Alina Galvão Spinillo
Carmen Sotomayor *Editors*

Development of Writing Skills in Children in Diverse Cultural Contexts

Contributions to Teaching and Learning

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Chapter 1
Development, Teaching, and Learning of Writing: From Word to Text

Alina Galvão Spinillo and Carmen Sotomayor

1.1 Introduction

The acquisition and development of written language has long been a topic of interest to researchers and educators. This interest stems from the complexity, breadth of the topic, and the relevance of written language to the academic and social success of individuals. As it is a multifaceted phenomenon, it is open to multiple theoretical perspectives and multiple approaches that range from writing words to writing texts of different genres. These approaches also cover different instances: the individual who faces the challenge of learning to write, the properties of written language, and the interaction between this individual and the social contexts in which writing takes place. Thus, writing a book about writing is not an easy task, although a very stimulating mission. To take on this challenge, as editors of this book, we share this responsibility with colleagues from different countries and with different specific knowledge on this subject, who discuss a large variety of topics concerning the acquisition and development of written language and writing practices in diverse social contexts.

Instead of presenting each of the chapters comprising this work, this introductory chapter deals with topics that permeate what is covered in the different parts of this book. For example, two perspectives pervade some of the chapters throughout this book. One of them deals with the different writing systems: their properties, notational aspects, and the relationship between oral and written language. The word and its constitutive units, such as phonemes and morphemes, are the focus of studies that approach writing from its representational nature. In the other perspective,

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attention falls on larger linguistic units like sentences and texts, focusing on skills and knowledge related to text composition. Although distinct, both perspectives are part of the acquisition and development of writing in general. Writing, therefore, requires understanding the organization of a representation system and developing the ability to compose texts, so that the writer has to deal with the different levels of writing: word, sentence, and text. In this way, the distinction between producing written language and using a given system of representation exists only in theoretical terms, in the service of an analysis that aims to deepen each of these aspects, which are undoubtedly articulated.

Becoming a writer involves a long journey that begins even before formal learning to read and write. Children who are not yet literate seek regularities and patterns in the writing system of their language, so that what is written can be accepted as a word and can be read (Dockrell & Teubal, 2007; Yamagata, 2007). The discovery of these regularities strongly depends on the degree of correspondence between sounds and letters in the spelling of words in a particular language (Seymour et al., 2003). Although important discoveries about the writing system can be made spontaneously, it is through instructional practices, especially those conducted in the school context, that children appropriate these regularities and apply them to their productions. Metalinguistic skills, such as phonological, morphological, grammatical, and textual awareness, have to be developed to guarantee the quality of the production of texts of different genres.

In addition to these skills, the writer is faced with the need to generate ideas, adapt the content of the text to a given audience and social context, and make appropriate linguistic choices that allow meeting communication goals. From this perspective, knowledge about textual genres becomes relevant. For example, knowledge about the structure of texts of different types (Fitzgerald & Teasley, 1986; Olinghouse et al., 2015; Spinillo & de Melo, 2018) and about the lexical diversity characterizing them (Olinghouse & Wilson, 2013) has a significant impact on the quality of the final product. Knowledge about textual genres originates from experiences lived in everyday situations (Cairney, 2005; Spinillo & Pratt, 2005). Thus, the compositional processes of texts also involve writing practices in different social environments, such as writing at home and at school (Hull & Schultz, 2001), and writing for different purposes and audience, as shown by the results of research on textual revision conducted by Spinillo (Chap. 5). The research findings reported by the author showed that children have a sense of audience, making changes to their texts that vary depending on the reader to whom the text is addressed.

Researchers have also dedicated themselves to exploring writing from a developmental perspective, seeking to identify developmental variations and patterns of skills as discussed by Pinto, Bigozzi, and Vettori (Chap. 6). The authors in this chapter analyze children's ability to write narrative texts from kindergarten until the end of primary school. This was done from theoretical discussions and research results that contribute to clarify the established interplay between lower- and higher-level processes involved in the development of writing in general.

Given this diversity of facets, it is not surprising that many children have difficulties when learning to write (Dockrell et al., 2014). These difficulties vary and may

be related to epistemological challenges (the nature of the language representation system that is being learned), to pedagogical challenges (methods of teaching and teacher's knowledge), and to the difficulties struggling writers have in acquiring and developing writing skills. In view of this, intervention studies assume a prominent role, since their main objective is to help children (both novice and struggling writers) to overcome language difficulties at word, sentence, and text levels. Many of these studies are conducted in controlled experimental situations, while others take place in the school setting. These investigations bring results that generate educational implications regarding teaching practices, didactic strategies, and discussions about the role of the teacher as a mediator in the learning of writing.

In this introduction, we decided to highlight certain topics that permeate the chapters comprising this book and that include, in a panoramic view, the promise contained in its title: to deal with topics related to the development, teaching, and learning written language from diverse cultural contexts represented here by the eyes of researchers from different countries and different theoretical approaches.

1.2 The Role of Linguistic Knowledge of Grammar and Vocabulary in the Composition of Written Texts

An interesting aspect for the teaching of writing is the role that linguistic knowledge of grammar and vocabulary can play. There has been a great debate in recent decades about whether grammar should be taught when curricula have decidedly opted for a functional communicative perspective and for developing linguistic skills in students, rather than knowledge of the language system. This is the case of Latin America, where the teaching of grammar was left aside to concentrate on the development of linguistic skills in reading, writing, and speaking.

However, more studies (Myhill, 2011; Jones et al., 2012; Myhill et al., 2012, 2013, 2018) have once again recognized the importance of teaching, linguistic knowledge especially associated with the development of writing. This is reaffirmed by Sotomayor (Chap. 4) in her research on the teaching of sentences and word classes integrated with writing, finding that student texts improve in their textual structure and punctuation.

This approach, based on the systemic functional theory (Halliday & Mathiessen, 2004), proposes that students can choose different grammatical and lexical resources in order to produce meaning in their written texts. The emphasis is on the meaning of the different grammatical categories related to the discourses, rather than on the rules of the system. For this, metacognitive work with students in the classroom is essential, that is, reflection on the use of these linguistic resources for communicative purposes.

Myhill (Chap. 3) suggests that metacognitive work involves making these choices explicit in order to understand the effects of different choices among a range of diverse grammatical and lexical resources. The author argues that the use of grammatical terminology is already a metalinguistic activity, because it allows

children to speak and reflect on language. Metalinguistic work in writing involves not only talking about and reflecting on language but also using this metalinguistic knowledge when they are constructing their writing.

Another key element that favors metalinguistic reflection is dialogic conversation about their linguistic choices and their relationship with writing. This conversation for learning allows students to verbalize their thinking about their grammatical choices and to make visible the relationship between these choices and the meaning of their texts. One of the objects of metalinguistic analysis that appears the most is lexical selection. It seems that children find it easier to reflect on the use of words than to think about linguistic choices at the sentence or text level. Cardoso, Coimbra, Calil, Graça, and Pereira (Chap. 7) find something similar in their chapter on grammatical choices and narrative quality, underlining the explicit presence of children's thinking about lexical selections at the time of writing.

Also, Sotomayor et al. (2020), in their review of Latin American curricula in primary education, find a greater presence of learning objectives related to metacognitive activity at the lexical level than at the grammatical or morphosyntactic level, which indicates that lexical reflection seems to be more installed in the study programs.

Although grammar is once again considered in school curricula as a resource for writing, this seems to be a still incipient and difficult practice for teachers, as pointed out by Cardoso et al. (Chap. 7). On the other hand, it is important to pay attention to the influence that the orientations of school curricula and standardized tests can have on the teaching of writing. In the case of Latin America, UNESCO carries out the Comparative and Explanatory Regional Study (ERCE) in 18 countries of this region, which consists of several tests on school disciplines, one of them on writing (UNESCO, 2022). This test is aimed at 3rd- and 6th-grade students who write narrative and expository texts based on stimuli. This evaluation is giving a signal to teachers about the importance of written production, which could provide more opportunities for an approach to teaching grammar and vocabulary integrated with writing and with a strong metalinguistic reflection component, as we pointed out previously.

This is not the case in the UK where, as suggested by Myhill (Chap. 3), there is now a return to a more traditional teaching of grammar in the school curriculum with an emphasis on explicit teaching rather than as an opportunity for learning. The author points out that metalinguistic reflection, which allows children to make grammatical choices as writers, will depend largely on the prescriptions of the study plans, standardized evaluations, as well as the pedagogical practices of the teachers who they may or may not facilitate it.

A similar problem is outlined by Cardoso et al. (Chap. 7), who recognize the guidelines of the Portuguese study programs to integrate grammar and writing during the revision and rewriting of texts under construction. However, the authors suggest, it is still not clear how to lower this curricular orientation to pedagogical practice in the classroom. They argue that collaborative writing could be a strong pedagogical tool, as it generates dialogues that make children's grammatical choices explicit and lead them into discussions that refine their linguistic knowledge within

the writing process. However, they state that the relationship between grammatical knowledge and writing is not yet clear in the pedagogical practice of teachers.

In short, we could say that, although school offers students an open field to reflect on the language and make grammatical or lexical choices to improve their texts, this presupposes a deep knowledge and understanding of these linguistic resources by teachers that allow to guide their students to an effective metalinguistic reflection for the construction of quality texts.

1.3 The Role of Metacognitive and Metalinguistic Activities in Written Composition and in Learning to Write

In the field of psychology, several authors give great relevance to metacognition. Flavell (1979), for instance, emphasizes its recursive nature that allows making the individual's cognitive processes the object of their own thinking. Vygotsky (1986), in turn, considers it a second-order cognition. Piaget (1968) adds that metacognition involves both conscious awareness and the capability of communicating one's rationale. According to Spinillo (2022), typical questions that characterize Piagetian clinical interviews ("Why did you do it like that?" "How did you discover that?" or "Can you explain to me how you were thinking when you resolved this situation?") demand the interviewee to perform a metacognitive activity, taking their way of thinking as an object of their own thinking which, in this context, is explicitly mentioned to the interviewer. Metacognition is, therefore, the process of thinking about one's own thinking and learning, involving self-regulation and self-monitoring. This process is also considered in learning situations aimed at the development of basic cognitive skills and in those aimed at the development of specific linguistic skills, as in situations of written language instruction.

In this scenario, in the field of language, emerges the term *metalinguistic activity*. In the words of Tolchinsky (2000, p. 31):

> The Greek prefix *meta* means roughly *beyond* (off, over, away) and has a reflective sense. When anteposed to particular nouns – such as in *metaprocedural, metaphonological* – it means turning to what is denoted by the noun. In *metaprocedural,* it means turning to an 'x' called procedural; in *metaphonological,* it means turning to an 'x' called phonological. Therefore, when we use the term *metalinguistic,* we are denoting a turning to whatever we call *linguistic*. We can talk about things, events, or people but also about language. When using language *metalinguistically* the object or topic of our talk is a linguistic event.

Therefore, *metalinguistic activity*[1] is a recursive activity that consists of the ability to make language (oral or written) and its dimensions (lexical, syntactic, phonetic, discursive) an object of reflection and analysis. According to Camps and Milian (2000, p. 1), this activity involves the "capacity to look at the language from outside."

[1] Regarding written language, different interpretations are given to the relationship between metacognitive and metalinguistic activities, as discussed by Camps and Milian (2000).

With regard to written language, metalinguistic and metacognitive activities are imbricated in situations of spontaneous production and in situations of instruction. In spontaneous situations, Calil and Myhill (2020) documented that, during the review of their texts, children produced visible evidence of metalinguistic activities when they erased some passages from the stories they had written in collaboration with another child. In this same line of investigation, Cardoso, Coimbra, Calil, Graça, and Pereira (Chap. 7) discuss metalinguistic activities performed during the process of writing texts, in a study that revealed that collaborative writing and dialogue between children contribute to activate the metalinguistic knowledge and improve the quality of writing. Still on the textual review, Dix (2006) and Spinillo (2015) observed that when asked, children were able to identify the changes they made in their texts and to explain the reasons that guided these changes. One may say that these children performed a metalinguistic activity when reviewing their texts and, also, performed a metacognitive activity when reflecting and explaining the reasons that justified the decisions taken during the review, that is, they become aware of their way of reasoning.

In this same line of discussion, several authors comment on metalinguistic understanding young writers reveal about their own grammatical choices. This understanding goes beyond the knowledge of grammatical metalanguage, as it also involves the capacity to use that knowledge which, in turn, can be stimulated through dialogic talk in the classroom. Myhill (Chap. 3) states that through dialogic talk in the classroom (or learning talk), it is possible to foster metalinguistic understanding about writing. In this perspective, collaborative textual production assumes a prominent role in the school context, as it leads students to identify problems during the writing process and to explain the way they think about these problems.

Metalinguistic activities refer to another aspect of fundamental relevance, which is the explicit teaching of the different dimensions of writing. For example, explicit teaching of morphological regularities has a positive effect on the writing of words in Brazilian Portuguese (do Rocio Barbosa et al., 2015), just as systematic teaching of spelling can give learners the opportunity to compare, analyze, discuss, and explain their knowledge about spelling (Meireles & Correa, 2005), as well as to develop skills and metacognitive strategies that contribute to spelling progress (Cordewener et al., 2018). Likewise, the explicit teachings of the constituent parts of stories have a positive impact and result in the written production of cohesive and elaborate narratives (Spinillo & de Melo, 2018). The same positive effect is observed in relation to expository (Englert et al., 1988). This discussion evidences that explicit instruction is an essential instance capable of turning language into an object of analysis.

What is observed is that once children have become aware of the morphological regularities of words, grammatical rules, and the structure of texts, they are able to apply this knowledge to their written productions. The conclusion is that there is a relationship between metalinguistic awareness and the development of writing at the word, sentence, and text levels. However, this relationship is not mentioned in official and public educational policies related to the teaching of writing, indicating

the lack of articulation between the empirical evidence from research in the area and the teaching proposals in the school context.

1.4 Writing Different Text Genres in Different Social Contexts

Various authors affirm the importance of knowledge of textual genres, since students who have a greater knowledge of the structure of different texts produce better writings (Fitzgerald & Teasley, 1986; Olinghouse et al., 2015; Spinillo & de Melo, 2018). It has even been found that working on genres and their structures is one of the most effective strategies for teaching writing (Graham et al., 2012).

Rodríguez-Gonzalo and Abad-Beltrán (Chap. 14) agree with this idea, pointing out that the teaching of writing must encourage practices that are contextualized in concrete communicative situations and offer students tools that help them interact in these situations through writing discursive genres. These genres are defined as stable types of texts through which people participate in society. The authors emphasize that teaching to write genres helps students to identify the audience, the goals to achieved, and the evaluation criteria, among others.

It has also been found that students have different knowledge about different types of texts. Gillespie et al. (2013) observed that children knew more about the structure of narrative texts than argumentative or expository texts. Álvarez (2010) attributes it to the fact that narrative texts predominate in school activities, even though expository texts are of great importance for all subjects. However, although the narrative structure is more familiar to children, some problems are detected, for example, in the endings, which are abrupt or poorly developed in children from 3rd to 10th grade (Marinkovich, 2001; Sotomayor et al., 2013, 2016). Unlike narrative texts, understanding and producing expository texts is a more complex task for students, as they deal with more abstract topics, present unfamiliar concepts, and have more specialized vocabulary (Taylor & Beach, 1984). For this reason, the didactics of writing has led students to become familiar with various textual genres, providing opportunities to use these genres in authentic communication situations.

An example of the above is Guberman's study (Chap. 11), in which he shows how young preschool children can learn to create narrative and expository texts by combining oral and written language with various nonverbal graphic representations such as drawings and tables. In this approach to writing as a cultural activity that occurs in communicative contexts, educators expose children to a wide vocabulary, diverse text genres, writing skills, and knowledge of the world, even when they do not yet write. In this approach, texts can be made up of different meaning-making resources, such as written language, mathematical notations, maps, photographs, illustrations, tables, and graphs. All these resources favor the retention and processing of a large amount of information. Likewise, they promote a communication that, through these resources, transcends cultural, geographical, or temporal distances.

Regarding didactics, the author maintains that writing skills must be taught early and simultaneously, without waiting for children to master the alphabetic code. This is because working on genres early in specific communicative contexts allows children to expand their vocabulary and knowledge of the world, very important factors for writing. The development of vocabulary and knowledge of the world is very intertwined with the contexts of writing and literacy. Indeed, talking about written genres and thinking about their characteristics and themes provide more opportunities for students to hear new words and knowledge. The author suggests, for example, activities such as talking with peers about a story and then dictate their ideas to the teacher, so that the children become familiar with this written genre. Also write expository genres, using various graphic resources, such as those mentioned above.

From another point of view, Gómez (Chap. 12) analyzes children's writing practices in their homes or in nonschool contexts. His study shows that students write in their daily lives and have objects or artifacts in which they produce writing with defined communicative purposes. For example, the children write in their life diaries or agendas genres, such as poems, reflections, or songs, whose purpose is personal expression, but it also warns of the omnipresence of cell phones and the WhatsApp genre to communicate with peers for social communicative purposes, such as agreeing on homework or school work. An important aspect is that these artifacts allow to write anywhere and, therefore, writing is easier. However, the author shows that this natural and everyday writing at home and with their peers is not integrated at school and students get bored with the writing tasks proposed by their teachers. Therefore, Gómez suggests that the school should approach writing teaching considering the genres used by students and significant for them.

Very similar is Cordero's approach (Chap. 13) that introduces the topic of new literacies, a product of the technological revolution in the twenty-first century. The author states that when classes are over, the world is still connected through multiple new forms of communication that simultaneously involve reading, writing, and speaking. Students not only communicate through WhatsApp installed on their cell phones but also through video clips, audio or interactive video games, collaborative writing on the web, etc. These forms are redefining the way of communication in our society, especially between children and young people. Therefore, it is necessary to think about how to address literacy at school in dialogue with the new generations of students.

1.5 Difficulties in Writing: The Challenges That Children Face with Transcription and Composition Processes

The biggest problem in the acquisition and development of writing is that motor, cognitive, and linguistic processes concur simultaneously, competing during written production, demanding a great cognitive effort from students That is why many primary school children have difficulties with their writing. In general, these

struggling writers produce shorter and less organized texts at the sentence and paragraph level. Likewise, they present numerous mechanical, spelling, and grammatical errors (Dockrell et al., 2014) and show greater difficulties than their peers at the level of planning and revising their texts (Graham & Harris, 2003).

According to the previous description, two types of writing difficulties can be postulated: in the processes of transcription of writing (mechanical, spelling, and grammatical errors) and in the processes of written composition (short texts, less organized at the level of the sentence and the paragraph, difficulties in planning and revising). In addition, these processes are related to the executive functions of working memory and self-regulation.

Transcription processes provide the basis for writing. These allow the writer to translate their ideas and their oral language into visual symbols representing the written language. Transcription processes are described as the ability to handwrite and to transcribe the orthography of words (spelling) (Berninger & Amtmann, 2003), that is, to achieve the conversion of phonemes to graphemes and the sequence of graphemes in a word. Children with writing difficulties present significant problems for the transcription of phonemes to graphemes, write incomplete sentences, and show numerous spelling, punctuation, and capitalization errors (Dockrell et al., 2019).

It has been found that these basic transcription skills are one of the pillars of the quality of handwritten writing and have shown that transcription processes are associated with writing fluency, a fundamental aspect to release cognitive resources for written composition. The more automated handwriting and spelling are, the more memory resources are available for written composition (Alamargot et al., 2011; Graham & Harris, 2000). Therefore, students with difficulties in their transcription skills are at risk of presenting difficulties in their written composition (Berninger & Amtmann, 2003; Bisschop et al., 2017).

Composition processes are related to complex cognitive processes involved in the production of a text. The most agreed in the specialized literature are those proposed by Flower and Hayes (1981) of planning, translation (or textualization), and revision. The planning process involves writers thinking about what they are going to write and how to write it, including their purposes, generating ideas, and organizing ideas into a plan. Translation implies transferring what was planned to a written text. Finally, revision involves reading and editing the written text to improve it (Graham & Harris, 2003). Struggling writers tend to focus their attention on generating ideas and writing about a topic as they know or remember it but pay insufficient attention to the rhetorical goals of the text, its overall organization, or thinking about the reader's needs. Also, there is evidence that these students do not have knowledge about the character of writing and its written genres (Graham et al., 2015) or they use language patterns typical of oral genres (Myhill, 2018). Furthermore, these children are not motivated to write and find it difficult to persevere in their texts to improve them (Graham & Harris, 2003).

Regarding the factors behind these difficulties, Dockrell et al. (2019) recognize proximal factors and distal factors, highlighting the need to accurately identify them for effective instruction or interventions. Proximal factors are directly related to

writing problems; these are transcription, handwriting, and spelling. Proximal factors also influence written composition processes, as struggling writers must use their cognitive resources in transcription and fail to attend to the sentence or text level.

Distal factors play a more indirect role in writing problems; these are oral language, reading, working memory, and executive functions. However, they can constitute important barriers in the written production of struggling writers (Dockrell et al., 2014). It has also been found that as children achieve proximal transcription skills, distal factors, such as reading and working memory, may play a greater role in text composition (Dockrell et al., 2019). Therefore, to investigate writing problems, both types of factors, proximal and distal, must be considered.

Arfé and Dockrell (Chap. 10), as well as Correa (Chap. 2), underline that the characteristics of the languages are another element that must be considered to analyze writing difficulties at the level of transcription. It has been observed that written production in languages with more transparent orthography, such as Spanish, presents fewer spelling difficulties than in languages with opaque orthography, such as English. Likewise, the characteristics of the textual genres are related to the difficulties of written composition. It has been documented that expository texts present greater difficulty than narrative texts in their structure and due to the presence of a more complex vocabulary (Álvarez, 2010).

It is essential to design appropriate interventions to address the writing problems of these students. In the first place, some authors, such as Correa (Chap. 2), have emphasized the importance of strategies to teach spelling in a systematic way, so that these offer students opportunities to observe, compare, analyze, and discuss their knowledge about spelling. In the same perspective, Arfé and Dockrell (Chap. 10) highlight that interventions in spelling and handwriting are more effective when multimodal strategies are used, integrating motor, visual, and phonological processes. Systematic teaching and spelling are also found to be more effective than natural or incidental learning in students with learning disabilities. However, the advantage of combining the systematic teaching of spelling conventions with self-instruction learning, generated by the student independently, has also been documented.

Second, there is empirical evidence that morphological awareness contributes to writing skills in both transparent and less transparent languages. For example, Martinell and Auza (Chap. 9), when discussing the difficulties of writing in children with development language disorder (DLD), show that morphological analysis is an opportunity to have a greater understanding of the written language of these children, who have a recognized difficulty at the morphological level. The analysis of segments of the word, such as morphemes, which have semantic and syntactic implications, can develop in these children an awareness of the morphological units within the word, which benefits them in the acquisition of the writing system.

Finally, Arfé and Dockrell (Chap. 10) highlight that interventions that use oral language can be effective in working on writing at the sentence and text level with children with writing difficulties. Something similar is proposed by Fisher et al.

(2010), who find that oral conversation can be a fundamental support for written composition both in students with and without writing difficulties.

In short, we have shown that writing problems are complex and occur at the level of the word, the sentence, and the text, which can lead to problems of transcription and written composition. We have also noticed the presence of proximal factors that are at the base of writing problems, as well as distal factors that indirectly also influence writing difficulties. That is why one of the most relevant current challenges is that teachers can accurately identify their students' writing problems and determine specific and effective intervention strategies. This implies a great challenge for the preparation and continuous training of primary school teachers.

1.6 The Role of Interventions in Writing Development

"Intervention means to step in and take some action intended to divert the child from his or her present course onto a better one" (Elbro & Scarborough, 2004, p. 361). Although originally mentioned in relation to reading, this statement perfectly applies to writing. Intervention may take different forms and can be undertaken at various moments during the course of writing development: before formal instruction begins, during the early years of schooling, and beyond that.

Intervention studies[2] have attracted the attention of researchers of different theoretical affiliations and vary, depending on the considered linguistic unit (word, sentence, or text as a whole), the nature of the proposed methodology (individual, collaborative, dialogic), and the scenario where they occur (classroom, controlled experimental situations). All these studies, as highlighted by Vilar and Pascual (Chap. 15) in their meta-analysis, have in common that they aim to develop the ability to write and help the child to overcome difficulties. The underlying idea is that these investigations provide changes in the sense of having a positive impact on the quality of the final product, so that those who had the opportunity to participate in the intervention become competent writers. The study conducted by Tolchinsky, Fradéjas, Prieto, and Aguado (Chap. 8) is an example of this positive impact that was observed in the writing of texts of an argumentative nature on controversial topics.

Orthography (morphology, spelling), grammar, vocabulary, and textual structure are linguistic dimensions that have been the focus of these interventions, as some chapters of this book demonstrate. Three aspects deserve to be discussed about these interventions.

The first is that the positive impact seems to result from a combination of different linguistic dimensions and different ways of intervening (teaching methods). For

[2] Vilar and Pacual (Chap. 15) refer to intervention studies as treatments. According to these authors, treatments can be defined as the intentional application of a set of instructional activities in the target linguistic domain over a certain period of time in order to bring about positive changes in this domain.

example, the association between grammar and vocabulary in the same instructional situation can produce an improvement in the quality of students' texts, especially observed when grammar is treated in a communicative approach and with a focus on reflection on the language (Myhill et al., 2013; Sotomayor et al., 2020). Another important association is between grammar and textual structure, since grammatical knowledge involves more than sentence grammar, but rather text grammar, which is associated with the characteristics of the type of text being produced. From this perspective, knowing the structure of the text leads the writer to make appropriate grammatical choices, depending on the type of text being written and on the parts that compose it. The relevance of the combination of different aspects was also emphasized by López et al. (2021) regarding teaching revision strategies. According to these authors, teaching revision strategies alone are not enough to produce a positive impact on the quality of texts; rather, teaching these strategies should be combined with teaching students to have clear and explicit goals for their texts and to take their readers' perspective into account.

The second aspect is that explicit instruction has been systematically identified as a feature of successful interventions, whether offered individually or in collaborative situations. Many studies on the teaching of writing share the idea that explicit instruction allows important aspects of writing to be objects of knowledge to be analyzed, as in research focused on morphology and spelling (Cordewener et al., 2018), for grammar (Fontich, 2011; Myhill et al., 2012, 2013), and for textual structure (Donovan & Smolkin, 2006; Fitzgerald & Teasley, 1986; Spinillo & de Melo, 2018; Tolchinsky, 2006; Wells, 2008). Explicit teaching allows learners to become aware of linguistic dimensions that are the target of the intervention and, also, to become aware of the writing strategies they adopt. In this sense, explicit instruction is strongly associated with metalinguistic and metacognitive activities.

The positive role played by explicit instruction was documented by Graham et al. (2012), by Koster et al. (2015), and by Vilar and Pacual (Chap. 15) in meta-analysis conducted on writing intervention studies. What is observed is that some interventions proved to be more effective than others, making it necessary to know which these interventions are, especially from an educational perspective. In general, intervention studies bring, in an underlying way, an optimistic view of the possibilities of children by focusing on situations that seek to promote learning and development. Furthermore, they can be considered a link between research, theory, and educational practices.

The third aspect concerns the promotion of writing motivation of learners, which, in turn, is related to teaching of writing that encourages practices that are contextualized in communicative situations. In this perspective, writing is a social process involving knowledge about textual genres that help students to succeed in a wide variety of social situations in which writing is involved. In addition, the teaching should give opportunities to write about topics that are interesting for students (their beliefs, attitudes, opinions, habits) and promote a positive emotional environment. The notion of community of writers (Graham, 2018) and the writer's relationship to writing (Colognesi & Niwese, 2020) emerge as aspects to be considered in order to motivate students to write, as stressed by Concha and Spinosa (Chap. 16).

In view of these discussions, it is pertinent to look at the knowledge teachers need to acquire to teach their students to write. Flores-Ferrés et al. (2022), in Chile, and Rietdijk et al. (2017), in the Netherlands, reported that many teachers do not feel well prepared to teach writing, especially due to the lack of conceptual knowledge and practical tools. From this context, the final two chapters of this book deal with teaching and those who teach students to write. Colognesi, Deramaux, Lucchini, and Coertjens (Chap. 17) followed teachers over a year in a training-research program in which they were instructed to use effective writing practices in their classrooms. Flores-Ferres, van Weijen, van Ockenburg, Peze, Alkema, Holdinga, and Rijlaarsdam (Chap. 18) discuss the classroom application of three basic design principles for writing instruction. The authors in both chapters highlight the role played by in-service training to help teachers to adopt more effective practices in their classrooms and to become more competent writing educators.

One may conclude that it is necessary to provide teachers with instructional tools for teaching writing helping them, for instance, to develop their repertoire of instructional activities, to identify the most effective practices, and to train them to do research about specific problems concerning them and their students (Coburn & Penuel, 2016; Darling-Hammond, 2017; Flores, 2017; Kyriakides et al., 2009). For this, research results should be incorporated into teacher education programs.

1.7 Final Remarks

From the topics discussed above, some points are considered in this final section of this chapter. The order in which these points are presented does not reflect, at all, the order of relevance they have in the teaching and learning of writing, because, due to their complexity, it is impossible to choose those that are more important and those that are less important.

The first point to emphasize is that the dual task of writing and learning to write at school is, in the words of Rijlaarsdam and Couzijn (2000), a “double agenda” that requires the learner to assume different roles in this task: writer, reader, and critic. This change of roles throughout the learning situations requires explicit verbalization of metalinguistic knowledge and of the writing strategies used. This double agenda applies both to the text composition process and to the teaching of spelling, vocabulary, and grammar.

The second point, associated with the first, is that metacognition is a learning tool that involves metalinguistic activities. As a learning tool, it demands explicit teaching and dialogic talk in the classroom materialized through didactic sequences that promote awareness of the regulation strategies and knowledge about the different dimensions of written language.

The third point is that writing development is a never-ending task. This development occurs at different ages and school periods and is not limited to novice and struggling writers, as even individuals who have already mastered writing acquire new knowledge and skills related to the ability to write. An example of this is the

learning of academic and analytical writing in higher education. Writing courses at university levels seek to develop students' composition competence in order to help them to meet the challenges demanded by the different academic subjects. In fact, written composition is a crucial task in academic life that requires mastering specialized vocabulary and discourse typical of different fields of knowledge. Another example of this never-ending task refers to learning to use writing in different social contexts to achieve different communicative purposes. This refers to the need for the individual, regardless of age and schooling, to master a wide variety of textual genres, so that written communication can occur successfully in the most varied social situations.

The fourth point is that writing is both a cognitive and social process. While a social process, writing involves motivational resources writers bring to bear when writing, writers' sense of competence, writers' relationship to writing, their communicative intent, and their background knowledge about the topic they want to communicate and about the reader to whom the text is addressed. In other words, in addition to the capabilities, perceptions, beliefs, and attitudes of the writers, the act of writing has communicative purposes that are shaped and constrained by the social context in which it takes place. In some contexts, writing has specific characteristics that are not observed in other situations, such as in the school context, where writing becomes a tool for learning. In the classroom, therefore, writing acquires a social function that refers to the first point discussed in this final section of this first chapter, which is the dual task of writing and learning to write at school.

These four points permeate and give texture to the long text produced in this book, which was authored by writers with different theoretical and methodological perspectives. These writers, however, had the same communicative purpose, which was to contribute to an audience's knowledge about development, teaching, and learning of writing.

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References

Alamargot, D., Caporossi, G., Chesnet, D., & Ros, C. (2011). What makes a skilled writer? Working memory and audience awareness during text composition. *Learning and Individual Differences, 21*(5), 505–516. https://doi.org/10.1016/j.lindif.2011.06.001

Álvarez, T. (2010). *Competencias básicas en escritura [Basic writing skills]*. Octaedro.

Bisschop, E., Morales, C., Gil, V., & Jiménez Suárez, E. (2017). Fluency and accuracy in alphabet writing by keyboarding: A cross-sectional study in Spanish-speaking children with and without learning disabilities. *Journal of Learning Disabilities., 50*(5), 534–542. https://doi.org/10.1177/0022219416633865

Berninger, V. W., & Amtmann, D. (2003). Preventing written expression disabilities through early and continuing assessment and intervention for handwriting and/or spelling problems:

Research into practice. In H. L. Swanson, K. R. Harris, & S. Graham (Eds.), *Handbook of learning disabilities* (pp. 345–363). The Guilford Press.

Cairney, T. H. (2005). Literacy diversity: Understanding and responding to the textual tapestries of home, school, and community. In *Portraits of literacy across families, communities, and schools* (pp. 57–78). Routledge.

Camps, A., & Milian, M. (2000). Metalinguistic activity in learning to write: An introduction. In A. Camps, & M. Milian (Eds.), *Metalinguistic activity in learning to write* (pp. 1–28). Amsterdam University Press.

Calil, E., & Myhill, D. (2020). Dialogue, erasure and spontaneous comments during textual composition: what students metalinguistic talk reveals about newly-literate writers' understanding of revision. *Linguistics and Education, 60*. https://doi.org/10.1016/j.linged.2020.100875

Colognesi, S., & Niwese, M. (2020). Do effective practices for teaching writing change students' relationship to writing? Exploratory study with students aged 10-12 years. *L1-Educational Studies in Language and Literature, 20*, 1–25.

Coburn, C. E., & Penuel, W. R. (2016). Research–practice partnerships in education: Outcomes, dynamics, and open questions. *Educational Researcher, 45*, 48–54.

Cordewener, K. A. H., Hasselman, F., Verhoeven, L., & Bosman, A. M. T. (2018). The role of instruction for spelling performance and spelling consciousness. *Journal of Experimental Education, 86*(2), 135–153. https://doi.org/10.1080/00220973.2017.1315711

Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education, 40*, 291–309.

Dix, S. (2006). "What did I change and why did I do it?" Young writers´ revision practices. *Literacy, 40*(1), 3–10.

do Rocio Barbosa, V., Guimarães, S. R. K., & Rosa, J. (2015). O impacto do ensino de regras morfológicas na escrita [The impact of teaching morphological rules on writing]. *Psico-USF, 20*(2), 309–321.

Dockrell, J. E., & Teubal, E. (2007). Distinguishing numeracy from literacy: Evidence from children's early notations. In E. Teubal, J. E. Dockrell, & L. Tolchinsky (Eds.), *Notational knowledge: Developmental and historical perspectives* (pp. 113–134). Sense Publishers.

Dockrell, J. E., Ricketts, J., Charman, T., & Lindsay, G. (2014). Exploring writing products in students with language impairments and autism spectrum disorders. *Learning and Instruction, 32*, 81–90. https://doi.org/10.1016/j.learninstruc.2014.01.008

Dockrell, J. E., Connelly, V., & Arfè, B. (2019). Struggling writers in elementary school: Capturing drivers of performance. *Learning and Instruction, 60*, 75–84. https://doi.org/10.1016/j.learninstruc.2018.11.009

Donovan, C., & Smolkin, L. (2006). Children's understanding of genre and writing development. In C. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 131–143). The Guilford Press.

Elbro, C., & Scarborough, H. S. (2004). Early intervention. In T. Nunes & P. Bryant (Eds.), *Handbook of children's literacy* (pp. 361–382). Kluwer Academic Publishers.

Englert, C. S., Stewart, S., & Hiebert, E. (1988). Young writers' use of text structure in expository text generation. *Journal of Educational Psychology, 80*(2), 143–151.

Fitzgerald, J., & Teasley, A. (1986). Effects of instruction in narrative structure on children's writing. *Journal of Educational Psychology, 78*, 424–432. https://doi.org/10.1037/0022-0663.78.6.424

Fisher, R., Jones, S., Larkin, S., & Myhill, D. (2010). *Using talk to support writing*. Sage.

Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist, 34*, 306–311.

Flores, M. A. (2017). Practice, theory and research in initial teacher education: International perspectives. *European Journal of Teacher Education, 40*, 287–290.

Flores-Ferrés, M., Van Weijen, D., & Rijlaarsdam, G. (2022). Understanding writing curriculum innovation in Grades 7-12 in Chile: Linking teachers´ beliefs and practices. *Journal of Writing Research, 13*(3), 367–414. https://doi.org/10.17239/jowr-2022.13.03.02

Flower, L., & Hayes, J. R. (1981). A cognitive process theory of writing. *College Composition and Communication, 32*(4), 365–387. https://doi.org/10.2307/356600

Fontich, X. (2011). La enseñanza de la gramática en primaria y secundaria: algunas reflexiones y propuestas [The teaching of grammar in primary and secondary schools: some reflections and proposals]. *Da investigação às práticas, 1*(2). 38–57.

Gillespie, A., Olinghouse, N., & Graham, S. (2013). Fifth-grade students' knowledge about writing process and writing genres. *The Elementary School Journal, 113*(4), 565–588. https://doi.org/10.1086/669938

Graham, S., & Harris, K. (2000). The role of self-regulation and transcription skills in writing and writing development. *Educational Psychologist, 35*(1), 3–12. https://doi.org/10.1207/S15326985EP3501_2

Graham, S., & Harris, K. R. (2003). Students with learning disabilities and the process of writing: A meta-analysis of SRSD studies. In H. Lee Swanson, K. R. Harris, & S. Graham (Eds.), *Handbook of learning disabilities* (pp. 323–344). The Guilford Press.

Graham, S., Harris, K. R., & Santangelo, T. (2015). Based writing practices and the common core: Meta-analysis and meta-synthesis. *The Elementary School Journal, 115*(4), 498–522.

Graham, S. (2018). A revised writer (s)-within-community model of writing. *Educational Psychologist, 53*(4), 258–279.

Graham, S., McKeown, D., Kiuhara, S., & Harris, K. R. (2012). A meta-analysis of writing instruction for students in the elementary grades. *Journal of Educational Psychology, 104*(4), 879–896. https://doi.org/10.1037/a0029185

Halliday, M. A. K., & Mathiessen, C. (2004). *An introduction to functional grammar* (3rd ed.). Arnold.

Hull, G., & Schultz, K. (2001). Literacy and learning out of school: A review of theory and research. *Review of Educational Research, 71*(4), 575–611. https://doi.org/10.3102/00346543071004575

Jones, S., Myhill, D., & Bailey, T. (2012). Grammar for writing? An investigation of the effects of contextualized grammar teaching on students' writing. *Reading and Writing, 26*(8), 1241–1263. https://doi.org/10.1007/s11145-012-9416-1

Koster, M., Tribushinina, E., de Jong, P. F., & van den Bergh, H. (2015). Teaching children to write: A meta-analysis of writing intervention research. *Journal of Writing Research, 7*(2), 299–324. https://doi.org/10.17239/jowr-2015.07.02.2

Kyriakides, L., Creemers, B. P., & Antoniou, P. (2009). Teacher behaviour and student outcomes: Suggestions for research on teacher training and professional development. *Teaching and Teacher Education, 25*(1), 12–23. https://doi.org/10.1016/j.tate.2008.06.001

López, P., Torrance, M., Rijlaarsdam, G., & Fidalgo, R. (2021). Evaluating effects of different forms of revision instruction in upper-primary students. *Reading and Writing, 34*(7), 1741–1767. https://doi.org/10.1007/s11145-021-10156-3

Marinkovich, J. (2001). La competencia textual narrativa en adolescentes chilenos y españoles [narrative textual competence in Chilean and Spanish adolescents]. *Lenguas Modernas, 28-29*, 145–163.

Meireles, E. S., & Correa, J. (2005). Regras contextuais e morfossintáticas na aquisição da ortografia da língua portuguesa por criança. [Contextual and morphosyntactic rules in children's acquisition of Portuguese orthography]. *Psicologia: Teoria e Pesquisa, 21*(1), 77–84. https://doi.org/10.1590/S0102-37722005000100011.

Myhill, D. (2011). Harnessing grammar: Weaving words and shaping texts. In *Better: Evidence-based education, winter* (pp. 12–13).

Myhill, D., Jones, S., Watson, A., & Lines, H. (2013). Playful explicitness with grammar: A pedagogy for writing. *Literacy, 47*(2), 103–111.

Myhill, D., Jones, S., Lines, H., & Watson, A. (2012). Re-thinking grammar: The impact of embedded grammar teaching on students' writing and students' metalinguistic understanding. *Research Papers in Education, 27*(2), 139–166. https://doi.org/10.1080/02671522.2011.637640

Myhill, D., Jones, S., & Lines, H. (2018). Supporting less proficient writers through linguistically aware teaching. *Language and Education, 32*(4), 333–349. https://doi.org/10.1080/09500782.2018.1438468

Myhill, D. A. (2018). Grammar as a meaning making resource for improving writing. Contribution to a special issue Working on Grammar at School in L1-Education: Empirical Research across Linguistic Regions. *L1-Edu cational Studies in Language and Literature, 18*, 1–21. https://doi.org/10.17239/L1ESLL-2018.18.04.04

Olinghouse, N., & Wilson, J. (2013). The relationship between vocabulary and writing quality in three genres. *Reading and Writing, 26*, 45–65. https://doi.org/10.1007/s11145-012-9392-5

Olinghouse, N., Graham, S., & Gillespie, A. (2015). The relationship of discourse and topic knowledge to fifth graders' writing performance. *Journal of Educational Psychology, 107*(2), 391–406. https://doi.org/10.1037/a0037549

Piaget, J. (1968). *Six psychological studies*. Random House.

Rietdijk, S., Janssen, T., van Weijen, D., van den Bergh, H., & Rijlaarsdam, G. (2017). Improving writing in primary schools through a comprehensive writing program. *The Journal of Writing Research, 9*(2), 173–225. https://doi.org/10.17239/jowr-2017.09.02.04

Rijlaarsdam, G., & Couzijn, M. (2000). Syimulating awareness of learning in the writing curriculum. In A. Camps, & M. Milian (Eds.), *Metalinguistic activity in learning to write* (pp. 167–202). Amsterdam University Press.

Seymour, P. H., Aro, M., Erskine, J. M., & in collaboration with COST Action A8 network. (2003). Foundation literacy acquisition in European orthographies. *British Journal of Psychology, 94*(2), 43–174. https://doi.org/10.1348/000712603321661859

Sotomayor, C., Lucchini, G., Bedwell, P., Biedma, M., Hernández, C., & Molina, D. (2013). Producción escrita en la Educación Básica: análisis de narraciones de alumnos de escuelas municipales de Constitución, Empedrado y Tirúa [Written production in primary education: Analysis of narratives of students from municipal schools in Constitución, Empedrado and Tirúa]. *Onomázein, 27*, 54–77.

Sotomayor, C., Gómez, G., Jéldrez, E., Bedwell, P., Domínguez, A. M., & Ávila, N. (2016). Evaluación analítica de la escritura de estudiantes de 4° año básico en Chile [Analytical evaluation of the writing of 4th grade students in Chile]. *Onomázein, 34*, 381–425. https://doi.org/10.7764/onomazein.34.21

Sotomayor, C., Coloma, C. J., Osorio, G., & Chaf, G. (2020). Vocabulario y gramática desde el enfoque comunicativo del área de Lenguaje en los documentos curriculares de Hispanoamérica [Vocabulary and grammar from the communicative approach in Language in the curricular documents of Latin America]. *Revista Española de Lingüística Aplicada., 3*(1), 327–351.

Spinillo, A. G. & Pratt C. (2005). Sociocultural differences in children's genre knowledge. In T. Kostouli (Ed). Writing in context(s): Textual practices and learning processes in sociocultural settings. (pp. 27–48). Springer.

Spinillo, A. G. (2015). "Por que você alterou isso aqui?" As razões que as crianças adotam quando fazem alterações ao revisar seus textos ["Why did you change this?" The reasons children adopt when revising their texts]. *Letras de Hoje, 59*(1), 32–39. https://doi.org/10.15448/1984-7726.2015.1.18348

Spinillo, A. G., & de Melo, K. L. R. (2018). O papel do conhecimento acerca da estrutura do texto na escrita de histórias por crianças [The role of knowledge about the structure of the text in the writing of stories by children]. *Educar em Revista, 34*(69), 277–292. https://doi.org/10.1590/0104-4060.54654

Spinillo, A. G. (2022). Metacognição e aprendizagem na sala de aula: experiências de ensino nos campos da linguagem e da matemática [Metacognition and learning in the classroom: Teaching experiences in the fields of language and mathematics]. In H. V. Corso, & T. C. Pollo (Eds.), *Intervenções com foco na aprendizagem: clínica e escola* (pp. 177–191). Vetor Editora. ISBN: 978–65–89914-96-9.

Taylor, B. M., & Beach, R. W. (1984). The effects of text structure instruction on middle-grade students' comprehension and production of expository text. *Reading Research Quarterly, 19*(2), 134–146. https://doi.org/10.2307/747358

Tolchinsky, L. (2000). Contrasting views about the object and purpose of metalinguistic work and reflection in academic writing. In A. Camps & M. Milian (Eds.), Metalinguistic activity in learning to write (pp. 29–48). Amsterdam University Press.

Tolchinsky, L. (2006). The emergence of writing. In C. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 83–95). The Guilford Press.

UNESCO. (2022). El estudio ERCE 2019 y los niveles de aprendizaje en Escritura ¿Qué nos dicen y cómo usarlos para mejorar los aprendizajes de los estudiantes? [The ERCE 2019 study and learning levels in Writing. What do they tell us and how to use them to improve student learning?]. UNESCO-OREALC.

Vygotsky, L. (1986). *Thought and language*. MIT Press.

Wells, D. (2008). Development of writing abilities in childhood. In C. Bazerman (Ed.), *Handbook of research on writing* (pp. 491–514). Taylor & Francis Group.

Yamagata, K. (2007). Differential emergence of representational systems: Drawings, letters and numerals. *Cognitive Development, 22*, 244–257.

Part I
Spelling, Vocabulary, and Grammar in Written Texts

Chapter 2
Learning to Spell in Brazilian Portuguese: Children's Patterns of Spelling Errors and Unconventional Word Segmentation

Jane Correa

2.1 Introduction

In the school context, written language is the instrument par excellence for learning the different subjects that form the syllabus. In this way, difficulties in learning written language have a great impact on the school trajectory of any learner, imposing serious obstacles to the cognitive and socio-emotional development of children and young people of school age.

Writing is a very complex skill, as it involves several other linguistic-cognitive skills, including reading, as well as different types of knowledge, including the reader's knowledge of word and the world. In the study on the written production of the text, Pontecorvo (1997) distinguishes two levels of analysis: written language and language writing. At the level of written language, attention is focused on understanding the skills and knowledge related to text composition. From the perspective of language writing, the focus is on the own writing process and on the linguistic materiality of the text, which includes the domain of spelling, the object of this chapter.

There are several aspects involved in the learning of spelling by the learner, which comprises the linguistic, cognitive, and socio-affective domains. Initially, it is important to make some considerations about the socio-affective aspects involved in the domain of spelling, since writing leaves marks, not only on the surface on which it is made but also on who writes.

On the one hand, writing according to the conventions of spelling norm confers social prestige to those who master them. On the other hand, success in school learning is associated with the intelligence, discipline, interest, and effort of the learner (Correa & MacLean, 1999; Correa, 2015). The presence of spelling errors in writing exposes to others how far the child is from the qualities attributed to school

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success and how close to unflattering attributes that harm the construction of self-esteem. Numerous spelling errors are visible marks of what is not known, often being attributed to people with learning difficulties, the labels of undisciplined, unmotivated, disinterested, or lazy. Often, children with difficulties in school learning consider themselves to be unintelligent and underestimate their own abilities. This negatively impacts the construction of their self-esteem and their bond with learning (Gomes et al., 2018), harming the relationships they establish with the teacher and their peers in the classroom.

To avoid exposure, the child then starts to avoid writing or to write very little, generally, elaborating short and disconnected sentences from the use of words whose spelling are already known. Understanding the linguistic-cognitive aspects involved in the domain of spelling is essential for planning a learning path that leads the child to feel confident when writing.

Considering the writer-text-reader interaction, the care with the spelling in the text expresses the consideration the writer, by paying attention to spelling, gives to the reader (Koch & Elias, 2009). Spelling according to the conventions of the written standard makes the text understandable, facilitating communication between the writer and the reader. By paying attention to spelling, the writer helps the reader to go beyond the linguistic surface of the text without major difficulties, so that reading can become more fluid. This is possible since, with the practice of reading, the brain starts to quickly recognize words, relating the conventional spelling of the word (orthographic processing), its meaning (semantic processing), and pronunciation (phonological processing) (Ashby & Rayner, 2012). Thus, the sight of the written word immediately activates the information referring to the word, in an automated way and without conscious effort on the part of the reader, who can thus expend cognitive resources to understand the text. Therefore, being careful with spelling is a strategy the writer uses to facilitate communication with the reader and favor the sharing of their ideas.

The ease with which the child can carry out the writing activity depends on the internalization and consequent automaticity of the writing conventions (Limpo et al., 2020). The delay, or even the impossibility, in writing the words on paper during the writing activity can even lead the child to forget the subsequent ideas of their text, thus compromising the elaboration of sentences and their organization. The lack or partial knowledge of conventions of the writing system gives an idiosyncratic character to writing, resulting in a text understandable only with the help of the own child in the exact context of its production. After some time, this same text no longer makes sense, even for the child who wrote it.

In the production of the text, the writer must coordinate the flow of ideas with the act of writing, whether on paper or on digital devices. Thus, the precision and speed with which the writing is carried out allows the writer to maintain the continuity of the theme and the development of ideas in text elaboration. Difficulties in the domain of spelling compromise the fluency of writing, bringing damage both in terms of quantity and quality of written production (Gregg & Mather, 2002; Limpo et al., 2020). Omissions of words or even sentences are frequent; the delay, or even the impossibility, in writing the words on paper during the writing activity can lead

the child to forget about subsequent ideas, thus compromising the elaboration of sentences and their organization in the text. This ends up compromising the textual progression, negatively impacting the construction of text coherence by the writer.

Learners with poor writing skills tend to spend a lot of time spelling words (Gregg & Mather, 2002). The fact that many cognitive resources are focused on how to spell words hinders the performance of more complex cognitive operations required by the text composition process (Berninger et al., 2002; Graham & Harris, 2000; McCutchen, 2000). In short, a well-developed orthographic processing is fundamental for the elaboration of the written text, as it ensures that the writer does not face frequent interruptions to the flow of selection, organization, and development of ideas, thus contributing to the implementation of monitoring processes and the regulation of activity in terms of composition.

2.2 Learning to Spell

Learning is a transitive verb: whoever learns, learns something. In this way, we have two basic elements for understanding the learning process: the subject who learns and the learning object (Vergnaud, 1985). Thus, in the investigation of spelling learning, it is important, on the one hand, to describe which skills contribute to this learning and how such skills, as well as the learner's knowledge, are transformed throughout this process. On the other hand, it is important to consider the constitution of the learning object, in this case the spelling, which by nature imposes epistemological obstacles to the subject who learns. Thus, learning spelling will require the development of specific cognitive skills, which will differ from other objects of knowledge (Vergnaud, 1985). In this way, investigating the learning of spelling means considering the following: (a) the skills that, from the subject's point of view, enable them to write according to the norm and (b) the nature of the spelling system. The language in which the subject learns will influence the learning process itself, as well as the cognitive resources the learner uses to appropriate spelling knowledge.

2.2.1 The Object of Learning: Spelling

The way spelling should be learned is still a matter of debate. On the one hand, there are those who advocate that such learning should be carried out in a natural and informal way, using self-instruction. On the other hand, there are those who defend that spelling knowledge should be an object of explicit and systematic teaching. From the perspective of self-instruction learning, the development of spelling skills would result from the experience with reading, since when reading, the learner would be exposed to the conventional spelling of words. This practice is in line with the perspective that learning to read and write should occur naturally through

children's participation in different literacy contexts, that is, from their participation in activities requiring the use of reading and of writing.

In fact, the practice of reading contributes to develop spelling knowledge, but less effectively than through explicit teaching. Although reading and writing both involve mastering the conventions of the writing system, the distinction between spelling irregularities and regularities may vary, depending on the perspective of the reader or the writer. There would be "reading spelling regularities" and "writing spelling regularities" (Morais, 2005), since, from the graphophonic point of view, there is greater consistency of letter-sound relationships in reading than in the phonographic correspondence in writing. In cases of multiple correspondence between letters and sounds, irregularities are experienced both in reading and writing, when a grapheme represents several phonemes. Nevertheless, in cases where a phoneme is represented by different graphemes, the reader does not experience any ambiguity in converting the grapheme into a phoneme. However, in writing, the doubt about the appropriate representation for the phoneme in spelling remains. In this way, the child has a greater number of regularities when reading the words in the text than in their writing.

Although children can, depending on their experience, learn certain spelling patterns without being formally educated, pedagogical practices for spelling mastery based only on natural learning, that is, carried out in an incidental and informal way, have shown limited reach for children with typical development (Bruck et al., 1998; Treiman, 2018). Those practices also prove to be unproductive for children with learning difficulties (Graham, 2000). Natural learning has shown limited contribution when compared to systematic teaching of spelling conventions in various performance measures.

Teaching spelling does not mean advocating a return to the traditional method of giving children lists of words for them to memorize but rather leading the learner to understand the alphabetic writing system and spelling rules. In this sense, the systematic teaching of spelling should be organized with the principle of offering opportunities for the child to observe, compare, analyze, discuss, and explain their knowledge about spelling (Meireles & Correa, 2006; Morais, 1998) as well as to develop skills and metacognitive strategies that contribute to spelling progress (Cordewener et al., 2016; Cordewener et al., 2018).

Despite the greater effectiveness of explicit teaching for spelling mastery (Graham & Santangelo, 2014), both forms of learning, implicit and explicit, present singularities that make them important in their way to promote the development of children's writing skills. The association of systematic teaching of spelling conventions with incidental learning practices may even prove to be more effective than either of these approaches alone (Graham, 2000). Thus, for the learning of spelling knowledge by the child, it is important to organize the explicit teaching of spelling in a systematic and meaningful way, associated with self-instruction learning, depending on the child's participation in different literacy contexts. With this, the child is provided with the opportunity to participate in more natural writing activities in which the spelling knowledge learned can be applied.

2.2.2 The Nature of the Spelling in Which One Learns to Write

If the alphabetic orthographies were totally transparent, that is, if there was absolute regularity in the relationship between the sound pattern and the graphic pattern, the knowledge of the correspondence between sounds and letters would be enough for the development of spelling skills. That is, in a totally transparent writing system, the spellings of words would be predictable, resorting to phonographic correspondences, since a phoneme would be represented by a letter (or group of letters), and this same letter (or group of letters) would only represent a single phoneme. Irregularities from the phonographic point of view (sound for letters) in alphabetic orthographies imply the existence of multiple representations for a given phoneme, as in the possibility that a grapheme represents different phonemes, generating plausible spellings for certain words, although not sanctioned by the spelling conventions.

Seymour et al. (2003) compared several alphabet-based European languages regarding their complexity, adopting as one of the criteria the degree of regularity of correspondence between sounds and letters in the spelling of words. The different orthographies were organized in a continuum from the absolute regularity of phoneme-grapheme correspondences (maximum transparency) to the extreme in terms of opacity or irregularity of such correspondences. In this way, spelling would be so much more opaque, the more irregularities observed in the phonographic correspondences in the spelling of the words. In the comparative analysis of European languages carried out by Seymour et al. (2003), according to the regularity-irregularity axis of phonographic correspondences, we would have the following sequence, comparing the following Latin orthographies: Italian, Spanish, European Portuguese (at a central point of the continuum), and French.

The unpredictability in the spelling of words at the phonographic level does not nullify the possibility of predicting the spelling of such words at another level of language, such as morphology. In this case, consistency in spelling of morphemes makes it possible to spell words correctly, the subject's morphological knowledge will significantly contribute to the development of spelling skills (McCutchen & Stull, 2015). The contribution of morphology to spelling is more expressively documented in opaque languages, such as English and French (Levesque et al., 2021; Mussar et al., 2020). The importance of morphology for the writing of school-age children has also been investigated in regular orthographies. There is empirical evidence suggesting the contribution of morphological awareness to the development of writing skills also in transparent orthography, as in Italian (Angelelli et al., 2014) and Spanish (Defior et al., 2008), or even in relatively transparent orthographies, such as Brazilian Portuguese (Cardoso et al., 2008; Guimarães et al., 2014; Guimarães & Mota, 2018; Mota, 2012).

In addition to the importance of morphology for learning different orthographies, it is questioned in which period the independent contribution of morphological awareness would impact learning. There is empirical evidence that the use of

morphology would be carried out late (Nunes et al., 1997). Children would be slow to use morphological knowledge in writing. There is also evidence that points to the significant contribution of morphology in the early years of learning to write (Breadmore & Deacon, 2019). In this way, morphological processing would have a specific and independent contribution from that observed for phonological processing from an early age to children's writing (Zhang & Treiman, 2020). In both cases, the empirical evidence comes, for the most part, from investigations in English (Deacon, 2008). From a phonological point of view, English is a very irregular language (Seymour et al., 2003), which greatly limits the use of phonological strategies in writing.

In short, to write according to the orthographic norm, the child integrates diverse knowledge and skills. Orthographic writing requires the understanding of regularities related to different levels of linguistic analysis and therefore cannot be performed immediately by mastering the alphabetic writing system in the initial years of formal education. In this way, mastering spelling will involve knowledge and skills to be learned throughout schooling.

2.3 The Development of Children's Spelling Skills in Brazilian Portuguese

Historically, the spelling of Brazilian Portuguese, like other alphabetic languages, was not organized solely guided by the phonographic principle. Other linguistic levels, such as etymology and morphology, are present in its constitution. Therefore, other levels of linguistic information, and other strategies, besides phonology, are necessary to be able to write according to the orthographic norms of Brazilian Portuguese. Despite the relative transparency of Brazilian Portuguese, it is not possible to predict the spelling of certain words just by knowing the regularity of correspondences between letters and sounds. In some cases, it is necessary to relativize the principle of letter-sound regularity, considering the position in which the representation of a phoneme is determined by phonemes or letters that are close to it in the word. Such regularities are called context regularities, and they continue to have as a reference the phonological level of analysis of the language.

As a Romance language, Brazilian Portuguese is an inflected language. Nouns and adjectives are modified in number or gender, while verbs are modified in tense, aspect, and person. Brazilian Portuguese also includes morphologically complex words; most affixes (prefixes and suffixes) come from Latin or Greek. To write according to orthographic norms, children need to develop morphological processing skills, since there are cases in Brazilian Portuguese in which the spellings of words follow regularities of a morphological nature, related to the class to which the words belong and the spelling of morphemes that constitute them.

Describing the development of spelling skills in Brazilian Portuguese allows to understand, in this process, the constitutive role of a language with a median

position in the regularity-irregularity continuum regarding phonographic correspondences (Seymour et al., 2003). Brazilian Portuguese is even considered more transparent than European Portuguese (Fernandes et al., 2008). Thus, empirical evidence obtained for European Portuguese cannot be generalized to Brazilian Portuguese and vice versa.

2.3.1 Context-Sensitive and Morphological Regularities in Brazilian Portuguese Spelling

To examine the relative difficulty of spelling regularities of frequent use in Brazilian Portuguese, according to their level of linguistic organization, we asked children from the 3rd to the 5th year of elementary school to write words whose spellings were predicted by spelling conventions of a context-sensitive and morphological nature. Morphological regularities were separated into those of inflectional nature, in which morphemes express certain grammatical information (number, tense, person, etc.), and those of derivational nature, in which new words are formed by the addition of affixes. The regularities evaluated are listed in Table 2.1.

Words were randomly assigned to four different dictation lists among other words, so that children could not find a writing pattern that could be repeated. The dictation sheet contained, in each item, a sentence with a blank space for writing the dictated word. The word was said once in isolation and repeated in the reading of the sentence contained in the child's dictation protocol. It was repeated once more in isolation so that the student could fill in the blank space in the sentence with the dictated word. The dictation was performed in the classroom, with the help of the class teacher, as part of routine activities. The examination of writing in critical contexts, that is, in the correct spelling of the evaluated endings, was analyzed by using cluster analysis. This allow to examine individual differences in children's

Table 2.1 Cluster profiles for context-sensitive and morphological regularities

Phoneme	Grapheme	Critical context	Examples
Context-sensitive regularities			
/R/	Rr	Intervocalic	Corrida (race); birra (tantrum)
/r/	R	Intervocalic	Cara (face); parada (stop)
Inflectional morphological regularities			
/ãw/	Ão	Simple future indicative	Falarão (they will speak; cantarão (they will sing)
	M	Present tense of verbs in ar	Falam (they speak); cantam they sing)
Derivational morphological regularities			
/z/	S	esa suffix	Marquesa (marchioness); princesa (princess)
	Z	eza suffix	Beleza (beauty); pobreza (poverty)

spelling skills, which we would not obtain if the data were treated dichotomously, in terms of the presence or absence of errors. Children were distributed into groups according to the spellings produced, respectively, for context regularities (Table 2.2) and morphological regularities of inflectional (Table 2.3) and derivational nature (Table 2.4).

Context-Sensitive Rules

The letter *r* at the beginning of a word represents the phoneme /R/, as rua (street). When between vowels, it represents the phoneme /r/. For the representation of the phoneme /R/ when between vowels, it is necessary to use two letters *r*, forming the digraph *rr*, as in *carro* (car).

In the first group, children are moderately skilled at spelling words with phoneme /r/. Children in the second group are skilled at spelling those words. In the third group, children are skilled at spelling words in all critical contexts.

Examination of spellings throughout schooling reveals a pattern of development in which the child becomes more skilled, initially, in one of the critical contexts, before becoming competent in both. The representation in which the child is most skillful is the one which is also presented in high-frequency words. In year 5, most children are able to perform well in representing both critical contexts.

Inflectional Morphological Rules

The ending /ãw/ is written as *ão*, when it comes to representing the future tense of verbs for the third person plural – *eles partirão* (they will depart). When representing the present tense of verbs ending in *ar*, write the ending with *am*. The child could only spell words with such endings according to spelling conventions through the use of their morphological knowledge in solving the ambiguity presented in the writing of such endings.

In the first group (skilled at -*ão* ending), children represent the ending /aw/ using the ending *ão*. It is important to say that nouns very familiar to children ending in / aw/ are represented by *ão*.

Table 2.2 Cluster profiles for context-sensitive rules

		Moderately skilled phoneme /r/	Skilled phoneme /r/	Skilled all critical contexts
		(*n* = 15)	(*n* = 40)	(*n* = 88)
Phoneme /R/	M	.39	.41	.93
	SD	.27	.21	.09
Phoneme /r/	M	.57	1.00	.99
	SD	.27	.00	.04
3rd year	*n*	10	20	23
	%	19	38	43
4th year	*n*	1	12	20
	%	3	36	61
5th year	*n*	4	8	45
	%	7	14	79

Table 2.3 Cluster profiles for inflectional morphological rules

		-ão/ -am endings		
		Skilled -ão ending	Skilled -am ending	Skilled all critical contexts
		($n = 48$)	($n = 46$)	($n = 42$)
-am ending	M	.19	.71	.92
	SD	.20	.27	.12
-rão ending	M	.90	.29	.93
	SD	.12	.23	.09
3rd year	*n*	12	8	4
	%	50	33	17
4th year	*n*	19	19	7
	%	42	42	16
5th year	*n*	17	19	31
	%	25	28	46

Table 2.4 Cluster profiles for derivational morphological rule

		Skilled eza suffix	Skilled esa suffix	Skilled all critical contexts
		($n = 25$)	($n = 72$)	($n = 41$)
Suffix esa	M	.10	.90	.76
	SD	.13	.18	.18
Suffix eza	M	.60	.21	.73
	SD	.31	.20	.19
3rd year	*n*	19	23	8
	%	38	46	16
4th year	*n*	5	33	16
	%	9	61	30
5th year	*n*	1	16	17
	%	3	47	50

For children in the second group (skilled at -am ending), the preferred way of representing the ending sound is made by the ending *am*. Such an ending designates the present tense of verbs. Narratives of children in the early years make a lot of use of the present tense.

In the third group (skilled at all critical contexts), the number of correct spellings in writing the ending /aw/ is significantly higher than expected due to the indistinct use of both endings. Children in this group are not exclusively attached to a particular representation for spelling verbs with /aw/ ending, making appropriate use of morphological information.

The percentage of children classified in each of the spelling patterns indicates a qualitative change in the child's use of morphological information throughout schooling. The percentages of children who generalize the use of one or another

ending in the writing of the ending /aw/ are very close both in 4th and 5th years. With respect to the frequency distribution, it is initially expected the predominance of the form *ão* in writing. This is followed by alternation in the use of one or another graphic form, before the mastery of the appropriate spelling. The percentages of children who generalize the use of one or another ending in the writing of the ending /aw/ are very close both in 4th and 5th years that would be able to consistently spell /aw/ endings was 46%.

Derivational Morphological Rules
The ending /eza/ is written *eza*, when in a derivational morpheme that forms abstract nouns (*beleza,* beauty; *pobreza*, poverty) or *esa*, when in a morpheme used in the generation of a feminine form, such as in *duquesa* (duchess) and *norueguesa* (Norwegian woman). Again, to resolve the ambiguity in the writing of this ending, the child will have to use their morphological analysis skills.

The first group includes children who represented the phoneme /z/ preferably by the letter *z*. This indicates that these children were based on the alphabetical hypothesis that the letter *z* is the representation par excellence of the phoneme in question. Therefore, they spell only the morpheme *eza* in a conventional way.

For children in the second group (skilled at *esa* suffix), the preferred way of representing the phoneme /z/ is made by the letter *s*. Children, still guided by their sensitivity to phonology and understanding of the change in the sound value of the letter, according to their position in the word, recognize the legitimacy of the letter *s* in the representation of the phoneme /z/ as well as its higher frequency of use in these cases. In this way, words formed by the morpheme *esa* are written in a conventional way.

In the third group (skilled at all critical contexts), the number of correct spellings in writing both morphemes was significantly higher than expected due to the indistinct use of the letters *s* and *z* for spelling the phoneme. Children in this group are not exclusively attached to a particular phonological representation for word spelling, making appropriate use of morphological information.

The percentage of children classified in each of the spelling patterns varied considerably according to schooling, indicating a qualitative change in the use made of morphological information in writing during their development, the endings /eza/. Although the mastery of such orthographic regularities varies significantly according to children's schooling, the percentage of children in the 5th year that would be able to consistently spell /eza/ endings was 45%.

The analysis of the frequency of correct answers in the evaluated critical context regularities suggests that Brazilian children tend to master context regularity more easily when compared with morphological regularities, which corroborates Meireles and Correa's (2005) previous findings. The use of morphology by children to resolve ambiguities in writing is late, as also observed by Correa et al. (2016). Thus, there would be a progression in the domain of the different orthographic regularities in Brazilian Portuguese, starting with the writing of phonographic regularities, followed by the regularity of context, to the regularity of morphological nature. A similar sequence was also observed in more regular orthographies such as Spanish (Ford

et al., 2018) and Italian (Notarnicola et al., 2012). Finally, it is important to note that regularity of inflectional nature did not prove to be easier than that of derivational nature.

2.3.2 Children's Spelling Errors in Brazilian Portuguese Writing

Just as important as examining the pattern of correct spelling in critical contexts for understanding the development of children's spelling skills is to consider the pattern of errors made by them, particularly at their early schooling years. Error analysis can provide relevant information about their linguistic knowledge and the strategies used to write. In fact, much of our understanding of spelling development comes from analyzing children's mistakes and invented writing.

Spelling errors are not random but reflect the level of knowledge or skill that children have (Limpo et al., 2021). Thus, the analysis of these errors allows to observe in which orthographic context the child makes such errors and at what point in their school trajectory. Based on the nature and frequency of spelling errors, it is possible to establish a hierarchy between the different types of spelling rules and their mastery by children, thus examining the existence of a pattern in the development of spelling skills.

The use of dictation allows the evaluation of the child's spelling performance through the systematic control of orthographic syllabic patterns of dictated words, as well as the spelling regularities or irregularities to be examined. Text writing also offers a valuable corpus of analysis to assess spelling errors, as children are more likely to spell words as they normally do in their spontaneous writing. Furthermore, analysis on the production of written texts does not limit the nature of the errors to be found. Thus, through the analysis of spelling errors found in written texts, we can examine the nature and frequency of these in words that children chose to write.

Correa and Dockrell (2010) examined orthographic patterns present in the stories written by Brazilian children attending the 1st to 3rd years. The types of mistakes frequently found in these texts were:

(a) String of letters – writing sequences of letters that do not represent any existing word in the language. It is a typical prephonological spelling.
(b) Phonologically acceptable errors – use of a letter or group of letters that, although not the conventional representation for that word, are possible transcriptions for the phoneme. For example, the child writes *caza* instead of *casa* (house). Although the choice of the letter *z* is not appropriate to represent the phoneme /z/ in the word *casa*, this letter represents the phoneme in other words, such as *prazer* (pleasure) or *fazer* (to do)
(c) Illegal letter errors: there is the use of a letter that does not represent the target phoneme in any context of the language – *cato* instead of *gato* (cat). Generally, the child's choice is for a letter that would represent a phoneme analogous to the

target phoneme and that differs from it solely by the presence or absence of the voicing feature.

(d) Letter omission errors: omission of the representation of a phoneme presents in the enunciation of the word – *lina* instead of *linda* (beautiful).
(e) Illegal letter order errors – phonemes of the word are represented, but the letters of some are in the wrong order – *predeu* instead of *perdeu* [she/he lost]. This type of error occurs in complex syllabic patterns such as CCV or CVC.
(f) Morpheme omissions errors: *vai canta* instead of *vai cantar* (going to sing).
(g) Morpheme substitution errors: *beberão* (simple future) instead of *beberam* (past tense – drinked).
(h) Morpheme addition errors: *uma presente* instead of *um presente* (a present).

The frequency of each type of error is presented in Table 2.5. The phonologically acceptable errors were the most frequent, occurring in the writing of almost all the children participating in the study.

For analysis, Correa and Dockrell (2010) considered the errors made by more than 50% children (Table 2.5): phonologically acceptable errors, substitution of letters, omission of letters, and omission of morphemes. As expected, schooling contributed to decrease the frequency of spelling errors that express difficulties in phonological analysis and/or inappropriate phonographic correspondence (Table 2.6).

The proportion of phonologically acceptable errors throughout schooling reveals the importance that phonological processing has overexposure to print for writing development in Brazilian Portuguese. It is to be expected that with the increase in schooling, there would also be an increase in exposure to written material, at the same time that phonologically acceptable errors would decrease, which would indicate the relevance of the lexical strategy for writing. However, the proportion of phonologically acceptable errors in the 2nd and 3rd years suggests the importance of phonological processing for the construction of the orthographic lexicon in Brazilian Portuguese.

At all ages, children omitted letters and morphemes, suggesting that the production of fluent text demands information processing resources, which may contribute

Table 2.5 Error types produced by children in their written stories

Error type	Percentage of children producing error type	Range in numbers of errors per child
Morpheme substitutions	5	0–1
Illegal letter order	10	0–5
String of letters	16	0–5
Morpheme addition	22	0–4
Morpheme omission	54	0–8
Letter omissions	58	0–10
Illegal letter representation	69	0–28
Phonologically acceptable errors	93	0–43

Table 2.6 Patterns of error according to schooling

	Letter omission errors	Illegal letter representations	Morpheme omission errors	Phonologically acceptable errors
1st year	.13	.19	.08	.42
2nd year	.08	.15	.11	.62
3rd year	.09	.11	.14	.59

to omissions in writing. The frequency of illegal letters errors in writing was more common than omissions, suggesting that children were trying to spell the phonological sequence of words without mastering the appropriate representations to do so. Either through errors in phonologically acceptable representations or even through the presence of illegal letters errors, it can be seen that children were trying to represent the phonological sequence of the target words in their texts. However, these were not the only mistakes made. In the case of omission of morphemes, children are exclusively relaying on their speech for their writing. In speech, there is, for example, the omission of some verb endings (e.g., as in the verb phrase *vamos viajar* (let's travel), in which the phoneme /r/ is not pronounced). The success observed in spelling words determined by orthographic regularities of morphological nature is related to the development of morphological processing skills.

Examining the correlations between the types of errors allows to infer differences or similarities between them. Phonologically acceptable errors have a negative and statistically significant relationship with all other types of errors. On the other hand, illegal letter errors and letter omissions are positively correlated, which reiterates the fact that they are typical errors of children with phonological analysis difficulties and who lack the necessary knowledge of phonographic correspondence for a more accurate representation of words in writing.

2.3.3 Unconventional Lexical Segmentation in Brazilian Portuguese Writing

Correa and Dockrell (2007) analyzed the production of stories by Brazilian children in elementary school (1st to 3rd years) and showed the occurrence of unconventional segmentations in the writing of texts. Defining the limits of words in writing a text is not a simple task, even for children who have mastered graphophonemic correspondences. The existence of blank spaces in writing results in information the writer and reader must process in order to understand the text (Ferreiro & Pontecorvo, 1996). In children's writing, unconventional word segmentation has been observed in a variety of languages and contexts with more occurrences of hyposegmentation (failure to separate two or more written words with a space) than hypersegmentation (written words are divided into more than one segment). In Brazilian Portuguese,

there is a tendency for articles or prepositions not to be separated by blank spaces from the closest lexical words (nouns and verbs) in hyposegmentation (*omenino* instead of *o menino* – the boy). The occurrences of hypersegmentation also refer to the same word classes involved in hyposegmentation.

Correa and Dockrell (2007) examined the frequency of unconventional lexical segmentation in Brazilian Portuguese in the early years of schooling, as well as the relationship of such segmentations with children's orthographic development. Hyposegmentations are significantly more frequent than hypersegmentations in children's texts. The relative frequency of nonconventional segmentations decreases significantly until the 3rd year. Children showing a greater number of unconventional segmentations in their narratives, whether in the form of hyposegmentation or hypersegmentation, produced relatively more spelling errors related to the string of letters and illegal letter representations. The latter, related to substitutions of voiced and unvoiced consonants representations, as in the spelling of *cato* by *gato* (cat). In turn, spelling errors with lesser occurrences of unconventional segmentations in writing were, for the most part, phonologically acceptable. In this sense, the occurrence of hyposegmentations and hypersegmentations in children's texts is related to the presence of spelling errors that express difficulties in phonological analysis on the part of children.

2.4 Cognitive Skills for Learning to Spell in Brazilian Portuguese

Understanding spelling learning as a knowledge construction process involves understanding both the nature of the object of knowledge and the knowing subject. In this sense, it is important to examine, from the point of view of the knowing subject, how children's writing reveals the cognitive processes related to the development of spelling.

In order to match speech, which is continuous, to letters, which are discrete units, it is necessary to segment speech into discrete units so that this correspondence can be carried out. The ability that enables this segmentation to be performed is phonological awareness, that is, the ability to operate on the phonological constituents of speech. Spellings that can be predicted by employing the analysis of sublexical units that involve meaning and grammatical information will require the learner to employ their morphological processing skills. Knowledge about the sequences of letters allowed by the writing system, as well as the memorization of spellings of irregular words, is part of the set of skills and knowledge for progress in spelling.

In Brazilian Portuguese, Correa and Dockrell (2010) analyzed the relationship between the occurrence of spelling errors most frequently found in children's writing (phonologically acceptable errors, illegal letter representations, letter omission, and morpheme omission) and verbal and nonverbal skills, working memory, vocabulary, morphological awareness, and reading. Phonologically acceptable errors

were positively correlated with all assessed skills, with the exception of nonverbal skills. Except for the nonverbal skill, illegal letter representation showed a negative and statistically significant correlation with all other linguistic-cognitive skills. There were no statistically significant correlations between letter omissions and any of the skills assessed. However, a negative trend was found between letter omissions and reading. There was a statistically significant positive correlation between morpheme omission and the morphological awareness task. It was also observed a positive trend between morpheme omission errors and working memory.

Acceptable phonological errors indicate the importance of phonological processing in the construction of an orthographic lexicon by Brazilian children. Illegal representation of letters and the omission of letters suggested that children were struggling with phonological analysis and phoneme-grapheme correspondence. However, illegal letter was also related to broader difficulties children have with other cognitive and linguistic abilities, such as verbal ability, reading, working memory, and morphological awareness.

According to Correa and Dockrell (2007), no significant differences were detected in nonverbal skills or working memory resources according to the greater or lesser occurrence of nonconventional segmentations in stories produced by children. The higher frequency of hyposegmentation in the written text of Brazilian children would be related to lower performances in verbal skills, vocabulary, and reading accuracy. In turn, a higher occurrence of hypersegmentation was related to poor reading accuracy. In this sense, occurrences of hyposegmentation in writing seem to reflect more general linguistic difficulties than the occurrence of hypersegmentation. The occurrence of hyposegmentation would be related to the child's linguistic conceptions, based on oral language and the learning of writing conventions. In turn, hypersegmentation appears to be of a later occurrence when compared to hyposegmentation. Hypersegmentation is more specifically related to learning to read and write and to the hypotheses the child builds about the concept of word based on the formal instruction they receive.

Not all words have meanings that can be taken as a unit of meaning independent of the linguistic universe. Prepositions, articles, and conjunctions, for example, are eminently related to the context of the language itself, modifying the meaning of other words to establish grammatical relationships between the words in the sentence and between the sentences themselves (Monteiro, 2002; Rosa, 2006). The meaning of such words is therefore grammatical in nature. These are the so-called function words (Bisol, 2004) or grammatical words (Monteiro, 2002; Rosa, 2006). The hypothesis about a minimum number of letters for writing a word is contradicted by the fact that there are words written with only one or two letters, such as articles, which have no lexical meaning but only grammatical meaning. According to Correa et al. (2014), Brazilian children start to hypersegment words in which they highlight syllables corresponding to such words (*a gora* instead of *agora* – right now).

The child's verbal skills, in particular their level of vocabulary, significantly contribute to the understanding of the limits of the word in writing. This is because vocabulary knowledge is correlated with a better phonological representation of the word,

as argued by Dockrell and Messer (2004). According to them, vocabulary also influences the child's spelling development via morphology and semantics, which would also help to explain the correlation obtained between the lower frequency of unconventional segmentation in writing and morphological awareness, that is, the ability to deal with the morphological constituents of words, thus allowing to identify, understand, and mentally operate with morphemes (Nunes et al., 1997). Younger children find it easier to properly delimit nouns, verbs, and adjectives in writing (Ferreiro & Pontecorvo, 1996; Tolchinsky & Cintas, 2001). Such word classes represent ideas (Monteiro, 2002) or objects of thought (Tamba-Mecz, 2006). Such words are called lexical words (Bisol, 2004) or content words (Rosa, 2006). In these cases, children could use their semantic knowledge and sensitivity to grammar, particularly differences between word classes, to decide the boundary between words in writing.

Finally, the correlation between reading accuracy and the lower frequency of unconventional segmentation in writing indicates that the ability to establish limits between words in Brazilian Portuguese would be related to: (a) greater ability in phonological analysis and (b) the knowledge the child has of graphophonemic correspondences. This hypothesis gains strength with reference to correlations between the frequency of unconventional segmentation and orthographic knowledge presented in the previous section.

2.5 Final Remarks

To understand the learning process, it is important to look inside the relationship established between subject and object of knowledge. Thus, it becomes relevant to discuss what is learned and what makes learning possible. Regarding the object of knowledge, in this case spelling, it is important to consider the nature of regularities from which the spellings of words can be predicted, the relative difficulty between different regularities, as well as which regularities are learned before the others. From the perspective of the subject, it is necessary to describe the linguistic-cognitive skills contributing to the mastery of spelling conventions, explaining how and when they influence the development of writing.

In the case of Brazilian Portuguese, a set of characteristics at the phonological level of language organization makes phonological processing a fundamental skill for learning spelling. Such findings reiterate the relative transparency of Brazilian Portuguese, bringing it closer to transparent Latin spelling, such as Spanish, for example. Given the morphological complexity of Brazilian Portuguese, how can one explain that morphological processing does not contribute to the same extent as phonological processing to the orthographic knowledge of Brazilian children since the early years of schooling? The answer to this question needs to go beyond the existence of a relative regularity of phonographic correspondences. It must be considered that Brazilian Portuguese shows, in prosodic terms, a relatively high degree of syllable-timing (Barbosa, 2000; Bisol, 2000). This makes the syllable a sublexical unit of great importance for the phonological analysis of the word in writing (Correa et al., 2007).

The prominence given to the syllable in Brazilian Portuguese tends to impair the salience of the morphic constituents of the words. The spelling of some affixes corresponds to a single syllable. Others would have their identity diluted, being part of two different syllables. Thus, the relative regularity of phonographic correspondences, the predominance of simpler syllabic patterns, such as the prominence of the syllable as a sublexical unit of references, favor the development of phonological processing, contributing to delay the process of morphic analysis of words as a strategy to be used in writing of Brazilian children. In short, compared to the development of phonological awareness, the contribution of morphology for the mastery of spelling in Brazilian Portuguese would be more specific (Correa, 2022; Soares, 2016), as well as its explicit use in writing would be later, as revealed by the analysis of spellings of Brazilian children's spellings, whether through dictations or through writing texts.

Finally, the set of investigations on the development of spelling skills in Brazilian children have interesting implications regarding the understanding of the development of spelling skills. The first is that the contribution of morphology to learn to spell in Brazilian Portuguese, compared to that of phonological awareness, is more specific. Also, the explicit use of morphological information occurs later in children's development of spelling skills. In addition to contributions of phonology, orthography, and morphology as described by the Triple Word Form Theory of spelling development (Bahr et al., 2012), in Brazilian Portuguese, prosodic aspects, such as rhythm and the contribution of semantics-syntax, should be highlighted. In this way, the interaction of lexical and sublexical units of analysis is encompassed to understand how Brazilian children develop their basic writing skills.

Language is both an object of knowledge and an object of thought, and as such it must be learned as well as taught. In this sense, the study of language is fundamental so that language can also be used for the study. Investigations about the acquisition of spelling knowledge bring relevant educational implications to be considered for the creation of learning contexts for the study of writing in the early school years. In the specific case of Brazilian Portuguese as a teaching object, it is important to consider children's linguistic intuition about the syllable-spelling pattern of words and the prominence of the syllable as a sublexical unit of analysis. Phonological processing is of fundamental importance for success in learning to spell in Brazilian Portuguese. Errors that impair the learning of writing are those reflecting the difficulty in performing the phonological analysis on the part of the child. Finally, it is essential to understand that writing leaves marks on children, in the form of stories of success or failure to learn. We expect that, from the children's point of view, learning contexts allow the writing of stories in which learners can live their trajectories as knowing subjects happily ever after.

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References

Angelelli, P., Marinelli, C. V., & Burani, C. (2014). The effect of morphology on spelling and reading accuracy: A study on Italian children. *Frontiers in Psychology, 5*(NOV), 1–10. https://doi.org/10.3389/fpsyg.2014.01373

Ashby, J., & Rayner, K. (2012). Reading in alphabetic writing systems: Evidence from cognitive neuroscience. In S. D. Sala & M. Anderson (Eds.), *Neuroscience in education: The good, the bad, and the ugly* (pp. 61–83). Oxford University Press.

Bahr, R. H., Sillian, E. R., Berninger, V. W., & Dow, M. (2012). Linguistic pattern analysis of misspellings of typically developing writers in grades 1-9. *Journal of Speech, Language, and Hearing Research, 55*(6), 1587–1599. https://doi.org/10.1044/1092-4388(2012/10-0335)

Barbosa, P. A. (2000). "Tempo-silábico em Português do Brasil": uma crítica a Roy Major. ["Syllable-timing in Brazilian Portuguese": a critic to Roy Major]. *DELTA: Documentação de Estudos em Linguística Teórica e Aplicada, 16*(2), 369–402. https://doi.org/10.1590/S0102-44502000000200006

Berninger, V. W., Vaughan, K., Abbott, R. D., Begay, K., Coleman, K. B., Curtin, G., Hawkins, J. M., & Graham, S. (2002). Teaching spelling and composition alone and together: Implications for the simple view of writing. *Journal of Educational Psychology, 94*(2), 291–304. https://doi.org/10.1037/0022-0663.94.2.291

Bisol, L. (2000). O troqueu silábico no sistema fonológico (um adendo ao artigo de Plínio Barbosa). [The syllabic trochee in the phonological system (an addendum to Plínio Barbosa's article)]. *DELTA: Documentação de Estudos em Linguística Teórica e Aplicada, 16*(2), 403–413. https://doi.org/10.1590/S0102-44502000000200007

Bisol, L. (2004). A palavra prosódica e a morfológica e suas repercussões no ensino. [The prosodic and morphological word and their repercussions on teaching]. In *Anais da 56ª. Reunião Anual da SBPC. [Proceedings of the 56th SBPC annual meeting] 2004, 18–23 July*. Universidade Federal de Mato Grosso.

Breadmore, H. L., & Deacon, S. H. (2019). Morphological processing before and during children's spelling. *Scientific Studies of Reading, 23*(2), 178–191. https://doi.org/10.1080/10888438.2018.1499745

Bruck, M., Treiman, R., Caravolas, M., Genesee, F., & Cassar, M. (1998). Spelling skills of children in whole language and phonics classrooms. *Applied PsychoLinguistics, 19*(4), 669–684. https://doi.org/10.1017/S0142716400010419

Cardoso, S. B., Leandro, D. S., & Vidigal de Paula, F. (2008). Conhecimento morfológico derivacional e suas relações com o desempenho na escrita de palavras. [Knowledge of derivational morphology and its relations to word writing performance]. *Psicólogo InFormação, 12*(12), 107–129. https://doi.org/10.15603/2176-0969/pi.v12n12p107-129

Cordewener, K. A. H., Verhoeven, L., & Bosman, A. M. T. (2016). Improving spelling performance and spelling consciousness. *The Journal of Experimental Education, 84*(1), 48–74. https://doi.org/10.1080/00220973.2014.963213

Cordewener, K. A. H., Hasselman, F., Verhoeven, L., & Bosman, A. M. T. (2018). The role of instruction for spelling performance and spelling consciousness. *Journal of Experimental Education, 86*(2), 135–153. https://doi.org/10.1080/00220973.2017.1315711

Correa, J. (2022). A contribuição da morfologia Para o domínio da escrita ortográfica por crianças [The contribution of morphology to the mastery of orthographic writing by children]. In M. M. P. E. Mota (Ed.), *Consciência morfológica, leitura e escrita [Morphological awareness, reading and writing]* (pp. 37–55). Appris.

Correa, J., & Dockrell, J. E. (2007). Unconventional word segmentation in Brazilian children's early text production. *Reading and Writing, 20*(8), 815–831. https://doi.org/10.1007/s11145-006-9049-3

Correa, J., & Dockrell, J. (2010). Learning to spell in Brazilian Portuguese: children's patterns of errors in story writing. In *SIGWriting2010: Program & abstracts, 2010 8–10 Sept* (p. 67). University of Education.

Correa, J., & MacLean, M. (1999). Aprendendo a ler e a escrever: A narrativa das crianças sobre a alfabetização. [learning to read and write: children's oral stories about literacy]. *Psicologia: Reflexão e Crítica, 12*(2), 273–286. https://doi.org/10.1590/s0102-79721999000200003

Correa, J., Maclean, M., Meireles, E., Lopes, T., & Glockling, D. (2007). Using spelling skills in Brazilian Portuguese and English. *Journal of Portuguese Linguistics, 6*, 61–82.

Correa, J., Dockrell, J., & Zyngier, S. (2014). A ocorrência de hipersegmentações na escrita e o desenvolvimento do conceito de palavra morfológica. [The occurrence of hypersegmentations in writing and the development of the concept of morphological word]. In A. Roazzi, F. V. de Paula, & M. J. Santos (Eds.), *Leitura e Escrita: A sua aprendizagem na teoria e na prática. [Reading and writing: Learning in theory and practice]* (pp. 41–54). Juruá.

Correa, J. (2015). Qui veut apprendre, ne sait pas » et, avec cela, donne le premier rôle à sa propre histoire. L? apprentissage du langage écrit et ses difficultés dans les ateliers de lecture et d?écriture. [He Who Wants to Learn, Does Not Know a Damned Thing ," and Thus Becomes the Protagonist of his own Story: Written Language Learning and its Difficulties as Experienced by Children in Reading and Writing Workshops]. *Bulletin de Psychologie, 68*, 153–162.

Correa, J., Lugarinho, J., & Colucci, N. (2016). O conhecimento morfológico da criança na escrita do Português Brasileiro. [Children's knowledge of written morphology in Brazilian Portuguese]. *Psicologia: Teoria e Pesquisa, 32*(4), 1–7. https://doi.org/10.1590/0102.3772e32428

Deacon, S. H. (2008). The metric matters: Determining the extent of children's knowledge of morphological spelling regularities. *Developmental Science, 11*(3), 396–406. https://doi.org/10.1111/j.1467-7687.2008.00684.x

Defior, S., Alegría, J., Titos, R., & Martos, F. (2008). Using morphology when spelling in a shallow orthographic system: The case of Spanish. *Cognitive Development, 23*(1), 204–215. https://doi.org/10.1016/j.cogdev.2007.01.003

Dockrell, J. E., & Messer, D. (2004). Lexical acquisition in the early school years. In R. A. Berman (Ed.), *Language development across childhood and adolescence* (pp. 35–52). John Benjamins.

Fernandes, S., Ventura, P., Querido, L., & Morais, J. (2008). Reading and spelling acquisition in European Portuguese: A preliminary study. *Reading and Writing, 21*(8), 805–821. https://doi.org/10.1007/s11145-007-9093-7

Ferreiro, E., & Pontecorvo, C. (1996). Os limites entre as palavras. [Word boundaries]. In E. Ferreiro, C. Pontecorvo, N. R. Moreira, & I. G. Hidalgo (Eds.), *Chapeuzinho vermelho aprende a escrever. [Little red riding hood learns to write]* (pp. 38–66). Ática.

Ford, K., Invernizzi, M., & Huang, F. (2018). The effect of orthographic complexity on Spanish spelling in grades 1-3. *Reading and Writing, 31*(5), 1063–1081. https://doi.org/10.1007/s11145-018-9828-7

Gomes, F. C. S., Correa, J., & Mousinho, R. (2018). *Par educativo: O desenho e o vínculo com a aprendizagem.[Educational pair: Drawing and the relationship to learning]*. Booktoy.

Graham, S. (2000). Should the natural learning approach replace spelling instruction? *Journal of Educational Psychology, 92*, 235–247. https://doi.org/10.1037//0022-0663.92.2.235

Graham, S., & Harris, K. R. (2000). The role of self-regulation and transcription skills in writing and writing development. *Educational Psychologist, 35*(1), 3–12. https://doi.org/10.1207/S15326985EP3501_2

Graham, S., & Santangelo, T. (2014). Does spelling instruction make students better spellers, readers, and writers? A meta-analytic review. *Reading and Writing, 27*(9), 1703–1743. https://doi.org/10.1007/s11145-014-9517-0

Gregg, N., & Mather, N. (2002). School is fun at recess: Informal analyses of written language for students with learning disabilities. *Journal of Learning Disabilities, 35*(1), 7–22. https://doi.org/10.1177/002221940203500102

Guimarães, S. B., & Mota, M. M. P. E. (2018). Consciência morfológica e ortografia. Uma relação para além da consciência fonológica?. [Morphological awareness and spelling. A relationship beyond phonological awareness?]. *Estudos e Pesquisas em Psicologia, 18*, 608–623. Retrieved from http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1808-42812018000200013&nrm=iso

Guimarães, S. R. K., Vidigal de Paula, V., Mota, M. M. P. E., & Barbosa, V. R. (2014). Consciência morfológica: que papel exerce no desempenho ortográfico e na compreensão de leitura?. [Morphological awareness: What is its role in orthographic performance in orthography and reading comprehension?]. *Psicologia USP, 25*(2). https://doi.org/10.1590/0103-6564A20133713

Koch, I. V., & Elias, V. M. (2009). *Ler e escrever. Estratégias de produção textual. [Reading and writing. Text production strategies]*. Editora Contexto.

Levesque, K. C., Breadmore, H. L., & Deacon, S. H. (2021). How morphology impacts reading and spelling: Advancing the role of morphology in models of literacy development. *Journal of Research in Reading, 44*(1), 10–26. https://doi.org/10.1111/1467-9817.12313

Limpo, T., Vigário, V., Rocha, R., & Graham, S. (2020). Promoting transcription in third-grade classrooms: Effects on handwriting and spelling skills, composing, and motivation. *Contemporary Educational Psychology, 61*, 101856. https://doi.org/10.1016/j.cedpsych.2020.101856

Limpo, T., Salas, N., Van Reybroeck, M., & Castro, S. L. (2021). Editorial: Spelling across orthographies. *Frontiers in Psychology*. Frontiers Media S.A. https://doi.org/10.3389/fpsyg.2021.700604

Meireles, E. S., & Correa, J. (2005). Regras contextuais e morfossintáticas na aquisição da ortografia da língua portuguesa por criança. [Contextual and morphosyntactic rules in children's acquisition of Portuguese orthography]. *Psicologia: Teoria e Pesquisa, 21*(1), 77–84. https://doi.org/10.1590/S0102-37722005000100011

Meireles, E. & Correa, J. (2006). A relação da tarefa de erro intencional com o desempenho ortográfico da criança considerados os aspectos morfossintáticos e contextuais da língua portuguesa. [The relationship between the intentional misspelling task and children's spelling skills considering the morphosyntactic and contextual rules in Brazilian Portuguese]. *Estudos de Psicologia (UFRN), 11,* p. 35–43.

Monteiro, J. L. (2002). *Morfologia portuguesa*. [Portuguese morphology]. Pontes Editores.

Morais, A. G. (2005). O diagnóstico como instrumento para o planejamento do ensino de ortografia. [Assessment as an instrument for planning spelling teaching]. In A. da Silva., A. G. de Morais & K. L. R. de Melo (Eds.). O*rtografia na sala de aula* [Spelling in the classroom] (pp. 45–60). Autêntica.

Morais, A. G. (1998). *Ortografia: ensinar e aprender*. [Spelling: teach and learn]. Ática.

Mota, M. M. P. E. (2012). Explorando a relação entre consciência morfológica, processamento cognitivo e escrita. [Exploring the relationship between morphological awareness, cognitive processing and spelling]. *Estudos de Psicologia (Campinas), 29*(1), 89–94. https://doi.org/10.1590/S0103-166X2012000100010

McCutchen, D. (2000). Knowledge, processing, and working memory: Implications for a theory of writing. *Educational Psychologist, 35*(1), 13–23. https://doi.org/10.1207/S15326985EP3501_3

McCutchen, D., & Stull, S. (2015). Morphological awareness and children's writing: Accuracy, error, and invention. *Reading and Writing, 28*(2), 271–289. https://doi.org/10.1007/s11145-014-9524-1

Mussar, R., Sénéchal, M., & Rey, V. (2020). The development of morphological knowledge and spelling in French. *Frontiers in Psychology, 11*. https://doi.org/10.3389/fpsyg.2020.00146

Notarnicola, A., Angelelli, P., Judica, A., & Zoccolotti, P. (2012). Development of spelling skills in a shallow orthography: The case of Italian language. *Reading and Writing, 25*(5), 1171–1194. https://doi.org/10.1007/s11145-011-9312-0

Nunes, T., Bryant, P., & Bindman, M. (1997). Morphological spelling strategies: Developmental stages and processes. *Developmental Psychology, 33*(4), 637–649. https://doi.org/10.1037/0012-1649.33.4.637

Pontecorvo, C. (1997). Studying writing and writing acquisition today: A multidisciplinary view. In C. Pontecorvo (Ed.), *Writing development: An interdisciplinary view* (p. xv–xxxi). John Benjamins.

Rosa, M. C. (2006). *Introdução à morfologia*. [Introduction to morphology]. Contexto.

Seymour, P. H., Aro, M., Erskine, J. M., & in collaboration with COST Action A8 network. (2003). Foundation literacy acquisition in European orthographies. *British Journal of Psychology, 94*(2), 43–174. https://doi.org/10.1348/000712603321661859

Soares, M. (2016). *Alfabetização: a questão dos métodos*. [Literacy: the question of methods]. Contexto.

Tamba-Mecz, I. (2006). *A semântica*. [The semantics]. Parábola Editoral.

Tolchinsky, L., & Cintas, C. (2001). The development of graphic words in written Spanish: What can be learnt from counterexamples? In L. Tolchinsky (Ed.), *Developmental aspects in learning to write* (pp. 77–95). Kluwer Academic.

Treiman, R. (2018). Teaching and learning spelling. *Child Development Perspectives, 12*(4), 235–239. https://doi.org/10.1111/cdep.12292

Vergnaud, G. (1985). Concepts et schèmes dans une théorie opératoire de la representation. [Concepts and schemas in an operational theory of representation]. *Psychologie Française, 30*(3), 245–252.

Zhang, L., & Treiman, R. (2020). Spelling. In *The encyclopedia of child and adolescent development* (pp. 1–11). Wiley. https://doi.org/10.1002/9781119171492.wecad120

Chapter 3
Grammar as a Resource for Developing Metalinguistic Understanding About Writing

Debra Myhill

3.1 Introduction

In the digital world of mass communication, writing is everywhere – not just in traditional print forms but also in blogs, websites, text messaging, emails and other social media. As educators, we are preparing children and young people for a world where they are likely to write much more frequently than their grandparents. Through writing, we can communicate our own most private thoughts, articulate our deepest fears, express our most creative imaginings and understand ourselves and our world. And writing, of course, is fundamental to educational success. We cannot underestimate the importance of empowering the children we teach to become engaged and effective writers. This chapter will consider how grammar can be a powerful resource to support and empower students in understanding the nature of writing and being a writer, through developing their metalinguistic understanding of how grammatical choices shape meaning in writing. This draws on Halliday's seminal work on a functional approach to language to inform both our theoretical framing and the operationalisation of our pedagogical approach. In presenting data from classrooms, and through adopting a critical analysis of our data, we will also show how teachers can empower or constrain students' agency as writers.

Halliday's (1978, 2004) theorisation of grammar as social semiotic positions writers as creators of texts who can enact an infinite repertoire of choices to shape meaning. Potentially, this gives writers' authorial ownership through being able to take control of their writerly decision-making. This stands in contrast to traditional prescriptive conceptualisations of grammar, which position grammar as the arbiter of accuracy and which all too often foster normative hegemonic discourses of

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compliance in the writing classroom. Positioning grammar as solely concerned with grammatical accuracy in writing is an impoverished view of grammar, which misses the opportunities and possibilities that grammatical knowledge can offer the writer. In contrast, Halliday's emphasis on understanding how grammar is a resource for making meaning offers the possibility of thinking about classroom pedagogies, in which writers are accorded greater agency through understanding the choices available to them as writers, and thus being enabled to make increasingly autonomous choices.

However, classrooms are sites of complex cultural and social reproduction, and school writing is shaped as much by curriculum imperatives as by pedagogies promoting autonomy. Concerns about the standards achieved in writing in school have been expressed across national jurisdictions (Graham & Rijlaarsdam, 2016). Such concerns may exert highly normative pressures on writing classrooms, which run counter to notions of writing as empowerment. In the study's context of the National Curriculum in England and Wales, a high-stakes testing regime and a climate of high accountability tend towards a view of writing heavily oriented to test demands. The curriculum now also mandates for the explicit teaching of grammar (DfE, 2013, 2014), including specified terminology for each year group, which is assured through a national test of grammar for all 11-year-olds. As a consequence, how empowerment literacy in writing manifests itself in the writing classroom may be realised in very different ways. In the light of this, this chapter will investigate what metalinguistic understanding young writers reveal through their talk about their own grammatical choices. Through this, it will explore what students' metalinguistic talk about writing reveals about the ways in which they exercise, or not, their power to choose in writing. The paper argues that students' capacity to exercise agency and choice in writing is enabled or constrained by curriculum requirements and by teachers' pedagogical practices in facilitating metalinguistic understanding.

3.2 Theoretical Framework

Our research has focused on how a functionally oriented pedagogy of writing can foster metalinguistic understanding and through this empowerment through choice (e.g. Myhill et al., 2012; Jones et al., 2013; Myhill, 2018, 2021). Theoretically, then, we position 'grammar as choice' as an enabling approach for developing metalinguistic understanding of writing. Such metalinguistic understanding potentially develops young writers' capacity to make increasingly independent choices in writing and to exercise their power to choose. In the light of this, we explore in more detail below these two key theoretical perspectives informing this research.

3.2.1 Grammar as Choice

Janks (2009) has argued for a pedagogy which 'helps us to think about how we are positioning ourselves and our readers by the choices we make as we write and to consider how the words we use to name the world may privilege some at the expense of others', and she draws attention to the importance of 'the social and rhetorical sophistication needed to write for a range of audiences and purposes' (Janks, 2009, p.128). This social and rhetorical sophistication requires writers who can understand and play with the multiple ways in which linguistic choices create meaning in a written text. It is this which has been the focus of our own research, exploring through a cumulative series of empirical studies (see, e.g. Myhill et al., 2012, 2018; Myhill & Newman, 2016) how teachers can support young writers in understanding the power of grammatical choice.

Our theorisation of grammar as choice is strongly influenced by systemic functional linguistics (SFL) and Halliday's seminal reframing of grammar as social semiotic, a key resource for meaning-making (Halliday, 2004; Halliday & Mathiessen, 2004). In contrast to grammars which attend to the analysis and naming of how the language system is structured, Halliday's functional approach positions 'grammar as a meaning-making resource' and suggests that we should 'describe grammatical categories by reference to what they mean – an insightful mode of entry to the study of discourse' (Halliday & Mathiessen, 2004, p.10). It is an environmentalist approach (Exley et al., 2016), which attends to language in use rather than the rules of the system. Janks draws on Halliday's three metafunctions (Halliday, 1985) to outline the importance of language choices at an ideational, interpersonal and textual level:

> We need to understand the possible power effects of our choices. We need to understand how our ideational choices construct participants, processes, and circumstances from a particular perspective; we need to attend to our choices of mood and modality, which encode relations of authority and agency between writers and readers; we need to think about how textual choices work to foreground and background ideas, to construct cause and effect, to position information as old or new. (Janks, 2009, p.130).

Carter and McCarthy (2006, p.7) usefully distinguish between grammar as structure, which considers language as a system, and the grammar of choice, which addresses the ways in which different grammatical choices differently construct meaning. So, a choice as simple as deciding whether a sentence begins with a subject or uses a subject-verb inversion can alter what information is foregrounded. At its most powerful, grammatical choice is fundamentally critical, with awareness not only of whose perspectives are privileged but also how this is achieved: as Unsworth argues, we can 'make explicit how choices of visual and verbal resources privilege certain view points and how other choices of visual and verbal resources could construct alternative views' (Unsworth 2001, p.15). Crucially, in positioning grammar as meaning-making resource, SFL moves beyond pedagogical grammar with its tendency to focus on the identification of word classes and clauses to seeing grammar as operating at word, phrase, sentence and text level. Indeed, Halliday and

Mathiessen argue that ‘our traditional compositional thinking about language needs to be, if not replaced by, at least complemented by a “systems” thinking whereby we seek to understand the nature and the dynamic of a semiotic system as a whole’ (2004, p.20). Our theoretical approach here links with growing international interest in functionally oriented approaches to grammar to support, for example: academic writing in English Language arts (Moore & Schleppegrell, 2014), multimodal literacies (Unsworth, 2006), early years English language learners (Humphrey & Hao, 2019) and older English language learners (Gebhard et al., 2014) and secondary school English/language arts learners (Macken-Horarik et al., 2017).

However, in conceptualising grammar as choice, we also draw on the rhetorical tradition and, in particular, advocates of rhetorical grammar, who give particular significance to the power of choice. Micciche (2004, p.717) maintains that teaching grammar rhetorically is intrinsically linked to the ‘larger goals of emancipatory teaching’, and this aligns with the longstanding work of Kolln (Kolln & Gray, 2016, Introduction) in promoting a pedagogical rhetorical grammar which ‘encourages writers to recognize and use the grammatical and stylistic choices available to them and to understand the rhetorical effects those choices can have on their readers’. Like SFL, rhetorical grammar makes connections between a grammatical construction and its effect in a text, thus always linking grammar and meaning. From a pedagogical perspective, Lefstein explains that rhetorical grammar views grammatical structures ‘as resources to be exploited’ and argues that ‘the point of grammar study is to enable pupils to make choices from among a range of linguistic resources, and to be aware of the effects of different choices on the rhetorical power of their writing’ (Lefstein, 2009, p.382).

3.2.2 Metalinguistic Understanding

Developing awareness of the potency of grammatical choices must involve ‘meta’-understanding of some kind, an ability to stand outside the written text and discern how it is creating meaning. This meta-understanding has been variously described. The study of grammar is characterised by the use of *grammatical metalanguage*, the disciplinary-specific terminology used to name the different elements in the linguistic system. Of itself, grammatical metalanguage represents a form of meta-understanding, a way to talk about and reflect upon language. The teaching and use of grammatical metalanguage has been at the core of the long and unresolved debate about the role of grammar in the curriculum (Hudson, 2004; Locke, 2009; Myhill & Watson, 2014), but those who adopt a functionally oriented stance often see value in this metalanguage: ‘Providing pupils with the terminology to talk about language enables them to discover the relation between various language structures and their literal and symbolic meanings, not only in their reading but also in their own writing’ (Clark, 2010, p.197). However, we have been less concerned with student use of the metalanguage itself and more concerned with developing students’ ‘writerly’ thinking about the language choices they make.

There is already substantial evidence of the importance of 'thinking about thinking', or *metacognition* in writing (Bereiter & Scardamalia, 1982; Kellogg, 1994; Olin-Scheller & Tengberg, 2017). Metacognition is an overarching cognitive process, which refers to the way in which we can have active control over our thinking processes. Flavell described metacognition as 'one's knowledge concerning one's own cognitive processes' (Flavell, 1976, p.232) and argued that metacognition was composed of two sub-processes – knowledge of cognition and regulatory control of cognition. *Metalinguistic understanding* is commonly seen as a subset of 'the general heading "metacognition"' (Gombert, 1992, p.5). Just as there are two sub-processes in metacognition, Gombert argues that metalinguistic understanding comprises both the knowledge about language and the use of that knowledge in production or analysis of language. In other words, metalinguistic understanding is not only simply knowledge of grammatical metalanguage but also the capacity to use that knowledge.

However, despite Gombert's seminal work in this area, the concept of metalinguistic understanding is variously described in the research literature (see Myhill & Jones, 2015 for a detailed analysis), leading to some conceptual confusion. Drawing on both cognitive and sociocultural disciplinary perspectives, we have defined metalinguistic understanding as being comprised of two complementary strands. Firstly, we see it as 'the explicit bringing into consciousness of an attention to language as an artifact', in other words, looking at language as a product which can be observed and analysed. Secondly, we see metalinguistic understanding as 'the conscious monitoring and manipulation of language to create desired meanings grounded in socially shared understandings' (Myhill, 2011, p.250). To exercise the power of choice, young writers need both these capacities: the capacity to recognise what is happening in a text and the capacity to use that understanding to shape their own texts to meet their rhetorical intentions.

In the classroom, a key way to foster this metalinguistic understanding is through dialogic talk. Research over a sustained period has emphasised the importance of *learning* talk, variously described as accountable talk (Resnick et al., 2015), collaborative talk (Rojas-Drummond et al., 2016), exploratory talk (Barnes, 2010; Mercer et al., 2019) and dialogic talk (O'Connor & Michaels, 2007; Alexander, 2018; Wegerif, 2013). Common to all of these is recognition of the critical relationship between talk and thinking and how this can be heightened through collaboration. In dialogic talk, students 'pool ideas, opinions and information, and think aloud together to create new meanings, knowledge and understanding' (Mercer et al., 2019, p.188).

Our own research (Myhill et al., 2016; Myhill & Newman, 2019; Chen & Myhill, 2016) has flagged the significance of this kind of learning talk in fostering understanding of grammatical choices and, particularly, the class teacher's orchestration of dialogic talk, which opens up dialogic discussion of the possibilities of language choices, rather than closing them down through an overemphasis on right answers. At the same time, metalinguistic conversations about writing choices enables learners to verbalise their thinking and decision-making and make visible and open for

discussion or challenge the relationships they see between a grammatical choice and its effect on meaning in the text.

3.3 Methodology

This chapter draws on a data from a 4-year longitudinal study, funded by the Economic and Social Research Council, which traced the learning progress of four classes to investigate the relationship between metalinguistic knowledge and understanding and development in writing.

3.3.1 Sample

The research design was a cross-phase qualitative study, involving two primary and two secondary classes in four different schools, beginning in year 1 with 9-year-olds in primary ($n = 57$) and 12-year-olds in secondary ($n = 52$). The four schools were all nonselective schools in the Southwest of England, with attainment outcomes and levels of social disadvantage broadly aligned with the national average. However, the schools had lower than average numbers of students from different ethnic groups and low percentages of students with English as an additional language. A representative subsample of students was selected from each of these classes to create case study samples. Using teacher assessment against national standards for the primary cohort and externally assessed national data for the secondary sample, nine children in each class were chosen to create an initial sample of 36, which was balanced by gender and attainment. As the study was longitudinal, we anticipated attrition in the sample and were aiming for a final case study sample of data for six students in each class (24). The final data set of 29 students was less affected by attrition than we had expected.

3.3.2 Collaboration with Teachers

The study involved participatory collaboration with teachers, through professional development workshops, supporting their capacity to use a pedagogical framework, developed over successive studies, which placed the concept of grammar as choice at its core. The teachers were also involved in iteratively reflecting on their own practice and on the implications of the data analysis. The pedagogy (see Table 3.1), informed by our earlier studies, is framed around four pedagogical principles with the acronym, LEAD, as an aide memoire, and it sets out to develop students' metalinguistic understanding of grammar choices through explicit teaching, including dialogic discussion (Jones, 2020; Myhill, 2018).

Table 3.1 The pedagogical model

Links	Make a *link* between the grammar being introduced and how it works in the writing being taught	⇨	Metalinguistic understanding
Examples	Explain the grammar through showing *examples*, not lengthy explanations		
Authentic texts	Use *authentic* texts as models to link writers to the broader community of writers		
Discussion	Build in dialogic *discussion* about grammar and its effects		

Table 3.2 A summary of the data sources

	Primary			Secondary			
	Age 9	Age 10	Age 11	Age 12	Age 13	Age 14	Totals
Number of lesson observations	11	18	22	14	13	34	
Total number of lesson observations							112
Number of student interviews	33	30	28	36	31	29	
Total number of student interviews							187
Number of student writing samples	34	32	26	29	32	26	
Total number of writing samples							179
Number of writing tests	18	16	15	18	15	16	
Total number of writing tests							98

3.3.3 Data Collection and Data Sources

A substantial qualitative data set was collected for the study, including audio- and video-recorded lesson observations, writing conversation interviews, writing samples and a writing test conducted at the beginning, middle and end of the study. Table 3.2 summarises the full data set. Please note that at each data collection point, there were case study students who were absent or, as the study progressed, who had moved classes or schools; hence, the numbers are not multiples of nine. The number of lesson observations vary because the original two classes in primary and secondary split into multiple classes as they moved through school, and we followed the case study students.

Some findings from the parent study have already been reported elsewhere: how the students' writing drew on the authentic texts (Myhill et al., 2018); the relationship between metalinguistic understanding, student writing and teaching (Lines et al., 2019); how students articulate authorial intentions (Lines, 2020); and how the pedagogical approach fosters understanding of the reader-writer relationship (Myhill et al., 2020). This article draws principally on the 187 interviews with the case study students, with some contextual information about the teaching drawn from the lesson observation data. The interviews with students were framed as 'writing conversations' using a semi-structured interview schedule, which invited the students to reflect on and answer questions about their own writing or about a peer's writing. The interview schedule sought to elicit the nature of their

metalinguistic understanding, its relationship to the teaching they had received and how that understanding was transferred into active choices made in their own writing. Each writing conversation interview included questions directly related to the lesson observed and questions such as the following:

- What kind of text is this?
- What has your teacher taught you about the language features of this kind of text?
- What were you trying to make your reader feel/think when they read this text? How have you done this?
- Can you point to examples in your own text of what you have been taught?
- Can you say anything about the opening/ending of your text?
- Can you choose a sentence that works well – Why?
- Can you find examples of well-chosen vocabulary, phrases or images? Why does it work well?
- How could you improve this piece of writing?

One advantage of the 'writing conversation' method was that student responses were very focused on their own learning and authorial intentions, rather than the more generalised responses that less focused interview techniques can prompt. Thus, they gave a more reliable insight into the nature of their understanding of grammatical choice and of their decision-making processes. Each case study student was interviewed twice each academic year at the end of one of the teaching units observed for the study, and each interview lasted approximately half an hour.

3.3.4 Data Analysis

The writing conversation data were coded using thematic analysis which seeks to engage with the richness of qualitative data and 'both to reflect reality and to unpick or unravel the surface of reality' (Braun & Clarke, 2006, p. 9). In other words, we sought not simply to describe what students said but also to interpret it, particularly in the light of the evidence in their own writing pieces and in the lesson observations. The analysis process made use of NVivo and was an inductive, data-driven process of 'coding the data without trying to fit it into a pre-existing coding frame, or the researcher's analytic preconceptions' (Braun & Clarke, 2006, p.12). Three researchers were involved in the coding, which began with shared reading and coding of one interview, independent coding of another interview and a subsequent discussion of the initial codes which seemed to reflect the data. This process of independent coding, then shared discussion, was repeated iteratively with further codes being added as appropriate. This initial coding was open coding, but after approximately half the interviews had been coded, we moved to axial coding (Charmaz, 2006), clustering the open codes into larger themes. When coding was complete, a final thorough check was undertaken collectively by the three coders to assure that all data allocated to a given code was appropriate. The full coding resulted in a set of six thematic clusters: *Grammar-writing Relationship,*

Grammatical Reasoning, Pedagogical Practices, Metacognition; Metalinguistic Understanding, and *Handling the Reader-Writer Relationship*.

3.4 Findings

The findings reported here draw principally on the coding cluster, *Grammar-Writing Relationship*, reflecting students' comments and understandings about how grammatical choices and meaning communicated in writing interrelate. Within this theme were three sub-themes as outlined in Table 3.3.

Table 3.4 presents an overview of how many times each of these sub-themes was coded in the interviews. This is shown in terms of both the *number of interviews* (out of a total of 187 interviews) in which that sub-theme was code and the *number of occurrences* which were coded (so in some interviews, the sub-theme was coded more than once). This shows that students were more likely to talk about their lexical choices and what they needed to do to improve their writing, than they were to articulate the link between a grammatical choice and its meaning. However, there were two interview questions which directly invited them to think about their vocabulary and about what grammatical choices might improve their writing, whereas comments in which students articulated an understanding of the link between a grammatical choice and its effect in their writing arose through the interview conversation.

3.4.1 Improving Writing Through Grammatical Choices

The comments in this sub-theme reflect students' thinking about the kind of grammatical choices that might improve their writing – it is worth noting that the interview question directed them to consider what might improve the piece of writing

Table 3.3 Summary of definitions for theme and sub-themes

Theme	*Definition*
Grammar-Writing Relationship	Comments which make a connection between the use of a linguistic feature and its writing purpose or effect
Sub-themes	*Definition*
Improving Writing Through Grammatical Choices	Comments which reflect students' metalinguistic thinking about how to improve their writing
Lexical Choice as 'Better Words'	Comments related specifically to vocabulary choices made in the students' writing in terms of them being better or higher-level words.
Articulating the Grammar-Meaning Link	Comments which make a link between the use of a grammatical feature in their writing and its effect or impact on meaning

Table 3.4 Summary of the frequency of responses represented in each code

Sub-theme	Number of interviews	Number of occurrences
Improving Writing through grammatical choices	131	195
Lexical Choice as ‘Better Words’	107	189
Articulating the Grammar-Meaning Link	67	124

under discussion, but many of the responses moved away from that particular piece to more generic observations about how to improve their writing. As the numbers in Table 3.3 reflect, comments in this sub-theme were evident in a high number of interviews and were frequently occurring. Equally there were some students who could offer no response to the direct interview question. Because these young writers are learning in a high-stakes assessment context, it is perhaps not surprising that their comments on their grammatical choices show an acute awareness of being assessed and assessment requirements. Student responses to the question about how they might improve their writing largely related to curriculum targets and assessment. For some, writing choices are not framed by personal agency and ownership of choices but by the making of choices deemed likely to secure assessment reward. Comments such as ‘you need [sentence] variety to get full marks’ or ‘obviously to get a higher grade you need to use a variation’ were common. The setting of learning targets for writing is commonplace in England, either as targets to be aware of before writing or as targets given in assessment feedback on a completed piece. Because of the assessment framework, the majority of these targets related to grammatical points such as sentence variety, types of punctuation, and lexical choice. The writing conversations, however, revealed that although most students were highly aware of their targets, they frequently could not explain what the target meant in terms of improving their writing or even how to ‘use’ it: ‘I know what it is [the target] but I just don’t know how to put it into my writing’. One teacher had advised through assessment feedback that a student should ‘Add a complex sentence which uses “because” to start a subordinate clause’, but the student could not remember what a subordinate clause was. Nonetheless, some students did have clear understanding of their target insomuch as it was seen as a route to higher marks:

Interviewer: Your target is to vary your word choice. What do you understand by that?
Student: Yeah, because I used *speak* a lot and then she said I should use like *speak*; *talks*; *say;* and I think, *commentate*… after I’d done that that should be a level 5.

Student: Well, I talked to Miss about that and she said I didn’t use semi colons… So I will try to use a semi colon.
Interviewer: So why, why did she want you to use semi colons? What would they achieve?
Student: I’m not sure. I think, obviously, it’s a punctuation you don’t use too often. It’s not well known… So it would give you a higher level text.

One primary-aged writer explained that the teacher had 'told us to use like different ranges of punctuation like speech marks, exclamation marks, ellipsis' and when asked if he indeed used them in his writing, he lists his compliance, with a very telling repeated use of the verb 'done':
Student: I've done an exclamation mark; I've obviously done a full stop somewhere in here but I can't see it. I've done speech marks, I've done a comma, I've done – where is it – I've done a question mark, I've done ellipsis.

It is evident here how the targets promoted a 'deploying' tendency, with many students recounting what their writing should contain, as for example, the writer who said 'my personal targets are to add, like, semi-colons and stuff like that'. The nature of target-setting evidenced here does not develop students' learning about writing or about the power of a grammatical choice; it simply encourages compliance with a narrowly conceived writing assessment framework.

In one telling exchange, a secondary student discusses how the teacher made a change in his writing and then explains to the interviewer how he preferred his own version:

Interviewer: Now, what's interesting to me is that your teacher changed it, and arguably what you put before is just as good, so ..
Student: Yeah, I put comma '*but let me*' …and she said '*semi-colon, let me*'
Interviewer: … She's using the semi-colon instead of a 'but', right. Ok, do you think she's right or do you think it's better with a 'but'?
Student: Well...you know, for level 6, you need to use semi-colons and I used them in there, but you know it's better to put them where you can.
Interviewer: Right, that's an interesting one – for level 6 you need to use semi-colons but it isn't always the best thing to do?
Student: No, no, no, but for this, I don't know, I kind of liked it as '*but let me reiterate*' – I think I preferred it how it is but then…

Underlying both the direct teacher intervention above and the general emphasis on target-setting and 'telling' students what to 'put' in their writing is strong teacher control of the judgment of what good writing is and a parallel diminution of writer agency and control. At the same time, the strong steers regarding what should be in a good piece of writing focuses on the presence of certain features with many students gaining very little or no understanding of *why* these features are valued and, in the context of grammatical choices, very little understanding of the relationship between a choice and its effect in a text. Rather than offering empowerment through choice, this represents disempowerment through compliance. It is important, however, not to attribute blame to these teachers, who operate in a climate of high accountability and performativity and whose jobs are dependent on successful test results.

3.4.2 Lexical Choice as 'Better Words'

The sub-theme *Lexical Choice as 'Better Words'* captures occurrences of students' comments on their vocabulary choices, where their response connects a choice of a particular word to the idea that it is better than other words, but without any capacity to explain why. Table 3.4 illustrates that this was a significant focus of many writers at both primary and secondary phases. This mirrors the lessons observed in the study in which teachers were much more comfortable discussing word choice than they were discussing grammatical structures. However, these teacher-led discussions rarely explored why one particular word choice is better than any other and emphasised instead the idea that some words are *per se* better or 'nicer' than others. For example, in one observed lesson with 8–9-year-olds, a teacher was modelling describing a scene using her own writing and she says 'hummed – that's a nice word', with no further explanation. Later as she walks around the class, she asks one student 'Can you think of a better word than "said"?' again with no discussion about why it might not be a good choice. This is strongly reflected in the students' responses, many of whom have acquired a conceptual view that some words, as individual units regardless of context, have more value than others. One writer suggested he should change some of the words he had used for 'ones that sound better', but without offering any examples of alternatives. Another student said 'I would use a thesaurus to see what words I could use for "falling" because "falling" is pretty basic', whilst another writer felt 'tricky words' would improve the writing because 'I've used all easy sort of words, but if I had more time I could use words like "smothering" or "clumsy", "fumbling" like that and use better words'. In general, these writers tend to think that everyday words should be replaced by more unusual words to achieve a 'more high-standard vocabulary' or because 'it just makes it sound a bit smarter', but with no consideration of appropriacy, such as the connotations of a word or the images the word creates.

When students discussed possible improvements in specific word choices, the same tendency is evident in many of the responses: they do not seem confident in articulating why one choice is better than other, other than in the most generalised of terms. This is illustrated in the two exchanges below with two different students:

Interviewer: Is there anything now that you'd want to change and make it even better.
Student: *Sparkling* to *dazzling*
Interviewer: Why do you think *dazzling* is better than sparkling?
Student: Because *dazzling* is a powerful word.

Student: I'm pleased with my adjectives, strong words.
Interviewer: Tell me some of the adjectives that you have chosen that you like?
Student: I like *unbreakable*.

Interviewer: [Reads] '*The fire dragons were unbreakable'* – why do you like that word?
Student: I just like the *unbreakable* word, it's a good word.

The ideas of 'unbreakable' being a 'good word' is not explained or justified and as an adjective to describe a dragon feels like an odd descriptive choice. Another student notes that 'miserable' is a 'better word than sad' but when prompted to explain cannot do so. A similar issue manifests in a secondary-aged writer discussing the difference between his piece of writing written at the start of the study and the parallel piece at the end of the study. He argues that he prefers his 'Year 9 writing because the vocabulary I have used is more descriptive and a higher level, so say, for example, in my Year 7 one I said like "covered" but then in Year 9 I've said 'encrusted'. This evaluation refers to the opening sentence of his Year 9 (age 14) piece and to a sentence in the middle of the opening paragraph of his Year 7 (age 12) piece, both reproduced below:

Year 7: 'The trees were covered with green leaves'.
Year 9: 'The lichen encrusted statue stood, overlooking a pool of clear water in the public gardens opposite my house'.

His comment suggests that he sees 'covered' and 'encrusted' as exchangeable words, even though grammatically one is an adjective and the other a verb in the context he uses them, and that in one he is describing the trees and the other he is describing the statue. He is less interested in the broader context of his choice of vocabulary, than in the choice for its own sake – 'encrusted' is better than 'covered'. The interviewer tries to probe this and asks 'How would you describe the difference do you think?' to which the reply is 'Well, "encrusted" is of a higher level than "covered"', without further elaboration. However, the interview questioning seems to provoke a realisation that the two words are not simply isolated choices but linked to meaning, as he later observes that 'I guess it may not make sense if it was "the trees were encrusted with green leaves"'. One incidental observation from the writing conversation interviews was that the process of being asked to discuss their grammatical choices often prompted new metalinguistic thinking, as in this case.

These discussions about lexical choice show many of these young writers have acquired a metalinguistic perspective that lexical choice is principally about using more uncommon or unusual vocabulary, rather than being able to make meaningful connection between vocabulary choices and the meaning-making effects the choices may realise. Comments such as using 'better or higher-level vocabulary' were frequent, and follow-through questions inviting more explanation of the reasons for a choice were answered with a silence or 'I don't know' or sometimes with a literal definition of the meaning of the word. There is an absence of consideration of what a particular word connotes or suggests or perhaps how it conveys a visual or sensory image is not part of their thinking, and the learning spotlight seems to be shining on the word itself, rather than on how particular word choices facilitate authorial intention and the relationship with the reader.

3.4.3 Articulating the Grammar-Meaning Link

To reiterate, the sub-theme, *Articulating the Grammar-Meaning Link*, was not a response to a direct question in the writing conversation interviews, although interviewers did seek to create the space for this kind of response, for example, by following through on a students' answer with a 'Why?' to invite the elaboration. As Table 3.3 indicates, this sub-theme was evident in just over a third of interviews, although the occurrence of comments categorised in this theme was relatively high. These comments represent occasions when students demonstrated a higher level of discernment in grammatical choices and greater understanding of the grammar-meaning relationship. Here, there was much clearer evidence that students were developing independence and exercising choice. There were examples of this at all ages throughout the study, and although, in general, the more able writers at any given age were more likely to discuss grammatical choices with confidence, it was not the case that some students possessed this capacity whilst others did not. Many writers, including those represented in the sections above, demonstrated that sometimes they could articulate the reasons behind grammatical choices. There were no obvious patterns to describe in which cases students could explain the reasons for their choice: though, tentatively, we would suggest that this was connected to the clarity of the teacher's presentation of the grammar-writing link and the quality of the metalinguistic discussion in the lesson.

One area where this was regularly apparent was in explaining lexical choice. Here, in counterbalance to the tendency to see word choice as about choosing better words to replace everyday words, there were responses which demonstrated emerging and sophisticated understanding of the way word choices were shaping the communicative power of a text. Sometimes, students are not confident in verbalising exactly the effect of a particular choice, but their comments suggest they do understand the choice they have made. One 10-year-old says 'I didn't write "day until night" like I've made it even better and wrote "dawn until dusk"', and a 15-year-old, reflecting on a persuasive text which used emotive lexical choices, comments on her 'words that describe the suffering that people have gone through and things that you wouldn't think would happen have...like "unloved" and "abandoned". I've used "malnourished" but that doesn't quite have the same… "malnourished" kind of comes across like just hasn't been given the right food and stuff'. She seems to be highlighting the difference between her emotive vocabulary and the more scientific informational choice of 'malnourished'. One student singled out her choice of 'sniggered' as a lexical choice she was pleased with and explained that she liked 'what it means… how it sounds'. With greater surety in explaining the choice, one primary student makes the important connection between word choices and creating visual detail for the reader and expresses a clear authorial intention: 'I want the reader to picture it in their head, what's happening, so they understand it and they want to read more – "the golden sun shines on the misty rock" – it's got more description so then they can like get it the picture in their head so they know what it's like'. (Even here, though, there is rich potential for extending this writer's

understanding further – one might question whether 'misty' is a successful adjectival choice to describe a rock in the sun.) Similarly, a secondary-aged student explains how her word choices support her description of two different settings: 'On the island, it's nice and peaceful, but in London it's like "the growling traffic" and it's really noisy all the time so you've got that contrast'. Another student has used the word 'miasma' in one of her sentences – 'Both sweet smelling scents could never overthrow the miasma of decaying leaves' – and explains that it means 'a foul or unpleasant damaging smell'. She then says that it creates a sense of 'darkness and unhealthy' and continues the explanation of her choice referring to the word 'claustrophobia', which she uses to describe the forest because 'it nurtures a fear of claustrophobia even though it's a vast area'.

Elsewhere, students were able to discuss a range of other grammatical textual choices they had made. One 9-year-old girl in the first year of the study picks out an overelaborated noun phrase in a peer's writing ('a deadly thunderous, fearless, ferocious, fiery dragon') and says 'it's actually a bit too much detail'. Although she cannot verbalise precisely what the problem is, she has recognised the adjectival pile-up! Another 9-year-old talks about how her opening sentence to her narrative ('I was perching on my bedroom window listening to the sound of traders men haggling below') 'went straight into the character straight away'. Likewise, a secondary-aged writer explains how the choice of the first person affects what you can show as narrator (albeit a little awkwardly expressed): 'There is a point that can't describe what it looks like to look at the person doing it. So, you can't look at them and see what they're doing; you can only describe what they're doing, but not see what they're doing from another person's point of view'. In the context of writing a letter to the headteacher persuading him to support a charity, one student articulates how modality has been used to manage the relationship with the reader:

> You don't want to be too demanding and you want to be like tactful, but not come across too aggressive and demanding. So I tried to make him feel that like this has happened but you have the chance to do it you can change their story and you have that power making the reader feel kind of like special in a way that they can help and do good…I used "please" and instead of "must" I used "could" because they're more I think subtle.

Similarly, another student points out an example of where she has used a relative clause in her letter calling for better drugs education: 'Leah Betts, who was only 18, died from taking Ecstasy at her own party'. She comments: 'if I take that bit out it would still make sense but it's just adding more information and it's quite serious that she was only 18' and says the point of the relative clause is to 'recognise how serious it is when you can throw your life away when you're really young from like one pill'.

The comments in this sub-theme are testimony to some students' growing ability to understand the choices available to them and to make authorial choices in their own writing. Although the older and the higher attaining students were more likely to be represented in this theme, some of the youngest students, aged 9, were also represented, signalling that even younger students are capable of understanding the repertoire of choices and how they operate functionally within their own writing.

3.5 Discussion

This analysis of students' responses in the writing conversation interviews provides an insight into the nature of their metalinguistic understanding of writing and how a functionally oriented pedagogy is realised in practice. The data also reveal that learners frequently conceptualise improvement in writing in terms of 'deploying' particular grammatical features, improving word choices and responding to targets and teacher feedback. As we will discuss below, these rarely demonstrate agency in the authorial role or the exercising of choice but reflect strongly the steer of the teacher and the influence of high-stakes assessment. In contrast, there is a body of responses from students which shows a growing sense of agency and decision-making in which grammatical choices and meaning are more powerfully united.

3.5.1 The Impact of High-Stakes Assessment on the Power to Choose

A clear finding in this data is the way in which the assessment framework currently in place in England is restricting students' independence and opportunity to make informed choices in their writing. The normative influence of both the curriculum and assessment has led some writers to think of grammatical choices in highly restricted ways, which focus more on satisfying perceived assessment requirements than crafting and shaping meaning in line with their authorial intentions. There is strong evidence throughout this data of a close relationship between what teachers teach and what students learn, which is, of course, a positive outcome, except that if the teaching is heavily oriented to normative assessment criteria students are learning not about meaning-related choices but about what they need to do to be successful in the test. This was particularly true of the primary-aged writers whose writing is teacher-assessed but recorded nationally and used in schools' performance data. Here the national assessment guidance (Standards and Testing Agency [STA], 2016) specifies a set of criteria, which students must fulfil in order to meet the national benchmark (working at the expected standard). The guidance stipulated that learners 'must demonstrate attainment of *all* of the statements within that standard *and all* the statements in the preceding standard(s)' (STA, 2016, p.4), which has led to teachers adopting assessment practices focused very mechanistically on ensuring students had demonstrated all the stated criteria in their writing. This accounts for some of the student comments about putting in punctuation, passive voice or subordinate clauses. It also reflects classroom teaching which at times was over-scaffolded to ensure students did produce writing which evidenced the requisite features.

At the same time, the use of targets as formative feedback in response to student writing seems to have a similar effect of narrowing writing to fit an external assessment framework. Rather than offering genuinely formative feedback, or engaging

young writers in dialogue about their writing, the targets are driving towards to conformist writing practices, as the student responses demonstrate. Crucially, many of the student responses about their own targets also revealed that they had no real understanding of what the target meant in terms of their own writing or why it would make their writing any better. Students quickly learn what is valued in writing and are themselves very often keen to achieve high grades, and so they acquiesce, giving up their right to choose in favour of the desire to achieve good grades. In such a performative assessment culture, mastery is narrowly conceived as compliance with assessment criteria. To an extent in this context, for some writers, authorial intention is less about the rhetorical or communicative goals for a text and more about doing what the teacher requires in order to achieve a good mark.

3.5.2 Informed Choices

However, whilst the data indicates that high-stakes assessment may narrow writing and constrain writers' agency in exercising choice, there were other factors which may be restricting choice. The functionally oriented pedagogy advocated in the study stressed the importance of a functional approach to grammar, where a learning connection is always made between a grammar construction and how it creates meaning in a particular text. Making this link explicit is what Macken-Horarik (2016, p.97) calls metasemiosis, defined as 'reflection on meaning-making', and through this explicitness, students are guided to being able to make their choices in an informed way. But the lesson observations showed that teachers did not always make the grammar-meaning link clear or did not verbalise the link with clarity. For example, in one lesson looking at the use of time adverbials to provide precise detail in scientific writing, the teacher did a valuable physical activity, showing how time adverbials could be moved within the sentence, and stressed to the students that they could make a choice about where to put them in a sentence, but she did not discuss how information was differently foregrounded or how cohesion was created, depending on the positioning of these adverbials. As a consequence, when the teacher asked at the end of the lesson what they had learned about time adverbials, one student said 'you can move them to the front or the end'. The teachers were often very positive in highlighting that as writers they could make choices but were less assured in making the extra learning step of directly discussing the effect of those choices.

It is really only possible to make effective choices in writing if students' decision-making is informed by their understanding of 'the effects of different choices on the rhetorical power of their writing' (Lefstein, 2009, p.382). As noted above, although the teachers involved in the study did not always draw out the grammar-meaning relationship, they did emphasise choice. However, perhaps because of the high-stakes assessment, the writing text was often treated as a self-contained and

free-standing unit, divorced from the context in which it was produced and the motivations of the person who produced it. There is an opportunity to give more time and space to discussion of authorial intention – what the writer wants to achieve through the writing in terms of how he or she wants to make their reader think, feel or do.

3.5.3 The Locus of Control

Informed choices and consideration of authorial intention help to transfer the locus of control from the teacher to the student and give the student greater independence and freedom to choose. Young writers need 'control over grammar and lexis', so that they can 'realize the meaning potential that language affords us' (Janks, 2009, p.130), and not merely replicate teacher models or assessment criteria. Such control is not simply about mastery of grammar and vocabulary but about being able to take ownership of writing and being a writer and make writerly decisions consistent with authorial intention. Some of the students in this study demonstrate their growing independence and ownership of writing and their growing capacity to articulate the choices they have made and, in some cases, as shown above, to begin to challenge the teachers' view of what is 'best' in writing.

Whilst it is clear from the data that high-stakes assessment and the use of targets can have the result of ensuring that the locus of control remains firmly with the teacher, the data showing how students are developing independence and making their own choices signals that the locus of control does shift in some instances to students. Some writers have been able to adopt more independent and autonomous stances in relation to metalinguistic choices. The 'grammar as choice' pedagogy underpinning this study has always encouraged playfulness with grammar and language (Jones et al., 2013), partly because playfulness stands in contradistinction to a rule-bound view of grammar. But it is also important because it creates space for risk-taking and experimentation with language choices and for reflection on those choices. Such playfulness is one way in which the locus of control is given to student writers as they experiment with possibilities and develop the skills of evaluation which foster independent decision-making. In many observed lessons, the dialogic discussion was stimulated by the encouragement for writers to produce several versions of a sentence or paragraph or to 'play around' with different options.

3.6 Final Remarks

This analysis of student writers' metalinguistic talk, following teaching which sought to open up their understanding of their relationship between grammatical choices and rhetorical effects in writing, presents a nuanced understanding of

classroom practice. On the one hand, it signals how high-stakes assessment and targets can reduce and inhibit students' power of choice. Similarly, an over-focus on lexical choice with no real discussion of the connotations and effects of word choices in a context hampers student choice, because it does not develop independent metalinguistic understanding of the relationship between choice and meaning. But at the same time, where teachers more fully adopt a Hallidayan view of language and enact those principles in the writing classroom, there is real evidence that students can implement and articulate their own choices with increasing freedom and independence. In other words, students' capacity to exercise agency and choice in writing is enabled or constrained by curriculum requirements and by teachers' pedagogical practices in facilitating metalinguistic understanding. Developing awareness of the authorial role, through increased metalinguistic understanding, is central to enabling young writers to appropriate the power of choice.

It is crucial to note that these distinctions between restraint and empowerment and compliance and independence seem to operate on a continuum, rather than being distinctive characteristics of individual teachers or individual students. Or put another way, the teachers in our study were sometimes very controlling in how they handled the notion of choice, but at other times were confidently handing over independence to learners. On one level, this is likely to be attributable to the presence of accountability and high-stakes assessment, which acts as a constraint on them as teachers. But it is also likely to be because the functionally oriented approach to grammar and language is not yet fully familiar to them, and in particular the capacity to recognise and articulate the precise relationship between a grammar choice and its meaning-making effect in a particular text is growing, rather than mature knowledge. There is rich scope for further research and professional development, co-created with teachers, to explore and develop these ideas and issues in the classroom.

We would argue that a functionally oriented approach to writing is more socially inclusive than pedagogies, which do not make visible how language is shaping meaning and which thus, albeit unwittingly, reproduce existing social hierarchies. Many have argued, as Smidt does, that 'writing can be used actively to affirm privileged ways of speaking and writing or to resist and challenge them' (Smidt, 2009, p.124), but these goals may remain idealised if insufficient attention is afforded to how all learners learn independence and mastery as writers. Embedding grammar meaningfully in the teaching of writing, by developing understanding of the links between a grammatical choice and its rhetorical effect, has rich potential for fostering text-oriented authorial intention, enabling writerly metalinguistic discussion and decision-making about language possibilities and empowering writers' capacity to make effective choices.

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References

Alexander, R. (2018). Developing dialogic teaching: Genesis, process, trial. *Research Papers in Education, 33*(5), 561–598. https://doi.org/10.1080/02671522.2018.1481140

Barnes, D. (2010). Why talk is important. *English Teaching: Practice and Critique, 9*(2), 7–10.

Bereiter, C., & Scardamalia, M. (1982). From conversation to composition: The role of instruction in a developmental process. In R. Glaser (Ed.), *Advances in instructional psychology* (Vol. 2, pp. 1–64). Lawrence Erlbaum Associates.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Carter, R., & McCarthy, M. (2006). *Cambridge Grammar of English: A comprehensive guide: Spoken and written English grammar and usage*. Cambridge University Press.

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Sage.

Chen, H., & Myhill, D. A. (2016). Children talking about writing: Investigating metalinguistic understanding. *Linguistics in Education, 35*, 100–108. https://doi.org/10.1016/j.linged.2016.07.004

Clark, U. (2010). Grammar in the curriculum for English: what next? *Changing English, 17*(2), 189–200. https://doi.org/10.1080/13586841003787332

DfE. (2013). *English appendix 2: Vocabulary, grammar and punctuation*. DfE.

DfE. (2014). *The National Curriculum in England: English Programmes of Study* https://www.gov.uk/government/publications/national-curriculum-in-england-english-programmes-of-study/national-curriculum-in-england-english-programmes-of-study. Accessed 24.03.20.

Exley, B., Kervin, L. & Mantei, J. (2016). Playing with grammar: A pedagogical heuristic for orientating to the language content of the Australian Curriculum: English. *English in Australia, 51*(2), 100–110.

Flavell, J. H. (1976). Metacognitive aspects of problem solving. In L. B. Resnick (Ed.), *The nature of intelligence* (pp. 231–235). Lawrence Erlbaum Associates.

Gebhard, M., Chen, I., & Britton, L. (2014). "Miss, nominalization is a nominalization": English language learners' use of SFL metalanguage and their literacy practices. *Linguistics and Education, 26*, 106–125. https://doi.org/10.1016/j.linged.2014.01.003

Gombert, J. E. (1992). *Metalinguistic development*. University of Chicago Press.

Graham, S., & Rijlaarsdam, G. (2016). Writing education around the globe. *Reading & Writing: An Interdisciplinary Journal, 29*, 781–792. https://doi.org/10.1007/s11145-016-9640-1

Halliday, M. (1978). *Language as social semiotic: The social interpretation of language and meaning*. Edward Arnold.

Halliday, M. A. K. (1985). *An introduction to functional grammar* (1st ed.). Edward Arnold.

Halliday, M. A. K. (2004). Three aspects of children's language development: Learning language, learning through language, learning about language. In J. J. Webster (Ed.), *The language of early childhood: Volume 4 in the collected works of MAK Halliday: Volume 3 in the collected works of MAK Halliday* (pp. 308–326). Continuum.

Halliday, M. A. K., & Mathiessen, C. (2004). *An introduction to functional grammar* (3rd ed.). Edward Arnold.

Hudson, R. (2004). Why education needs linguistics. *Journal of Linguistics, 40*(1), 105–130. https://doi.org/10.1017/S0022226703002342

Humphrey, S. L., & Hao, J. (2019). New descriptions of metalanguage for supporting English language learners' writing in the early years: A discourse perspective. *The Handbook of TESOL in K-12*, 213–229. https://doi.org/10.1002/9781119421702.ch14

Janks, H. (2009). Writing: A critical literacy perspective. In R. Beard, D. Myhill, J. Riley, & M. Nystrand (Eds.), *The sage handbook of writing development* (pp. 126–136). Sage.

Jones, S. (2020). Developing a pedagogy of empowerment: Enabling primary school writers to make meaningful linguistic choices. In H. Chen, D. A. Myhill, & H. Lewis (Eds.), *Developing*

writers across the primary and secondary years: Growing into writing (pp. 154–172). Routledge.

Jones, S., Myhill, D. A., Watson, A., & Lines, H. E. (2013). Playful explicitness with grammar: A pedagogy for writing. *Literacy, 47*(2), 103–111. https://doi.org/10.1111/j.1741-4369.2012.00674.x

Kellogg, R. T. (1994). *The psychology of writing*. Oxford University Press.

Kolln, M., & Gray, L. (2016). *Rhetorical grammar: Grammatical choices, grammatical effects*. Pearson.

Lefstein, A. (2009). Rhetorical grammar and the grammar of schooling: Teaching "powerful verbs" in the English National Literacy Strategy. *Linguistics and Education, 20*, 378–400. https://doi.org/10.1016/j.linged.2009.04.002

Lines, H. (2020). Articulating authorial intentions: Making meaningful connections between reading and writing in the secondary classroom. In H. Chen, D. A. Myhill, & H. Lewis (Eds.), *Developing writers across the primary and secondary years: Growing into writing* (pp. 237–255). Routledge.

Lines, H. E., Myhill, D. A., & Jones, S. M. (2019). The relationship between metalinguistic understanding, student writing and teaching. In C. Bazerman, B. Y. G. Pinzon, D. Russell, P. Rogers, L. B. Pena, E. Narvaez, P. Carlino, & M. C. M. Tapia-Ladino (Eds.), *Knowing writing: Research across Borders* (pp. 115–134). Pontificio Universidad Javeriana.

Locke, T. (2009). Grammar and writing: The international debate. In R. Beard, D. Myhill, M. Nystrand, & J. Riley (Eds.), *International handbook of writing development* (pp. 182–193). Sage.

Macken-Horarik, M. (2016). Building a metalanguage for interpreting multimodal literature: Insights from systemic functional semiotics in two case study classrooms. *English in Australia, 51*(2), 85–99.

Macken-Horarik, M., Love, K., Sandiford, C., & Unsworth, L. (2017). *Functional Grammatics: Re-conceptualizing knowledge about language and image for school English*. Routledge.

Mercer, N., Hennessy, S., & Warwick, P. (2019). Dialogue, thinking together and digital technology in the classroom: Some educational implications of a continuing line of inquiry. *International Journal of Educational Research, 97*, 187–199. https://doi.org/10.1016/j.ijer.2017.08.007

Micciche, L. (2004). Making a case for rhetorical grammar. *College Composition and Communication, 55*(4), 716–737.

Moore, J., & Schleppegrell, M. J. (2014). Using a functional linguistics metalanguage to support academic language development in the English language arts. *Linguistics and Education, 26*, 92–105. https://doi.org/10.1111/j.1467-9922.2012.00742.x

Myhill, D. A. (2021). Grammar re-imagined. *English in Education, 55*(3), 265–278. https://doi.org/10.1080/04250494.2021.1885975

Myhill, D., Lines, H., & Jones, S. (2020). Writing like a reader: Developing metalinguistic understanding to support reading-writing connections. In R. Alves, T. Limpo, & R. Joshi (Eds.), *Reading-writing connections*. Literacy studies (Perspectives from cognitive neurosciences, linguistics, psychology and education, Vol 19) (pp. 107–122). Springer.

Myhill, D., & Newman, R. (2019). Writing talk – Developing metalinguistic understanding through dialogic teaching. In N. Mercer, R. Wegerif, & L. Major (Eds.), *International handbook of research on dialogic education* (pp. 360–372). Routledge.

Myhill, D. A. (2018). Grammar as a meaning-making resource for improving writing. Contribution to a special issue working on grammar at school in L1-education: Empirical research across linguistic regions. *L1-Educational Studies in Language and Literature, 18*, 1–21. https://doi.org/10.17239/L1ESLL-2018.18.04.04

Myhill, D. A. (2011). 'The ordeal of deliberate choice': Metalinguistic development in secondary writers. In V. Berninger (Ed.), *Past, present, and future contributions of cognitive writing research to cognitive psychology* (pp. 247–274). Psychology Press/Taylor Francis Group.

Myhill, D. A., & Jones, S. M. (2015). Conceptualising metalinguistic understanding in writing. *Cultura y Educacion, 27*(4), 839–867. https://doi.org/10.1080/11356405.2015.1089387

Myhill, D. A., & Newman, R. (2016). Metatalk: Enabling metalinguistic discussion about writing. *International Journal of Education Research, 80*, 177–187.
Myhill, D. A., & Watson, A. (2014). The role of grammar in the writing curriculum: A review. *Journal of Child Language Teaching and Therapy, 30*(1), 41–62.
Myhill, D. A., Jones, S. M., & Wilson, A. C. (2016). Writing conversations: Fostering metalinguistic discussion about writing. *Research Papers in Education, 31*(1), 23–44. https://doi.org/10.1080/02671522.2016.1106694
Myhill, D. A., Jones, S. M., Lines, H. E., & Watson, A. M. (2012). Re-thinking grammar: The impact of embedded grammar teaching on students' writing and students' metalinguistic understanding. *Research Papers in Education, 27*(2), 139–166. https://doi.org/10.1080/02671522.2011.637640
Myhill, D. A., Lines, H. E., & Jones, S. M. (2018). Texts that teach: Examining the efficacy of using texts as models. *L1-Educational Studies in Language and Literature, 18*, 1–24. https://doi.org/10.17239/L1ESLL-2018.18.03.07
O'Connor, C., & Michaels, S. (2007). When is dialogue "dialogic"? *Human Development, 50*(5), 275–285. https://doi.org/10.1159/000106415
Olin-Scheller, C., & Tengberg, M. (2017). Teaching and learning critical literacy at secondary school. The importance of metacognition. *Language and Education, 31*(5), 418–431. https://doi.org/10.1080/09500782.2017.1305394
Resnick, L. B., Asterhan, C. S. C., & Clarke, S. N. (2015). Talk, learning and teaching. In L. B. Resnick, C. S. C. Asterhan, & S. N. Clarke (Eds.), *Socializing intelligence through academic talk and dialogue* (pp. 1–12). AERA.
Rojas-Drummond, S., Márquez, A. M., Hofmann, R., Maine, F., Rubio, A. L., Hernández, J., & Guzmán, K. (2016). Oracy and literacy in the making: Collaborative talk and writing in grade 6 Mexican classrooms. In A. Surian (Ed.), *Open spaces for interactions and learning diversities* (pp. 69–108). Sense Publishers.
Smidt, J. (2009). Developing discourse roles and positioning – An ecological theory of writing development. In R. Beard, D. Myhill, J. Riley, & M. Nystrand (Eds.), *The sage handbook of writing development* (pp. 117–125). Sage.
Standards and Testing Agency. (2016). 2016 teacher assessment exemplification: end of key stage 2. *English Writing*. London: Standards and Testing Agency https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/510902/STA-Ex2016-KS2-EW-AlexAnn_PDFA.pdf. Accessed 22.09.17.
Unsworth, L. (2001). *Teaching multiliteracies across the curriculum: Changing contexts of text and image in classroom practice*. Open University Press.
Unsworth, L. (2006). Towards a metalanguage for multiliteracies education: Describing the meaning-making resources of language-image interaction. *English Teaching: Practice and Critique, 5*(1), 55–76.
Wegerif, R. B. (2013). *Dialogic: Education for the internet age*. Routledge.

Chapter 4
The Role of Grammar and Vocabulary for Writing Instruction in School

Carmen Sotomayor

4.1 Introduction

In this chapter, we ask the question whether the teaching of grammar and vocabulary have an effect on students' written work at primary schools. In recent decades, teaching grammar has been controversial in the Spanish-speaking world, with questions about its effectiveness for learning and developing the written language. However, recent research has reassessed the teaching of grammar especially when converted into a linguistic and communication resource for writing, one of the axes of the language subject. In contrast, vocabulary is recognized as fundamental for the development of both the written and spoken language. The evidence shows that understanding the meaning of words determines comprehension, and for writing a text, it is particularly important that vocabulary is varied and avoids repetition, as this allows for communication with greater precision and a way by which the interlocutor can picture descriptions, events, or ideas in a text. How one might teach grammar and vocabulary for writing in schools is the focus of this chapter.

4.1.1 The Debate About Teaching Grammar in the Spanish-Speaking World

In the past, it was understood that learning grammar was the basis for understanding the written language. From the colonial period in Spanish America, this subject had to be taught in schools and that the written language should maintain the grammatical rules of the Spanish language. It was assumed that this would ensure writing and

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oral skills. Grammar was understood as the morphology of words and the syntax of statements, that is, a knowledge of the structure and inflection of words and their relationship in phrases and paragraphs (Rodríguez, 2012). This long-term trend, in its later period, had a strong influence on Saussure's theories of language structure, developed at the end of the nineteenth and beginning of the twentieth century. His theory states that there are two dimensions to a language, written and oral. Language is made up of a system of relatively stable signs (words) responding to the conventions, adopted by consensus, implicit among a community of speakers (Sotomayor et al., 2020), whereas speech encompasses the individual variants by which language is disseminated. The focal point of the theory of language structure is language, leaving out of his analysis the variables and dynamics of speech. However, at the beginning of the twentieth century, there was a change in the appreciation of the role of grammar in language instruction. It was argued that grammar was unhelpful for learning oral or the written language correctly (Bargalló, 2007), as such knowledge was really theoretical and not linked to actual language usage (Lenz, 1912).

In the 1960s, Noam Chomsky's theory of generative grammar introduced alternative dimensions for grammatical understanding. In this theory, grammar is the innate capacity that allows human beings to produce and comprehend infinite statements (Chomsky, 1965). His theory is focused on syntax, understood as the generative component of language (Bernal, 2018). Chomsky claimed that children arrive at school with basic linguistic competence and that the role of education should be to expand and develop this skill, making grammar both explicit and understandable for pupils (López Morales, 1992).

Both structuralism and generative grammar make abstract entities (language as a system of signs, for the former and linguistic competence based on syntax for the later) as their study goals, which obey principles and rules, without considering the contexts of communication. Both approaches make the analysis of formal components of language, such as phonology, morphology, and syntax a priority, and which are biased toward language itself rather than its use. It is likely that this approach to language has influenced the way that grammar is taught – that is, more focused on the transmission of contents that describe the language rather than on its varied use by speakers and specific communicative contexts.

Toward the end of the 1960s beginning of the 1970s, this view began to change also as a result of new linguistic theories, which emphasized the language's communicative dimension. It was proposed that knowing how to speak or write was not sufficient for effective communication (Allende & Condemarín, 1997; Medina, 2002) and that the analysis of ideal and decontextualized statements failed to take account of the communication situation or the social role of the speakers nor their intentions with the result that this type of analysis only examines the adequacy of statements measured by certain grammatical rules (Soto, 1997; Torres Tovar, 2009).

This perspective gave rise to the ideas of communication competence proposed by Hymes (1972) that expands the idea of linguistic competence to include its purpose, register, common knowledge shared with an audience, and its communicative context. This approach attaches importance to the pragmatic dimension of language and reoriented the study of language toward communication and social life.

4.1.2 Grammar in the Curriculum of Latin America

Beginning in the 1980s, this new focus on communication had considerable exposure in Latin America with an impact on school curriculum, stating that the teaching of the mother tongue was to enhance the communicative abilities of students. In most of Latin America's school curriculum, these abilities are operationalized by the development of reading, writing, and oral communication skills. For example, for reading, students should be able to find explicit information and infer meaning in a text as well as think about and evaluate its contents and form, so too communicative intention, audience, and context should be considered for writing as well as speech (UNESCO, 2013, 2015). With communicative competence and the production of oral expression and written texts at the center of the curriculum, knowledge of language and its functions and rules became far less important and practically invisible in study plans. In consequence, during recent decades, there has been a blurring of grammar teaching in Latin American curriculum.

Sotomayor et al. (2020) analyzed the presence of grammar and vocabulary in the curriculum of 14 countries that applied the TERCE[1] test at third and sixth grades. The study found that the majority of grammatical content was not linked to the communicative skills of reading, writing, and speech, although it appears to be more strongly related to the axis of writing. Specifically, it showed the predominance of morphological content (classes of words) and grammatical agreement, while metalinguistic contents were almost nonexistent in both grades tested. Vocabulary instruction is far more prominent in the Latin American curriculum and appears to be linked principally to speech and less for reading and writing. There is also an important emphasis to content related to the identification of the meaning of words, lexical selection (according to purpose and recipient) and lexical relations (synonyms, antonyms, semantic fields, among others). However, like grammar, metalinguistics is scarcely present. This study concluded that the integration of grammar and vocabulary for the communications perspective in the curriculum is still very preliminary in the case of grammar but was better articulated in terms of vocabulary content.

4.1.3 Grammar Teaching Integrated with Writing

During the last decade, the value of teaching grammar has been reappraised, particularly when learning how to write. Otañi and Gaspar (2002) noted that a communications focus, based on text or speech, disregards certain grammatical concepts which are needed to identify and resolve some issues with students' writing. The

[1] The Third Comparative and Explanatory Study (*Tercer Estudio Comparativo y Explicativo*, TERCE) is a test, coordinated by UNESCO, for third- and sixth-grade students in Latin America and the Caribbean in the areas of language, mathematics, and the natural sciences.

authors point out that to master certain grammar concepts allows an understanding of textual phenomena, for example, the mastery of syntax, (e.g., grammatical statements) for punctuation usage. Some authors (Hudson, 2004; Myhill et al., 2012) showed the importance of how language works to improve usage and so the need to teach certain ideas both simply and understandably so that pupils can use them in their written work.

Likewise, Fontich (2011a, b) and Camps (2009) maintain that teaching grammar influences the quality of writing when it takes account of the context of the written work. Other authors too note that it has an effect when related to concrete writing problems facing the student (Hudson, 2001, 2004; Jones et al., 2012; Myhill, 2011; Myhilll et al., 2013). It has been shown that there are better results when students are well prepared and teachers have greater grammatical knowledge (Myhill et al., 2012). Recent research also finds there are significant effects with less talented students when this approach is directed at writing problems (Myhill et al., 2018).

Other studies highlight the value of knowing how a language works for creative writing (Derewianka, 2007; Derewianka & Jones, 2010; Meneses et al., 2017) and encourage metalinguistic reflections when producing specific types of writing (Camps, 2009; Milian & Camps, 2006; Rodríguez, 2011, 2012) with the purpose of improving writing quality.

4.1.4 Teaching Vocabulary as Part of Writing

Vocabulary plays a fundamental role in the processes of written composition through the selection of words and their combinations, which give meaning to the text. However, students who take a lot of time and make a great cognitive effort to select words could see their writing composition process hampered (Castillo & Tolchinsky, 2018). But the more words students have available, the more possibilities there are to select the appropriate terms to express the message and achieve the desired effect on the audience (Cuetos, 2009).

The diversity and lexical sophistication are some of the most analyzed variables when evaluating writing quality (Crossley, 2020). Lexical diversity refers to the number of different words in a text (McNamara et al., 2010; Perfetti & Hart, 2002) and lexical sophistication to the use of rarely used words which are often more abstract and specific. Further, they tend to be longer with more complex syllabic structures (Crossley, 2020). These indicators are positively linked to writing quality (McNamara et al., 2010; Olinghouse & Leaird, 2009; Olinghouse & Wilson, 2013), particularly lexical sophistication (Crossley & McNamara, 2016; Crossley, 2020). Writers who show more talent have a more difficult lexicography available to process and recognize, either because of the use of infrequent words or because the internal structure of the word has complex syllables (Crossley & McNamara, 2016; Crossley, 2020).

4.1.5 Writing Problems Related to Grammar and Vocabulary

One of the most problematic aspects of students' writing in primary education is punctuation for it greatly effects on the coherence and cohesion of their written expression. This observation is confirmed by Graham and Harris (2019), who note that when transforming ideas into words and structures for communication, then the teaching of sentence construction and punctuation has a favorable impact on the overall quality of texts. However, Sotomayor et al. (2016) found that punctuation to separate different sentences in narratives is scarce among Chilean fourth-grade students, often replacing the dot by the conjunction "and." This phenomenon could be due to students using the conjunction "and" to delimit sentences, which might show that they have few resources for the period function as the limit to the sentence.

It was also been found, in terms of vocabulary, that when writing narratives, expositions, and arguments, Chilean fourth grade students use words with little sophistication and limited lexical variety. They are also likely to employ the same words that appear in the instructions for writing such texts (Gómez et al., 2016). Similarly, it has been found that different types of texts are composed differently due to the vocabulary involved so that there is greater lexical diversity in both narratives and argument than expositions (Olinghouse & Wilson, 2013).

The previous results led to the implementation of an activity that considered the explicit teaching of the sentence in order to improve the use of punctuation in a story. In this activity, a sentence is defined as a construction that requires at least one conjugated verb and which can be extended to other classes of words and phrases that make it up. Sentences was used because they are more familiar to students and have a teacher consensus about their value, and so easier to teach to primary school students. This particular approach also addressed the explicit teaching of lexical sophistication and diversity for they are the dimensions of vocabulary that are most closely linked to the quality of writing.

4.2 The Activity: Teaching Grammar and Vocabulary Integrated to Writing

Due to the relevance of grammar and vocabulary for writing texts, it seemed important to examine the role played by an instructional practice that integrated grammar to the production of written stories (narrative text) and articles (expository text) associated to the structure of these textual genres. This instructional practice was conducted in the classroom setting.

4.2.1 Participants

Seven schools were chosen at random, from a random stratified sample, with the following characteristics: (a) to be classified by the Ministry of Education as a school with an average socioeconomic level, (b) to be a state public or a state subsidized school, and (c) to have obtained average results in the standardized national tests for writing and by which to minimize that the results were influenced by the socioeconomic variable. The idea was that the average level in the standard writing test was an indicator of similar teaching quality. Schools were selected from the metropolitan region, as it has the greatest number of students in Chile (40%). All the schools selected showed results that were close to the national average (50 points) in the last two annual written tests, that is, between 44 and 56 points.

As two of the seven schools had two language teachers, the final sample consisted of nine classes. The sample had 181 sixth-grade students (between 11 and 12 years old), coming from six classes of the intervention group (108 students) and three classes in the control group (73 students). Sixth grade was chosen as this is the last year of primary education. Students at this level are expected to demonstrate fluent writing skills, which will allow them to undertake the exercises proposed for the teaching units.

The design was mixed factorial consisting of two factors: one *between groups*, that is, the sample versus the control group, and the other factor *intragroup*, that is, pre- and posttest. Therefore, it was necessary to have an intervention and a control group. The schools were selected at random to be the intervention or control group, but it was not possible to select students at random as they were already part of a class and for which a quasi-experimental design had to be applied (Balluerka & Vergara, 2002). The writing activity was applied in six sixth-grade classes in 20 sessions over 8 months. To evaluate the impact of this activity, writing tests were given on two occasions, prior to the intervention (pretest) and after it (posttest). The control group also received these tests but continued with its usual language classes that, according to the national curriculum for writing, include the goals of writing stories and articles using their structure, diverse and pertinent vocabulary, and correct punctuation (Ministry of Education, 2012).

For the statistical analysis, special needs students (defined by school registries) were removed from the sample. Therefore, the final sample consisted of 167 sixth-grade students, of which 99 were involved in the writing activity and 68 in the control group.

4.2.2 The Writing Activity

The activity was divided into two teaching modules as shown in Table 4.1. The first unit linked grammar teaching to story writing (narrative text), taking into account the textual structure. The second unit included vocabulary teaching to an article (expository text) as well as considering the textual structure of this *genre*.

Both units had a pilot phase in two schools with three teachers and 53 sixth-grade students. This pilot phase allowed for the units to be adjusted and to ensure that it could be applied in the selected schools. The main adjustments were the simplification of the instructions and an increase in written work. Each unit is organized into ten 90-min classes and has two materials, one for teachers and the other for students. The first provides pedagogical guidance by which to implement the unit, while the second only presents the learning activities.

Unit 1 focused on the idea of a sentence as its recognition allows for the correct use of the period in story writing, for punctuation at this level is a serious problem in narrative texts (Sotomayor et al., 2016). The unit excercises the use of the period at the end of a sentence together with verb, noun, article, adjective and adverb, and noun and verb prepositional phrases, in addition to metalinguistic considerations about their use in writing (see Table 4.1). Unit 2 emphasized lexical variety and sophistication, because expository texts, dealing with more specific topics, require a specialized vocabulary, implying the use of varied and more sophisticated words (Olinghouse & Wilson, 2013). The instructional activities also emphasized the students' metalinguistic thinking on the use of varied and sophisticated vocabulary in the writing of their texts (see Table 4.1).

Both units examine structure for narrative (unit 1) and expository text (unit 2). The activity was to write drafts for each genre following their particular structure. Then, the pupils revised their drafts individually or in pairs, according to the specific guidelines supplied for each unit.

A group of teachers used unit 1 in the first semester and unit 2 in the second, while for the remaining teachers, the order was inverted to avoid bias. Prior to the application of each unit, there was a 4-h training session reviewing the unit activities, resolving questions about its application, and exploring its contents further. Plus PowerPoint presentations were provided to help class instruction.

Teachers used each teaching unit independently, and this allowed for flexibility of implementation anticipating, for example, a school event that could interrupt the process. In addition, in four occasions, members of the research team observed the teachers when applying the activities in their classrooms in order to ensure the homogeneity of the intervention. These observations took place to coincide with the teaching of numbers 4 and 7 (see Table 4.1) of each unit as the former has a greater focus on the content and the latter on integration into the writing process. By observing these classes, the research team was able to understand conceptual errors and the integration of the written content.

Table 4.1 Objectives and content of teaching units

Grammar *Object:* to write a book of stories for students in lower grades		*Vocabulary* *Object:* to write an encyclopedia with articles for students in lower grades	
Class	Content	Class	Content
1	*Differences between oral and written stories* Compare sentences in a spoken and written story	1	*Differences between oral and written articles* Compare the vocabulary of an oral and written article and then discuss about the most sophisticated and varied version
2	*Story structure* Identify the beginning, breaks, development, and the ending of a story	2	*Article structure* Identify the introduction, development, and conclusion of an article
3	*Sentence, noun, and verb* Recognizing nouns and verbs in images and forming sentences identifying gender and number: revising the full stop at the end of a sentence	3	*Sophisticated (infrequent) vocabulary* Distinguish frequent and infrequent words by the use of images and discussion about the function of an authentic article
4	*Nouns, adjective, and prepositional phrase* Write complete sentences using nouns, verbs, adjectives, and prepositional phrases	4	*Sophisticated vocabulary (precision)* Compare the introduction of an article changing precise for generic words and discussing their effects on the significance of the test
5	*Writing and revision of the beginning* Write the beginning of a story including adjectives and prepositional phrases that describe people and background/stage Review with a partner using an evaluation guideline	5	*Writing and revision of the introduction* Write an introduction to an article including frequent, infrequent, and precise words Review it with a partner using an evaluation guideline
6	*Verbs, adverbs, and prepositional phrases* Replace adverbs and prepositional phrases in a story and analyze the function of this class of words	6	*Varied vocabulary (synonyms)* Analyze the meaning of synonyms in an expository text and discuss similarities among words
7	*Writing and revision of episodes* Develop the written story including adverbs and prepositional phrases to add information to particular episodes Review it with a partner using an evaluation guideline	7	*Writing and review of its development* *Varied vocabulary* (hyperonyms) Develop the written article, including frequent and infrequent words and precise and varied words Review it with a partner using an evaluation guideline

(continued)

Table 4.1 (continued)

Grammar *Object:* to write a book of stories for students in lower grades		*Vocabulary* *Object:* to write an encyclopedia with articles for students in lower grades	
Class	Content	Class	Content
8	*Writing and revision of the ending* Analyze the problem in the story and think about solving this problem Write the ending of the story and revise it	8	*Writing and revision of the conclusion* Read an incomplete article and write the conclusion Write the conclusion of the student's article and revise
9–10	*Edition and publication of the story* Edit the story with the help of a teacher and publish it as a book	9–10	*Edition and publication of the article* Edit the article with the help of a teacher and publish it as an encyclopedia

4.2.3 Writing Tests to Evaluate the Impact of the Activity

Student's writing was evaluated by comparing their written work prior to and after the intervention, that is, in the pretest and posttest. This material included a written story and an article, so that each student was evaluated on four texts. This material was supplied by the agency responsible for the standardized educational tests, the Educational Quality Agency (*Agencia de Calidad de la Educación, ACE*), that measures student's learning in Chile. In the pretest for the article, students were given images of types of transport (ship, helicopter, bicycle, etc.) and then to choose one and write a paragraph. This same procedure was adopted in the posttest that involved the writing of a paragraph based on images related to technology (mobile, camera, telescope, etc.)

To write the pretest story, they were given the following instructions: "Imagine that one day you are walking down the street and in front of you, a mysterious door appears that opens gently... Write a story in which you give an account of the adventure you experienced." To write the story for the posttest, the students received another assignment: "Your school organized a story contest about monsters. To participate in the contest, write a story with the title 'A good monster'." Both tests had been previously validated by the Educational Quality Agency to ensure they were consistent with and comparable to their evaluations of written work.

4.2.4 Analysis of the Written Texts

The 668 texts were analyzed for grammar and vocabulary, taking into account the textual structure of each genre.

4.2.4.1 Grammar

The analysis of grammar focused on identifying sentences and punctuation marks, specifically how many times and when the pupils use punctuation. The number of punctuation marks measures the first, while the proportion of correct punctuation usage the second. To do this, the texts were segmented into sentences in order to identify where these punctuation marks appeared (e.g., at the end or in the middle of the sentence) and, consequently, to classify their use as correct or incorrect. For analytic purposes, coordinated sentences were separated and counted as independent sentences.

The analysis was carried out by two members of the research team. To ensure its reliability, a double correction of 30% was also made, obtaining a weighted Kappa coefficient for inter-rate reliability of 0.96 for narrative texts and 0.89 for expository text scores. In proportion to the correct score, a weighted Kappa of 0.95 was obtained for the narrative texts and 0.81 for the expository texts.

4.2.4.2 Vocabulary

For vocabulary analysis, two indicators were used for lexical quality: variety and sophistication. Variety was defined as the number of varied words present in each piece of writing, i.e., the number of different words without considering repetitions (Gómez et al., 2016). Sophisticated words were defined as those with six or more characters, since the average number of words written by the children had four characters.

4.2.4.3 Textual Structure

Researchers designed two sets of rubrics by which to examine the structure of the stories and the articles. They examined the presence and development of the structure of each type of text: for stories (beginning, break, development or episodes, and ending) and for the articles (an introduction, development, and conclusions). The rubric has four levels of evaluation: at level 4, the presence of all the parts of the structure which is clearly evident; at level 3, the presence of development and another component; at level 2, the presence of development only; and at level 1, the structure which is not evident.

The texts were analyzed by two members of the research team. To ensure the reliability of the analysis, a double correction of 30% was made, obtaining a weighted Kappa coefficient for inter-rate reliability of 0.68 for expository texts and 0.79 for narrative texts. Figure 4.1 synthesizes the different stages in this study.

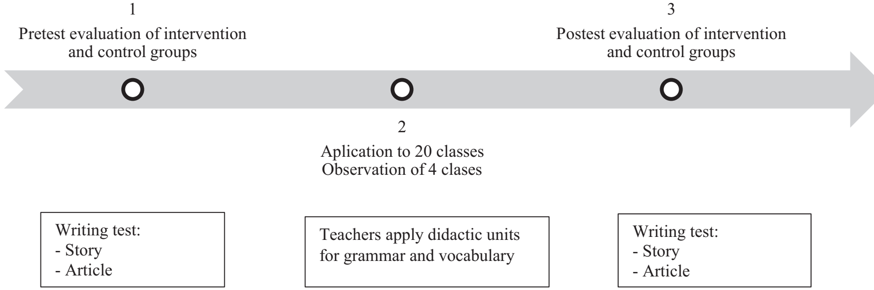

Fig. 4.1 Study stages

4.3 Results

First, to ensure comparability of the groups, a t-Student test was applied to specific variables, in order to see possible differences in the pretest. Second, the descriptive results were analyzed for all variables to see possible impact trends. Third, an analysis of variance (ANOVA) mixed factorial analysis with two factors or independent variables (group and time) was applied to analyze the impact of the teaching activity on students' writing. ANOVA mixed factorial has the advantage of identifying between and within group factors. The group (intervention or control) was considered as between group and time (pre- and posttest) as within-group. As the sample size of both groups is unbalanced, a Sum of Squares type III was used, as it is widely regarded as the most appropriate in such cases (Keppel & Wickens, 2004). An independent ANOVA mixed factorial was used for each of the dependent variables, that is, grammar (punctuation frequency and proportion of correct punctuation), vocabulary, (diversity and lexical sophistication), and textual structure (presence of components of textual structure). Each of these variables has two evaluations (story and article). It was expected that there would be significant interactions between time and group, which showed the positive impact of the writing activity on the dependent posttest variables. In those cases where there was a significant interaction between group and time, t-Student test was used to analyze if the impact was positive for the teaching activity group.

4.3.1 Differences Between the Groups in the Pretest

The results of the t-Student tests showed that there were no significant differences between the intervention group and the control group in the pretest in most of the measured variables. There were only differences in the expository structure variable ($t_{(100)} = -2$; $p = 0.03$) and in the total punctuation variable in the narrative text ($t_{(100)} = 2$; $p = 0.04$). That is, before the writing activity, the control and intervention groups were similar in all the measures evaluated, except in expository structure and

total punctuation scores for the narrative text. In the case of expository structure, it was observed that the difference in the pretest was because the control group had a better average score in this variable prior to the intervention (see Table 4.2). In the case of the size of total punctuation score for the narrative text, the difference was in favor of the intervention group. As the analysis showed, there was no significant impact of the intervention, these differences were not considered an impediment to the analysis and interpretation of the results.

4.3.2 Descriptive Results

Table 4.2 shows the descriptive results of the study before and after the intervention. In general, there is an increase in most of the scores in both groups, an aspect that was expected due to the progress and learning of the students during the school year.

Table 4.2 Pre- and posttest descriptive results for intervention and control groups

			Time			
			Pre		Post	
Dependent variable	Text type	Group	*M*	*SD*	*M*	*SD*
Grammar						
Punctuation quantity (Range 0–17)	*Narrative*	Intervention	2.25	2.78	2.72	2.19
		Control	1.41	2.43	1.58	1.71
	Expository	Intervention	1.29	1.44	1.93	1.76
		Control	1.43	1.80	1.96	1.61
Correct punctuation (Range 0–1)	*Narrative*	Intervention	0.13	0.13	0.19	0.15
		Control	0.11	0.18	0.11	0.12
	Expository	Intervention	0.24	0.25	0.28	0.25
		Control	0.21	0.25	0.27	0.22
Vocabulary						
Lexical diversity	*Narrative*	Intervention	0.63	0.09	0.60	0.08
		Control	0.64	0.09	0.58	0.07
	Expository	Intervention	0.74	0.10	0.73	0.10
		Control	0.73	0.10	0.71	0.10
Lexical sophistication	*Narrative*	Intervention	21.64	10.82	26.10	11.51
		Control	21.51	11.86	27.08	10.41
	Expository	Intervention	11.64	6.35	18.84	9.60
		Control	13.17	10.84	22.05	19.39
Textual structure (Range 1–4)						
	Narrative	Intervention	3.22	0.63	3.52	0.70
		Control	3.38	0.71	3.35	0.76
	Expository	Intervention	2.31	0.84	2.77	0.87
		Control	2.59	0.74	2.63	0.77

The only variable that shows a slight decrease in scores is that of lexical diversity in both types of texts.

The narrative and expository texts show differences, where a lower score was obtained in the structure of the expository text in both times and groups. Less lexical sophistication was also observed in this type of text. However, the percentage of correct punctuation and lexical diversity is greater in the expository text than in the narrative.

4.3.3 Analysis of Impact Results

The analysis of the mixed ANOVA shows a significant interaction between the time and group factors in the case of narrative structure ($F_{(1,165)} = 5.47$; $p = 0.021$), expository structure ($F_{(1,165)} = 6.32$; $p = 0.013$), and the proportion of correct punctuation in stories ($F_{(1,165)} = 5.01$; $p = 0.027$). These results show a possible impact of the intervention on these variables. No significant interactions were found between the time and group factors in the number of points used, in the proportion of correct punctuation in expository texts, or in the vocabulary variables.

4.3.4 Further Analysis

We checked whether the significant interactions between time and group were due to the intervention on the variables narrative structure, expository structure, and proportion of correct punctuation in narrative texts. The analysis of paired Student's t-tests showed significant differences between the pre- and posttest results in the intervention group for narrative structure ($t_{(1,98)} = -3.58$; $p < 0.001$), expository structure ($t_{(1,98)} = -4.26$; $p < 0.001$), and the proportion of correct punctuation in narratives ($t_{(1,98)} = -4$; $p < 0.001$). There was no significant differences between the pre- and posttest in the control group for narrative structure ($t_{(1,67)} = 0.25$; $p = 0.806$), the expository structure ($t_{(1,67)} = -0.36$; $p = 0.717$), nor the proportion of correct punctuation in the narrative texts ($t_{(1,67)} = 0.2$; $p = 0.9$).

In summary, these results show that this teaching activity had a positive impact on scores obtained in narrative and expository structures and the proportion of punctuation correctly used in stories.

4.4 Discussion

The results show that unit 1 had an impact on punctuation, as students used correct punctuation more often in their posttest scores. They demonstrated greater diversity when writing stories, replacing the conjunction "and" – common practice in

primary school students (Sotomayor et al., 2016) – with a full stop to show the end of the sentence. This practice is consistent with the research that shows correct punctuation is strengthened when students grasp the idea of sentence (Hudson, 2004). It is particularly important that students understand punctuation when writing stories for it is in this *genre* they tend to have the greatest problems, so reducing their coherence and legibility (Sotomayor et al., 2016). This improvement was not observed with the other written activity, the article. Perhaps this is because, here, the teaching unit gave priority to the use of varied and sophisticated words rather than the idea of a sentence.

Unit 2 did not have a significant improvement on the vocabulary of the articles written by the student, that is, greater variety or sophistication in the words used, as a product of the teaching exercise. It is possible that the relative complexity of the explanations of lexical diversity and sophistication influenced the student's understanding, finding them difficult to apply in their writings. Although the writing tests were validated by ACE, the instructions in the pre- and posttest were different, so the student's lexical knowledge could have been different for each topic. Perhaps students need to be already in possession of a larger vocabulary to be able to use sophisticated and varied words in their texts. These results suggest that teaching for the purpose of integrating vocabulary with writing requires more research.

Finally, it was found that the writing activity had an impact on the writing of story and article, for in the posttest both texts had a more sophisticated structure. This is consistent with research that shows that the explicit teaching of structure produces more complex texts (Donovan & Smolkin, 2006; Spinillo & de Melo, 2018; Tolchinsky, 2006; Wells, 2008). This improvement is because there were separate drafts for each component of the narrative or expository structure. Pupils planned and revised their texts at part of the writing process. Therefore, students were more aware of the organization of information as each component has a function in their texts. The most striking improvements in the article were in the organization of its structure, particularly when taking into account that the expository structure is more difficult for students than the narrative (Álvarez, 2010). Writing and revising components helps students better organize their texts and is consistent with other research that shows it to be an effective teaching strategy, leading to more complicated, coherent, developed, and longer texts (Donovan & Smolkin, 2006; Sotomayor et al., 2013; Tolchinsky, 2006; Wells, 2008; Graham et al., 2012).

Our research also showed that student's grammar and textual structure improved with better punctuation and structure, and again it is likely that the planning and revision process contributed to this improvement and supports the research that the teaching of skills and knowledge can improve student writing (De la Paz & Graham, 2002). But this was not the case with the article, for although they showed a better appreciation of structure, they did not use a more diverse and sophisticated vocabulary. As previously mentioned, it is likely that students understood less about the posttest than the pretest subject, and so, they were unable to use a more complex vocabulary. This leads us to think about the importance of stimuli to evaluate written production, a matter that should also be investigated in future research.

In short, the results show that the intervention had an impact on the correct use of the period in stories, which could be related to an appreciation of the notion of grammatical sentence (Hudson, 2004). Likewise, the writing activity had an effect on the textual structure in the story and in the article, corroborating that the explicit teaching of textual structure is a useful resource to improve the quality of school writing, as indicated by Graham and Harris (2019). These results also suggest that the integration of various dimensions to the teaching of writing, in this case, grammar and textual structure, can improve the quality of writing.

Teacher skills could also have influenced the application of the different units. They did not have in-depth training in writing, grammar or vocabulary, which could be seen during the training process. However, it is possible that, after their participation in this exercise, they have increased and deepened their grammatical, lexical, and textual knowledge, as well as their didactic knowledge of how to integrate these dimensions into writing. As it was not considered in the study design, it could not be measured but should be addressed in future research.

Finally, even when it is known that the context and functioning of schools is a factor that makes the implementation of an impact study more complex, this type of research allows us to approach school reality in its natural state and create instructional designs that can be replicated or adapted by others in the educational system. In this sense, the didactic activity that addressed integrating grammar to story writing and its textual structure could be a feasible approach when considering the didactic of writing.

4.5 Final Remarks

This chapter proposes the existence of two key linguistic characteristics for teaching writing: grammar and vocabulary. First, it reviewed the debate about the effectiveness of teaching grammar at school and suggests that it can improve the quality of the texts if it is approached as a communicative resource and with a focus on language inquiry. The research on which this chapter is based maintains that writing texts is a useful way to teach grammar and proposes a teaching activity that integrates grammar into story writing by producing drafts of the different parts of its textual structure (beginning, break, development or events, and ending). The purpose of the activity is for students to understand the idea of a sentence by identifying classes of words as a way to become aware of the limit of a sentence and improving punctuation. The result of this activity was positive, illustrated by the correct punctuation of sentences in the stories and an improvement in the understanding of the structure of this textual genre.

In parallel, the chapter shows the importance of vocabulary as another essential linguistic pillar to produce quality writing. That is why the activity addresses the explicit teaching of vocabulary for an article notably lexical variety and sophistication, by the production of drafts of the different parts of its textual structure (introduction, development, and conclusion). The purpose is that students increase the

number of varied and sophisticated (infrequent) words. The results show that while there is no impact on the vocabulary variables, there is a greater integration of grammar and writing than with vocabulary and writing. Drafts in both cases contribute to a better understanding of the textual structure.

These findings have pedagogical implications. First, the teaching of grammar (the idea of sentences and word classes) integrated with writing and with a strong focus on metalinguistic thinking may be a useful strategy not only for teaching writing but also for a deeper knowledge of the mother tongue. This could be relevant not only for writing but also for the students' reading comprehension and language. Second, the explicit teaching of vocabulary (variety and lexical sophistication) integrated into writing may not have been absorbed by students, as the ideas are probably too complex and vague to be understood easily by nonexpert writers. Thus, teachers and researchers must continue to explore new didactic alternatives that foster the development of a broader and more sophisticated vocabulary in primary school students. Third, drafting of the textual structure of each genre seems to have a significant impact and be easily assimilated by students. Awareness of textual structure has been cited by various authors (Fitzgerald & Teasley, 1986; Olinghouse et al., 2015; Spinillo & de Melo, 2018) as a variable that has a significant impact on the quality of texts. Finally, the development of materials designed and used in this research (grammar and vocabulary teaching units) can contribute to the teaching of writing in the classroom. The units should be distributed widely so that teachers can use, adapt, or recreate them. This should promote a greater articulation between research and school teaching, one of the great challenges for education today.

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References

Álvarez, T. (2010). *Competencias básicas en escritura* [Basic writing skills]. Octaedro.

Allende, F. & Condemarín, M. (1997). *De la asignatura de castellano al área de lenguaje: lengua castellana y comunicación en la educación media*. Dolmen Ediciones.

Balluerka, N., & Vergara, A. I. (2002). *Diseños de investigación experimental en psicología* [Experimental research designs in psychology]. Pearson Prentice Hall.

Bargalló, M. (2007). *Un viejo debate: gramática y enseñanza de la lengua* [An old debate: grammar and language teaching]. Ponencia en el X Simposio Internacional de Comunicación Social, Santiago de Cuba, 22 de enero.

Bernal, J. (2018). Panorama de lingüistas del siglo XX: Glosas del autor [Overview of 20th-century linguists: author's glosses]. *Cuadernos de Lingüística Hispánica, 11*, 41–48.

Camps, A. (2009). Actividad metalingüística y aprendizaje de la gramática: Hacia un Modelo de enseñanza basado en la actividad reflexiva [Metalinguistic activity and grammar learning: Towards a teaching model based on reflective activity]. *Cultura y Educación, 21*(2), 199–213. https://doi.org/10.1174/113564009788345853

Castillo, C., & Tolchinsky, L. (2018). The contribution of vocabulary knowledge and semantic orthographic fluency to text quality through elementary school in Catalan. *Reading and Writing, 31*(2), 293–323. https://doi.org/10.1007/s11145-017-9786-5

Crossley, S. (2020). Linguistic features in writing quality and development: An overview. *Journal of Writing Research, 11*(3), 415–443. https://doi.org/10.17239/jowr-2020.11.03.01

Crossley, S., & McNamara, D. (2016). Say more and be more coherent: How text elaboration and cohesion can increase writing quality. *Journal of Writing Research, 7*(3), 351–370. https://doi.org/10.17239/jowr-2016.07.03.02

Cuetos, F. (2009). *Psicología de la escritura* [Psychology of writing]. Wolters Kluwer Educación.

Chomsky, N. (1965). *Aspects of the theory of syntax*. MIT Press.

De La Paz, S., & Graham, S. (2002). Explicitly teaching strategies, skills, and knowledge: Writing instruction in middle school classrooms. *Journal of Educational Psychology, 94*(4), 687–698. https://doi.org/10.1037/0022-0663.94.4.687

Derewianka, B. (2007). Changing approaches to the conceptualization and teaching of grammar. In J. Cummins & C. Davison (Eds.), *International handbook of English language teaching* (pp. 843–858). Springer. https://doi.org/10.1007/978-0-387-46301-8_56

Derewianka, B., & Jones, P. (2010). From traditional grammar to functional grammar: Bridging the divide. *NALDIC Quarterly, 8*(1), 6–17.

Donovan, C., & Smolkin, L. (2006). Children's understanding of genre and writing development. In C. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 131–143). The Guilford Press.

Fitzgerald, J., & Teasley, A. (1986). Effects of instruction in narrative structure on children's writing. *Journal of Educational Psychology, 78*, 424–432. https://doi.org/10.1037/0022-0663.78.6.424

Fontich, X. (2011a). La enseñanza de la gramática en primaria y secundaria: Algunas reflexiones y propuestas [The teaching of grammar in primary and secondary schools: Some reflections and proposals]. *Da investigação às práticas, 1*(2), 38–57.

Fontich, X. (2011b). Enseñar y aprender gramática en la escuela obligatoria, hoy [Teaching and learning grammar in compulsory school, today]. *Revista Espaço Pedagógico, 18*(1), 50–57.

Gómez, G., Sotomayor, C., Jéldrez, E., Bedwell, P., & Domínguez, A. M. (2016). Analysis of lexical quality and its relation to writing quality for 4th grade, primary school students in Chile. *Reading and Writing, 29*, 1317–1336. https://doi.org/10.1007/s11145-016-9637-9

Graham, S., & Harris, K. R. (2019). Evidence-based practices in writing. In S. Graham, C. MacArthur, & M. Hebert (Eds.), *Best practices in writing instruction* (pp. 3–28). The Guilford Press.

Graham, S., McKeown, D., Kiuhara, S., & Harris, K. R. (2012). A meta-analysis of writing instruction for students in the elementary grades. *Journal of Educational Psychology, 104*(4), 879–896. https://doi.org/10.1037/a0029185

Hudson, R. (2001). Grammar teaching and writing skills: The research evidence. *Syntax in the Schools, 17*(1), 1–6.

Hudson, R. (2004). Why education needs linguistics (and vice versa). *Journal of Linguistics, 40*(1), 105–130. https://doi.org/10.1017/S0022226703002342

Hymes, D. H. (1996). Acerca de la competencia comunicativa [About communicative competence]. (J.G. Bernal, Trad. 1996). *Forma y Función, 9,* 13–37. (Obra original publicada en 1972).

Jones, S., Myhill, D., & Bailey, T. (2012). Grammar for writing? An investigation of the effects of contextualized grammar teaching on students' writing. *Reading and Writing, 26*(8), 1241–1263. https://doi.org/10.1007/s11145-012-9416-1

Keppel, G., & Wickens, T. D. (2004). *Design and analysis: A resercher's handbook*. Pearson Prentice-Hall.

Lenz, R. (1912). *¿Para qué estudiamos gramática?* [Why do we study grammar?]. Conferencia impartida en la Universidad de Chile.

López Morales, H. (1992). La enseñanza de la gramática [The teaching of grammar]. *El Guiniguada, 3*, 363–373.

McNamara, D., Crossley, S., & McCarthy, P. (2010). Linguistic features of writing quality. *Written Communication, 27*, 57–86. https://doi.org/10.1177/0741088309351547

Medina, L. (2002). ¿Para qué aprender gramática en la escuela? Puentes entre la abstracción del análisis y la comunicación cotidiana [Why learn grammar at school? Bridges between the abstraction of analysis and everyday communication]. *Onomázein, 7*, 183–212.

Meneses, A., Hugo, E., Acevedo, D., & Ávila, N. (2017). *Gramática para profesores. Consideraciones metalingüísticas para el aprendizaje* [Grammar for teachers. Metalinguistic considerations for learning]. Ediciones UC.

Milian, M., & Camps, A. (2006). El razonamiento metalingüístico en el Marco de secuencias didácticas de gramática [Metalinguistic reasoning in the context of grammar teaching sequences]. In A. Camps (Ed.), *Diálogo e investigación en las aulas. Investigaciones en didáctica de la lengua* (pp. 25–53). Graó.

Ministerio de Educación de Chile (2012). *Bases curriculares primero a sexto básico* [Curricular bases first to sixth grade]. Decreto Supremo de Educación N°433 / 2012 y N°439/2012. Unidad de Currículum y Evaluación.

Myhill, D. (2011). Harnessing grammar: Weaving words and shaping texts. *Better: Evidence-Based Education, Winter*, 12–13.

Myhill, D., Jones, S., & Lines, H. (2018). Supporting less proficient writers through linguistically aware teaching. *Language and Education, 32*(4), 333–349. https://doi.org/10.1080/09500782.2018.1438468

Myhill, D., Jones, S., Lines, H., & Watson, A. (2012). Re-thinking grammar: The impact of embedded grammar teaching on students' writing and students' metalinguistic understanding. *Research Papers in Education, 27*(2), 139–166. https://doi.org/10.1080/02671522.2011.637640

Myhilll, D., Jones, S., Watson, A., & Lines, H. (2013). Playful explicitness with grammar: A pedagogy for writing. *Literacy, 47*(2), 103–111. https://doi.org/10.1111/j.1741-4369.2012.00674.x

Olinghouse, N., & Leaird, J. (2009). The relationship between measures of vocabulary and narrative writing quality in second- and fourth-grade students. *Reading and Writing, 22*, 545–565. https://doi.org/10.1007/s11145-008-9124-z

Olinghouse, N., & Wilson, J. (2013). The relationship between vocabulary and writing quality in three genres. *Reading and Writing, 26*, 45–65. https://doi.org/10.1007/s11145-012-9392-5

Olinghouse, N., Graham, S., & Gillespie, A. (2015). The relationship of discourse and topic knowledge to fifth graders' writing performance. *Journal of Educational Psychology, 107*(2), 391–406. https://doi.org/10.1037/a0037549

Otañi, I., & Gaspar, M. (2002). *Gramática, lectura y escritura: Aportes para redefinir el lugar de la gramática en la escuela* [Grammar, reading and writing: Contributions to redefine the place of grammar in school]. Ponencia en el Simposio Internacional Lectura y Escritura: nuevos desafíos, Cátedra UNESCO para la lectura y la escritura en América Latina, Mendoza.

Perfetti, C., & Hart, L. (2002). The lexical quality hypothesis. In L. Verhoeven, C. Elbro, & P. Reitsma (Eds.), *Precursors of functional literacy* (pp. 189–213) John Benjamins. https://doi.org/10.1075/swll.11.14per

Rodríguez, C. (2011). La reflexión sobre la lengua y la enseñanza de la gramática [Reflection on language and grammar teaching]. *Revista Textos. Didáctica de la Lengua y de la Literatura, 58*, 60–73.

Rodríguez, C. (2012). La enseñanza de la gramática: Las relaciones entre la reflexión y el uso lingüístico [The teaching of grammar: The relationships between reflection and linguistic use]. *Revista Iberoamericana de Educación, 59*, 87–118. https://doi.org/10.35362/rie590458

Soto, G. (1997). ¿Cómo enseñar gramática para la escritura? [How to teach grammar for writing?]. *Onomazéin, 2*, 387–398.

Sotomayor, C., Lucchini, G., Bedwell, P., Biedma, M., Hernández, C., & Molina, D. (2013). Producción escrita en la educación básica: análisis de narraciones de alumnos de escuelas municipales de Constitución, Empedrado y Tirúa [Written production in primary education: analysis of narratives of students from municipal schools in Constitución, Empedrado and Tirúa]. *Onomázein, 27*, 54–77.

Sotomayor, C., Gómez, G., Jéldrez, E., Bedwell, P., Domínguez, A. M., & Ávila, N. (2016). Evaluación analítica de la escritura de estudiantes de 4° año básico en Chile [Analytical eval-

uation of the writing of 4th grade students in Chile]. *Onomázein, 34*, 381–425. https://doi.org/10.7764/onomazein.34.21

Sotomayor, C., Coloma, C. J., Osorio, G., & Chaf, G. (2020). Vocabulario y gramática desde el enfoque comunicativo del área de Lenguaje en los documentos curriculares de Hispanoamérica [Vocabulary and grammar from the communicative approach in language in the curricular documents of Latin America]. *Revista Española de Lingüística Aplicada, 3*(1), 327–351.

Spinillo, A. G., & de Melo, K. L. R. (2018). O papel do conhecimento acerca da estrutura do texto na escrita de histórias por crianças [The role of knowledge about the structure of the text in the writing of stories by children]. *Educar em Revista, 34*(69), 277–292. https://doi.org/10.1590/0104-4060.54654

Tolchinsky, L. (2006). The emergence of writing. In C. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 83–95). The Guilford Press.

Torres Tovar, A. (2009). ¿Por qué una gramática textual en la enseñanza de la lengua y la literatura? [Why a textual grammar in the teaching of language and literature?]. *Enunciación, 1*(14), 72–79.

UNESCO. (2013). *Tercer Estudio regional Comparativo y Explicativo (TERCE). Análisis curricular* [Third comparative and explanatory regional study (TERCE). Curriculum analysis]. OREALC/UNESCO – LLECE.

UNESCO. (2015). *Informe de Resultados TERCE: Tercer Estudio regional Comparativo y Explicativo. Logros de aprendizaje* [TERCE results report: Third comparative and explanatory regional study. Learning achievements]. OREALC/UNESCO – LLECE.

Wells, D. (2008). Development of writing abilities in childhood. In C. Bazerman (Ed.), *Handbook of research on writing* (pp. 491–514). Taylor & Francis Group.

Part II
The Composition Processes of Writing Texts

Chapter 5
"Who Is Going to Read the Story That I Have Written?" The Role of the Audience in Textual Revision Made by Children

Alina Galvão Spinillo

5.1 Introduction

Verba volant, scripta manent is a Latin proverb translated as "spoken words fly, writings remain" attributed to Gaius Titus (39–81 BC) in a speech delivered in the Roman Senate. This proverb highlights the permanent nature of writing. However, it is possible to emphasize its provisional nature when considering the composition of a text that demands continuous recursive actions from the writer on the material being produced.

This provisional nature becomes evident when the textual revision, the topic of this chapter, is considered. Revising involves actions on the language that require the writer to consider the writing as an object of reflection and analysis, performing a metalinguistic activity, changing it as many times as necessary until being satisfied with the final product. These actions, which illustrate the dynamic nature of textual composition, make the revision a kind of quality control that allows to make the text more appropriate with respect to several aspects (Bereiter & Scardamalia, 1987; Galbraith, 1992; Hayes & Flower, 1980; Scardamalia & Bereiter, 1982). Changes made to the text for the purpose of improving it may be punctual or require a rewriting of the text in a broader way, until the writer is satisfied with the generated product (Allal, 2000; Allal & Chanquoy, 2004; Chanquoy, 1997, 2001; Galbraith & Torrance, 2004; García & Arias-Gundín, 2004; Pontecorvo & Morani, 1996). The multifaceted nature of revision is contemplated in the definition presented by Fitzgerald (1987, p. 484) in a classical work about research on revision in writing:

> Revision means making any changes at any point in the writing process. It involves identifying discrepancies between intended and instantiated text, deciding what could or should be changed in the text and how to make desired changes, and operating, that is, making the desired changes. Changes may or may not affect meaning of the text, and they may be major

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> or minor. Also, changes may be made in the writer's mind before being instantiated in written text, at the time text is first written, and/or after text is first written.

This definition guides the study and the discussion presented in this chapter and evidences, as stated by Flower et al. (1986), that revision is a component of text composition, a recursive activity present throughout the writing process. Fitzgerald (1987) comments that much of the research in the area has sought to investigate how much revision occurs, when it occurs, and what kinds of revisions are made. According to the author, these issues are somewhat affected by writers' expertise or age. For instance, beginning writers do not revise very much, and students of different ages do very little revision without peer group or teacher support. On the other hand, competent writers, such as high school students and beyond, make more changes than less competent or younger ones.

According to Hayes and Flower (1980) and Witte (1985), revision can take place at different moments of the writing production: (i) during planning, even before the actual writing takes place; (ii) during translation, integrated into the writing process; and (iii) posttranslation, on a relatively complete version of the text. Most studies have focused on revision products that appear on paper, although a few have investigated changes made in the writer's mind before pen meets paper. What is observed is that writers tend to make more changes during the composition of the text than after having completed a draft and that more competent writers do more revising while composing a first draft than do less competent ones. In the research reported in this chapter, the focus was on the revision at the time of posttranslation, when the writer puts themselves in the role of reader of their own text and identifies or not the need to make changes to what has been produced so far.

Considering what kinds of revisions are made, Fitzgerald (1987) comments that regardless of age and level of competence, the writer tends to make surface revisions, suggesting the view of revision as proofreading. On the other hand, older and more competent writers tend to often revise for meaning than younger and less competent ones.

There is no doubt that these instances – how much revision occurs, when revision occurs, and what kinds of revisions are made– are crucial. However, there is another equally relevant aspect that deserves to be investigated: to whom the text under revision is addressed. The study presented in this chapter deals specifically with the idea that the kinds of revisions made and the reasons that justify the changes made by the writer vary, depending on who the text is addressed to. However, before presenting the study and its results, relevant aspects of textual revision, as a constitutive instance of the writing process, are discussed.

5.2 Revision and the Writing Process

Text revision is a metacognitive activity par excellence, performed by the writer who becomes a reader of their own text through a recursive action (Camps & Milian, 2000; Castro & Correa, 2014). This activity is generated by the writer's feeling of

dissatisfaction with what has been produced and starts to focus on disagreements between the intended text and the actually produced text (Bereiter & Scardamalia, 1987; Hayes & Flower, 1980). In this perspective, Scardamalia and Bereiter (1982) developed the CDO model that deals with three cognitive actions performed during the revision process: compare, diagnose, and operate. The comparison assesses discrepancies between the intended text and the text actually produced to date. Once the discrepancy is identified, a diagnosis is made and, from there, relevant operations are triggered to make the necessary changes. Following this same line of thought, Butterfield et al. (1996) and Galbraith and Torrance (2004) claim that these actions become explicit and deliberate, thus sharing the perspective that revision is a metalinguistic activity.

Textual revision is a multifaceted process. Thus, different aspects of this phenomenon have been the object of investigation, some of which are discussed below.

5.2.1 Revision Operations and the Nature of the Changes Made by the Writer

What revision operations do we take when we make changes to texts we write? What is the nature of these changes? According to the literature in the area, revision occurs through addition, deletion, substitution, and rearrangement (reordering or restructuring) operations of some textual element, such as words, sentences, paragraphs, etc. (Dix, 2006; Faigley & Witte, 1981). When revising their text, the writer can insert or remove something, replace one textual element with another, or change the location of elements in the text. Substitution is the action most used by children, while rearrangement is very rare, being more often performed when the text is produced digitally.

Changes can be of form (occur in the surface of the text) and of meaning (alter the content). According to Gelderen and Oostdam (2004), changes of form seek to meet the language's rules (spelling, syntax) and guarantee the readability of the text (handwriting), while those of meaning have a semantic nature, seeking to guarantee the coherence, clarity, and precision of the information. Both types of changes maintain a relationship of codependency, since much of what one wants to communicate depends on how the information is presented. For these authors, when revising a text, the individual seeks to meet the following points: (i) if the intended meaning is satisfactorily expressed through the adopted linguistic forms; (ii) if the text attends the criteria related to coherence, avoiding inconsistencies between segments; and (iii) if the meanings fit the global representation of the text (e.g., its structure) and if they are coherent with extralinguistic knowledge.

Beginning writers tend to make changes of form more often than experienced writers and more often than changes of meaning; this is observed both when revising their own text and when revising texts written by someone else. However, it is important to know that other factors, besides age and expertise, can influence the

use of revision operations (addition, deletion, substitution, and rearrangement) and the nature of the changes made (form and meaning), such as for example, the role played by the audience to whom the text is intended. This aspect is addressed in the research described in this chapter.

5.2.2 *Revision and Moments of Text Writing*

At what moment of writing do we make changes to the texts we write? As mentioned, revision can occur at different moments of writing (Allal & Chanquoy, 2004; Limpo et al., 2014): in planning, in translating (transcription or generating process), and in posttranslation (reviewing). Planning, of a prelinguistic nature, consists of generating ideas and selecting information that may be part of the text to be written and thinking about its organization, its purpose, and about the reader to whom it is addressed. At this point, revision takes place in the writer's mind, when they alter their intentions about the text even before the actual writing takes place. One of the ways to investigate the revision at the time of planning is through collaborative writing, when writers interact, deciding and changing aspects related to the form and content to be materialized in the text to be written. Many of these proposals do not even become changes that will be effectively inserted into the text.

Translating occurs at the linguistic level, when the writer makes linguistic choices which are incorporated to the emergent text. When revising passages that have just been produced, the writer must decide which words and syntactic structures best convey the intended meaning. These changes affect what has just been partially written, being called online revision. According to Singer and Bashir (2004), this moment turns the ideas generated in the planning into language, so that they can be expressed in writing, that is, the verbal mental representations are encoded into written symbols. One of the ways to investigate the revision at the time of translating is through the think-aloud method, in which the writer explains and comments on the changes they make to the emerging text (López et al., 2019).

The posttranslation also occurs at the linguistic level, when the writer has already produced a complete or almost complete version of the text. In the revision that takes place on this version, also called deferred revision, the writer assumes the role of reader of their own text, working with the aim of improving the quality of the final product. Most investigations are about deferred revision and have revealed that many of the changes made at this point are of form more than of meaning.

Several studies were conducted with the objective of examining at which of these moments the revision would be more productive for the final quality of the text. Bergh and Rijlaarsdam (1999), for example, observed that, in translation, the activity of rereading already written parts of the emerging text had a positive effect on the generation of ideas articulated with what had been previously written and with what would come next, reflecting on the quality of the final text produced. Chanquoy (2001), in turn, asked children to revise their texts in three different situations: one in which they were not given any instruction on when to revise the text, another in

which they were asked to revise the text at the time of translation, and another in which they were asked to revise the text at the time of posttranslation. It was found that the changes did not differ when made at the time of translation and posttranslation, either in terms of the frequency with which they occurred or in terms of the types of changes. The conclusion was that the revision moment does not influence the quality of the text produced, since the revision upon translation is as effective as the one carried out at the time of posttranslation.

Spinillo and Lucena (2019) investigated revision at the time of planning and at the time of posttranslation in pairs of children who were asked to collaboratively write a text. Participants were elementary school third graders aged 8–9 years. The text to be written was a reproduction of a story read by the examiner and accompanied by the participants. When pauses were made, questions were asked to stimulate the participants to explicitly mention what they intended to write at the time of planning ("Why did you stop writing? What are you thinking now? What do you intend to write next?"). Once the reproduction was complete, that is, at the time of posttranslation, the dyads were asked to read the text and make the changes they wanted for improvements.

The unit of analysis during planning was defined in terms of episodes, consisting of pauses made by the children to discuss and decide how they should write a particular passage of the text in progress. It was observed that the vast majority of the episodes involved changes that were effectively incorporated into the emerging text. The data showed that the operations of revision of addition, deletion, substitution, and rearrangement occurred at the time of planning, mainly substitution and addition of information, with few changes of form. According to the authors (Spinillo & Lucena, 2019), this occurred because, in planning, the proposed changes occur within the scope of ideas, when the interlocutors decide what should or should not be included in the text. Moreover, as in this study the text to be written was a reproduction, this probably generated the children's intention to be reliable to the content conveyed in the original text.

Upon posttranslation, the vast majority of changes were in terms of form, and the operations performed on the final version were to replace one word with another, so the concern of the dyads was to write the words correctly, obeying the orthographic rules. This concern was rarely observed at the time of planning, being more frequent at the time of posttranslation because, on this occasion, the spelling mistakes were effectively materialized in the text, which did not occur at the time of planning. The same revision operations in planning also occurred in posttranslation, with substitution being the most frequent on both occasions. In posttranslation, the changes focused more on the words, while in the planning they occurred more on the sentences and were more of meaning aiming to guarantee coherence, clarity, and fidelity to the text that served as the basis for the reproduction.

In the research reported below, revision is investigated at the time of posttranslation. At this time, the writer is informed that the text they produced will be read by an interlocutor with a certain profile, in this case, a teacher or a child from another school.

5.2.3 Reasons for Making Changes

Why do we make changes to the texts we write? A generic, but not very enlightening, answer is that we revise a text to improve it, in order to meet our expectations. It is important to note that revision is an easy process to observe because of the physical operations and the visible traces in textual output. If, on the one hand, it is easy to identify the action performed by the writer when revising their text (deletion, addition, substitution, rearrangement) and the altered linguistic unit (word, sentence, paragraph etc.), on the other hand, it is difficult to know the reasons they had in mind when making such changes. There seem to be two ways of knowing the reasons that specifically lead the writer to make changes to their texts. One of them is to infer the reason for a given change, observing the action performed by the writer on some aspect of the text. For instance, it is possible to assume that by adding a letter to the end of a verb or a noun, the objective was to make a grammatical correction; when replacing a letter in a word, the writer aimed to make a spelling correction; and by substituting a word for another of the same meaning, the writer aimed to avoid repetition of that word throughout the text. However, the same revision action may have different objectives, for example, when replacing one word with another, the reader may have wanted to avoid repeating that word or may have tried to be more accurate as to the information they wanted to communicate. Another way, which we believe to be more effective, is to ask the writer directly why they made a given change. In this case, the writer would verbally explain the reasons for making that change.

Although relevant, little is known about the children's reasons for making changes to their texts. The studies conducted by Dix (2006) and Spinillo (2015a) are rare examples found in the literature on this topic.

Dix (2006), from a qualitative research, explored the revision practices made by nine fourth, fifth, and sixth graders, who were identified as fluent writers by their teachers. After writing texts in the school setting, participants were asked to comment on what changes they had made and explain why they had made them. The changes were identified and categorized on the basis of the taxonomy proposed by Faigley and Witte (1981), involving the following classification: (i) surface changes that preserve the meaning of the text (spelling, punctuation, grammar) that aimed at improving text accuracy and (ii) text-based changes affecting the meaning of the text locally (microstructure changes) or globally (macrostructure changes). As proposed in the taxonomy adopted, these changes were made through revision operations of addition, deletion, substitution, and rearrangement. From a series of passages extracted from the interviews, the author illustrated and discussed the revision practices used by the students. The main result was that elementary school children are active participants in the writing process, since they are able to revise their texts in a variety of ways that are not limited to surface changes and, also, to explain why they made changes.

It is important to note that the results obtained by Dix (2006) were about fluent writers and a limited number of participants, so that caution is needed when making generalizations. However, an aspect that deserves to be highlighted is the fact that the study raises the possibility to explore the reasons why children make changes in their texts by asking them directly to talk about this. Despite this, the author did not conduct an analysis that specifically addressed the reasons adopted by writers when revising their texts, which was done by Spinillo (2015a).

The research conducted by Spinillo (2015a) aimed to investigate if third and fifth graders were able to justify the changes they made when revising their texts (reproductions of a story). The justifications given were classified into different types, namely: to avoid repetition of words, to guarantee the legibility of spelling, to obey the orthographic and grammatical rules, to guarantee the understanding of the text, to be faithful to the original text and to be coherent with reality (world knowledge). This typology was adopted in the analysis of data obtained in the investigation to be presented later in this chapter, when, then, each of the justifications will be described and exemplified.

Data obtained by Spinillo (2015a) revealed that children are able to justify the changes they make in their texts. Differences between school grades were identified: changes made by the third graders were justified by the need to write correctly, obeying the spelling and grammar rules, while changes made by the fifth graders sought to obey both the orthographic and grammatical rules and the need to be faithful to the original text. The conclusion was that with the increase in the writer's competence, represented here by the advancement in schooling, children start to be concerned not only with issues of form, such as readability and obedience to orthographic and grammatical rules, but also with semantic issues in an attempt to give clarity and bring the information in the produced text closer to that in the original. This study brought important contributions: (i) corroborated the findings of Dix (2006), revealing that children are able to explain the reasons that guide the changes they make in their texts; (ii) identified those reasons; and (iii) evidenced that these reasons are influenced by the writer's competence. Nevertheless, it is interesting to examine what factors other than competence could influence children's reasons for making changes to their texts. For example, would the reasons vary depending on the interlocutor to whom the text is addressed? One of the aspects examined in the study described below is exactly about this possibility.

5.2.4 The Role of the Interlocutor

In writing texts, the interlocutor can be physically present in the production situation – as a partner in the composition of a text, or be present in the writer's mind – as a potential reader, an audience for whom the text is intended. Although the focus of this chapter is on the interlocutor as an audience, these two facets are discussed below.

5.2.4.1 The Interlocutor as a Partner in Writing Texts

In most studies, the interlocutor is physically present, playing the role of partner in the context of collaborative writing (Allal et al., 2005; Spinillo, 2015b; Spinillo & Lucena, 2019) and in teaching situations carried out in the school context, in which the interlocutor can be a classmate or the child's teacher (Allal et al., 2005; Boscolo & Ascorti, 2004; Calil & Myhill, 2020; Rouiller, 2004).

In the school context, Allal et al. (2005) conducted a research with elementary school students to examine the relationship between collaborative writing and characteristics of the text produced. Collective interactions involving the whole classroom and interactions in pairs of students were analyzed. In the collective revision, in which participants argued and made suggestions about the revision made by other students, the number of changes made to the text was greater than in the revision made by dyads of students. It was also observed that the individual revision, followed by the revision in pairs, had positive effects on the quality of the final text produced.

The relationships between collaborative revision and writing an understandable text were explored by Boscolo and Ascorti (2004). The participants, elementary school students, formed pairs in which one of them wrote a text that was evaluated by the partner as to its comprehensibility. Together they decided on the changes that should be made to improve the text. Two types of interaction were identified in relation to the evaluating partner: a general request for reformulation and specific indications of changes to be made. Proposing suggestions was a type of interaction observed only between the pairs of students who attended more advanced school grades, that is, who had a greater mastery of writing.

Rouiller (2004) examined the impact of peer interaction on revision in sixth graders, comparing individual and dyadic conditions. One of the main results was that the dyadic condition involved a wide variety of interaction styles and caused more changes in the text, especially with respect to spelling and text organization than the individual condition. The author comments that the collaborative review was characterized as a reconceptualization, whereas individual revision tended to focus on error correction. However, the positive impact of peer interaction on revision did not occur in all circumstances, since many dyads were not very productive in terms of the number of changes made to the text.

Spinillo (2015b) investigated how children revised texts written by other children in two situations: individually and in collaboration with another child. Participants were asked to revise a text containing a number of flaws, such as syntactic and spelling mistakes and poor readability (legibility compromised in some passages and lack of information). The text presented in both situations was the same and had been written by a child who was not a participant in the research. In the individual revision, the following instruction was given: "This is a text written by a student from another school. It is a reproduction of a story he read. This text has some problems. Please read it carefully and make any changes you feel are necessary to improve it." Both the original story and the reproduction to be revised were printed and made available, as well as pencils, erasers, and sheets of paper.

The same procedure was adopted in the collaborative situation, being said that the revision should be done jointly. In both situations, children used editing strategies rather than rewriting strategies. It was also found that in the individual revision, children focused on the formal aspects of the text, while in the collaborative review, they tended to consider both the formal aspects of the text and its content. An interesting fact was that the collaborative revision led participants to make semantic changes in an attempt to bring the text under revision closer to the original story that served as the basis for reproduction. The conclusion was that the interaction which characterizes the collaborative context favors the idea that the text can be subjected to multiple transformations during revision.

Calil and Myhill (2020) analyzed sequences of narrative textual production from the same dyad of 6- and 7-year-olders in a naturalistic classroom environment. The focus of the study was on the erasure as a way to understanding the nature of revision during writing. According to the authors, written erasures are visible evidence of metalinguistic operations by children. Using both video and audio recordings to capture the dialogue between the children in this collaborative writing context, it was observed that writers’ metalinguistic thinking was characterized by graphic-spatial concerning the visual appearance of their writing on the page and that comments related to meaning were rare.

5.2.4.2 The Interlocutor as an Audience in Writing Texts

As previously mentioned, there are studies in which the interlocutor is the possible reader, not physically present in the situation of text production, as is the case of research carried out by Frank (1992), who investigated fifth graders who produced written newspaper advertisements differently for two audiences. College students are also reader-sensitive, as Traxler and Gernsbacher (1993) showed, once participants modified their representation of the readers’ perspective when writing and revising descriptions of geometric figures in order to make their writing in accordance with their readers’ informational needs. Thus, the manipulation of audience emerges as a relevant methodological resource to examine the role of the interlocutor in situations that are not characterized as collaborative writing, whether in research with children or in research with adults.

Holliway and McCutchen (2004) investigated how fifth and ninth graders benefited from perspective-taking experiences as they wrote and revised texts involving the descriptions of geometric figures. In this study, the authors adapted the referential representation task used by Traxler and Gernsbacher (1993), comparing three revision conditions: feedback condition, rating-other condition, and reading-as-a-reader condition. Participants in both grades showed an expressive improvement under the reading-as-a-reader condition, because under this situation they had the opportunity to accurately revise their texts in order to meet their readers’ informational needs.

Midgette et al. (2008) examined the effect of content goals and audience awareness goals during revising on argumentative texts written by fifth and eighth

graders. Three different goal conditions were compared: a general goal, a goal to improve content, and a goal to improve content plus audience awareness goal. In each condition, participants were asked to write a persuasive essay ("Should young people be allowed to watch any kind of shows or movies on TV? What do you think?") and then asked to write a revised draft of their text. Texts were analyzed according to the presence of discourse elements relevant to content and audience and for overall persuasiveness. The main results showed that students in the content plus audience awareness goal condition were more likely to consider and rebut opposing perspectives in their texts than those in the other conditions. The conclusion was that in the revision process, it is not enough to consider the content of the given text but also to consider the intended audience. Thus, the combination of content and potential audience seems to have a positive impact on performance on a persuasive writing task. The findings of this investigation corroborate Holliway and McCutchen (2004).

Taken together, the results of these studies show that both in expository and argumentative texts, college students and fifth and ninth graders demonstrate a sense of audience, so that they make changes in their texts to meet the informational needs of the potential reader.

Audience manipulation was also adopted in the study described below as a methodological paradigm for investigating children younger than those who participated in the aforementioned studies. Participants, aged 8 years old, were divided into two groups: one group was asked to revise their text that would be read by a teacher and the other group was asked to revise their text that would be read by a child. Subsequently, the second manipulation of the audience was carried out, in which the participants were asked if they would make any changes to their already revised texts if the interlocutor was another: a child, for those who had initially revised their texts for a teacher, and a teacher, for those who had initially revised their texts for a child. Would the participants have a sense of audience so that the changes made by them would vary depending on the possible reader of their texts?

5.3 "Who Is Going to Read the Story That I Have Written?" A Study on the Role of the Audience in Textual Revision Made by Children

As mentioned, most research carried out with children on the role of the interlocutor is about collaborative writing, while audience manipulation has been adopted more frequently in studies with adolescents and adults. It is relevant to use this methodological resource – audience manipulation – with children in the early elementary school, as is the case of the present study. Another characteristic of this investigation is that it deals specifically with the textual revision at the time of posttranslation, that is, after the text has been written. Thus, the objective of the research was to examine if young writers show a sense of audience and if this has an impact on the

way they revise their texts. Three aspects were considered in data analysis: the revision operations made by children (addition, deletion, substitution, and rearrangement), the nature of changes (form and meaning), and the reasons why they made changes in the final version of their texts (Spinillo, 2015a).

Forty Brazilian children, aged 8 years old, attending the third grade of elementary school were interviewed in three sessions. In the first session, collective, in the classroom during school time, the examiner read aloud a story, while the children followed the reading of the text that was printed on a sheet of paper. After reading, the printed text was collected, and the children were asked to individually reproduce the story in writing. Pencil and paper were made available. Once the activity was completed, the reproduced text was collected.

In the second session, participants were equally divided, randomly, into two groups according to the audience, that is, the reader to whom the text would be addressed. Participants in Group 1 (child as the reader) were given the following instruction: “Could you please, revise the text you wrote in order to make it better? This will be read by a child from another school who likes reading stories. This child has never heard this story before.” Children in Group 2 (teacher as the reader) were given the following instruction: “Could you please, revise the text you wrote in order to make it better? This will be read by a teacher from another school who wants to know if children in your school know how to write stories. This teacher has never heard this story before.” The mean age of participants in Group 1 (child as the reader) was 8 years and 7 m, and the mean age of participants in Group 2 (teacher as the reader) was 8 years and 8 m. In both groups, the instructions were generic, mentioning that the text should be improved without suggesting any type of change in any part of the text.

In the second moment, after the revision was completed, participants were individually asked to justify each of the changes they had made to their text, answering the following key question: “Can you tell me why did you make this change here?” Additional questions to clarify and deepen the children’s answers were made. This procedure was the same used by Spinillo (2015a).

In the third moment, at the end of the second session, each participant in Group 1 (child as the reader) was asked: “If your text were to be read by a teacher instead of a child, would you make the same changes that you have made or would you make different ones? Why?” In turn, participants of Group 2 (teacher as the reader) were asked: “If your text were to be read by a child instead of a teacher, would you make the same changes that you have made or would you make different ones? Why?” Respondents’ answers were audio recorded and later transcribed for analysis. This third moment of the second session involved an inversion of potential readers, being, in reality, the second manipulation of the audience. This aimed to examine, in detail, the sense of audience of participants, testing whether or not they would make other changes to their text if the reader to whom the text would be addressed was another. Data analysis focused on the number of children who stated that they would and would not make changes and on the justifications given for doing so.

Data were analyzed from two perspectives: one related to the characteristics of the changes made, involving the nature of the changes (form and meaning) and the revision operations performed (addition, deletion, substitution and rearrangement), and another concerning the reasons children adopted for making the changes. The results referring to these two perspectives are presented and discussed below according to the groups of participants, that is, according to the reader to whom the text was addressed.

5.3.1 Characteristics of the Changes Made

The revision operations and the nature of the changes made are presented in Tables 5.1 and 5.2, respectively.

As shown in Table 5.1, rearrangement operations were not carried out. According to the Wilcoxon test, in Group 1 (child as the reader), the addition operation was significantly more common than the others ($p < 0.01$), while in Group 2 (teacher as the reader), the most used operation was the substitution ($p < 0.01$). In both groups, deletion was rarely used (Group 1: 7.5%; Group 2: 4.6%). Comparisons between groups were explored using the Mann-Whitney U test, which identified that addition was significantly more used by children in Group 1 ($p < 0.01$) and that substitution was more frequently observed among children in Group 2 ($p < 0.01$).

The changes, according to their nature, were classified into the following: (i) graphic, related to the format of the letters; (ii) linguistic rules, relating to the correct writing of words and sentences (orthography and syntax); and (iii) semantics, relating to the meaning of words and phrases. The first two types are characterized as changes in form and the third as changes in meaning, whose distribution is presented in Table 5.2.

The Wilcoxon test revealed that, in Group 1 (child as the reader), semantic changes were significantly more frequent than the others ($p < 0.02$) and that graphic and linguistic changes did not statistically differ from each other. Among the children in Group 2 (teacher as the reader), changes in linguistic rules were significantly more frequent than the others ($p < 0.02$), which did not differ from each other. Thus, the pattern of results is not the same in both groups: while the changes in Group 1

Table 5.1 Percentage of revision operations in each group

Revision operations	Group 1 (Child as the reader) ($n = 286$)	Group 2 (Teacher as the reader) ($n = 318$)
Addition	65	26.4
Deletion	7.5	4.6
Substitution	27.5	69
Rearrangement	0	0

Table 5.2 Percentage of types of changes in each group

Types of changes	Group 1 (Child as the reader) ($n = 286$)	Group 2 (Teacher as the reader) ($n = 318$)
Graphic (handwriting)	25	20
Linguistic rules (orthography, syntax)	20	56.2
Semantic (meaning)	55	23.8

were characterized as semantic (55%), in Group 2, they were characterized as related to linguistic rules (56.2%).

The Mann-Whitney U test detected that linguistic rules were significantly more observed among children in Group 2 (teacher as the reader) than among those in Group 1 (child as the reader) ($p < 0.01$), while semantic changes occurred more among those in Group 1 than among those in Group 2 ($p < 0.01$). Significant differences were not found between the groups regarding graphic changes.

In general, it is observed that the potential reader (the audience) has an impact on the characteristics of changes made by children. Participants whose texts are addressed to the teacher (Group 2) made changes in form, specifically related to fulfill linguistic rules (orthographic and syntactical) through substitution operations. On the other hand, participants whose texts are addressed to a child (Group 1) made changes in meaning marked by the addition operation. It seems that Group 1 participants wanted to write more, adding information, while Group 2 participants wanted to write correctly, making substitutions. The reasons for such changes are understood from the data described and discussed in the next section.

5.3.2 *Reasons for Making Changes*

As mentioned, the participants' justifications were analyzed according to the classification proposed by Spinillo (2015a), as described and exemplified below with passages extracted from the interview carried out in the second session.[1]

Type 1 (No explanation/vague explanation): The child claims not to be able to explain the reason for having made that change or provides a vague response.

Example 1: The word *ele* (he) is deleted.
I: Why did you delete this word?
C: Because that's better.
I: Explain to me why do you think it's better this way?
C: Because it is. I think it is better.

[1] In the examples presented, the interviewer's speech is preceded by the letter *I* and that of the children by the letter *C*.

Type 2 (To avoid repetition): The change is made to avoid the frequent use of the same word, expression, or part of a sentence.

Example 2: The word *gato* (cat) is deleted; it appears twice in the same sentence.
I: Why did you delete this word out?
C: It's better not to repeat it again, again.

Example 3: The word *o dono* (the owner) is replaced with the word *ele* (he).
I: Why did you change one word for another?
C: Because then it gets better.
I: Better how?
C: The person who is going to read the text, reads the word *dono* (owner) all the time.

Type 3 (To ensure legibility): Graphic alteration in which the revision operation focuses on the handwriting of a word to make it readable. Changes of this kind may involve rewriting the entire word or just the outline of some of its letters.

Example 4: In the word *família* (family), the outline of the last letter is made sharper.
I: What did you do here? Why did you decide to do so?
C: The letter *a* looked like an *o*. I fixed it so the reader could read it.

Example 5: The word *gato* (cat) is crossed out and rewritten.
I: Why did you do that? Why did you write the same word again?
C: It was a very ugly handwriting. It was better to write it all over again, in neat handwriting.

Type 4 (To write correctly): The change is made to comply with spelling and syntactic rules.

Example 6: In the word *espelhu* (mirror),[2] the letter *u* is replaced with the letter *o*.
I: Why did you change this letter?
C: Because it was wrong with *u*. It has to be with *o*. My teacher always says that. Then, I forgot, but then I corrected it.

Example 7: The letter *s* is added to the end of the word *passarinho* (bird).
I: Why did you put the *s* here?
C: Because in the story, it was *os passarinhos*, in the plural, and not *os passarinho*. Both words must be in the plural. One must write correctly.

[2] The correct spelling is *espelho*.

Type 5 (To be clear): The change is made to ensure that the text is clear enough to be understood, avoiding inaccuracies. Changes classified here refer to intratextual aspects and relationships.

Example 8: The word *fazia* (did) is added.
I: Why did you put this word here?
C: It was missing. I had forgotten to put it on. If I left it without putting it there, I couldn't understand the sentence. It was confusing.

Example 9: The word *para* (for) is added.
I: Why did you put that word here?
C: There was a word missing. No one could understand it.

Type 6 (To be in agreement with the original story and/or previous knowledge): The change is made to remain reliable to the original text or to be consistent with previous knowledge. Changes classified here refer to extra textual aspects, that is, the child compares the reproduced text with the original text and/or associates it with their knowledge of the world.

Example 10 The word *tigre* (tiger) is replaced with the word *onça* (jaguar).
I: Why did you replace *tiger* with *jaguar*?
C: Because the story had a jaguar and not a tiger. I have made a mistake. The two animals are similar. I got confused.

Example 11: The expression *o espelho era de aumentar* (the magnifying mirror) is added.
I: Why did you add this part here?
C: I forgot to say that the mirror was magnifying, that it enlarged the size of the person's face. And that was one very important thing that was missing. It said so in the story you read.

Example 12: The word *casinha* (little house) is replaced with *gaiola* (cage).
I: Why did you replace that word with that other one?
C: Little house is odd.
I: Odd? What do you mean?
C: Have you ever seen birds living in a little house? They live in cages.

The reasons children gave were analyzed by two independent judges, with 94% agreement. Disagreement cases were judged by a third judge, also independent, and the final classification was defined by the majority. The distribution of these types within each group of participants is presented in Table 5.3.

The Wilcoxon test revealed that in Group 1 (child as the reader), the reasons were equally concentrated on Type 5 (to be clear and precise: 36%) and on Type 6 (to be in agreement with the original story and/or previous knowledge: 30%), since they were more commonly found than the other types ($p < 0.01$), whose percentages did

Table 5.3 Percentage of types of reasons in each group

Types of reason	Group 1 (Child as the reader) ($n = 286$)	Group 2 (Teacher as the reader) ($n = 318$)
Type 1 (No explanation)	2.8	2.2
Type 2 (To ensure legibility)	8.4	12.9
Type 3 (To avoid repetition)	8.4	9.4
Type 4 (To write correctly)	14.3	35.2
Type 5 (To be clear)	36	21.4
Type 6 (To be in agreement with the original story or previous knowledge)	30	18.9

not significantly differ. In Group 2 (teacher as the reader), the reasons focused on Type 4 (to write correctly: 35.3%), which was significantly more frequent than the other types ($p < 0.02$). As shown by the percentages in Table 5.3, in Group 1, the reasons were of meaning, as the children showed concern to write clearly, according to the original text and their knowledge of the world. On the other hand, in Group 2, children were especially concerned about writing correctly.

According to Mann-Whitney U test, there were significant differences between groups in relation to the following: Type 4 (to write correctly), which was more observed among children in Group 2 ($p < 0.01$), and Type 5 (to be clear) and Type 6 (to be in agreement with the original story and previous knowledge), which were more frequent in Group 1 ($p < 0.05$ and $p < 0.02$, respectively). No significant differences were found between groups in relation to the other types. In general, the reasons given by children in Group 1 (child as the reader) were characterized as of meaning, while those given by children in Group 2 (teacher as the reader) were of form. These results reiterate those obtained in the previous analysis regarding the nature of the changes made by the participants, also demonstrating that they are able to justify the changes they make to their texts when revising them.

5.3.3 Change of Reader

Data discussed below refer to the third moment of the second session, when the participant was asked if they would make any other changes if their text was addressed to a different reader. Regardless of the response given, the child was asked to justify the reason for making or not making other changes to their text.

It was observed that 90% of the participants in Group 1 (child as the reader) and 75% in Group 2 (teacher as the reader) responded that they would make other changes, if the text were to be read by another reader (teacher or child, depending on the group of participants). These percentages indicate that, in fact, they had a sense of audience, being able to redirect the nature of the changes made due to the change of reader.

In Table 5.4 and in Table 5.5, there are passages from the interviews, showing the justifications of participants who said that they would not make changes and that they would make changes in their texts if there was a change of reader.

It was found that 94.4% of the participants in Group 1 (children as the reader) had said they would make changes, if the reader were now a teacher, reported that they would make changes of form (handwriting, punctuation, syntactic and spelling rules). On the other hand, 80% of the participants in Group 2 (teacher as the reader) had said they would make changes if the reader were now a child, reported that they would make changes of meaning.

In general, these findings suggest that regardless of the first or second manipulation of the audience: if the reader was a child, the revision was marked by changes of meaning; and if the reader was a teacher, the revision was marked by changes of form. This indicates that when children redefine the audience, they change the nature of the changes they make to their texts; in other words, they revise according to the reader’s informational needs. For example, revising the text for the teacher requires making it spelled correctly, while revising the text for a child requires making it more appropriate. Thus, dissatisfaction with the own text is not limited to correction but to the adequacy of the text for a reader of a given profile. This can be illustrated by examples in Table 5.5, where it is evident that, in general, revising the text that will be read by a teacher is necessary to write correctly because “She would want to see everything correctly written,” but it is not necessary to write in legible handwriting because “The teachers know how to read the students’ handwriting and

Table 5.4 Examples of justifications given by the children who said that they would not change anything in their texts even if there was a change of reader

Interviewer: And if, now, instead of a child, *your text were to be read by a teacher*, would you make the same changes that you have made before or would you make different ones?	Interviewer: And if, now, instead of a teacher, *your text were to be read by a child*, would you make the same changes that you have made before or would you make different ones?
C: I would not change anything. I: Why wouldn’t you change? C: Because that’s good enough.	C: It would be the same, no need to change. I: Why not? C: I paid close attention and improved all the parts that weren’t good.
C: If there was everything that was said in the story that was read, then I wouldn’t change anything. I: Why not? C: Because everything was already there. I didn’t need to complete anything.	C: No need to change. I had already corrected everything.

Table 5.5 Examples of justifications given by children who said they would make changes in their texts if the reader changed

Interviewer: And if, now, instead of a child, *your text were to be read by a teacher*, would you make the same changes that you have made before or would you make different ones?	Interviewer: And if, now, instead of a teacher, *your text were to be read by a child*, would you make the same changes that you have made before or would you make different ones?
Child: I would make different ones. I: What changes would you make? C: Well, I would make my writing more beautiful. I would also see if I hadn't made any mistakes, like when using the plural of the words. I: Why? C: So that the teacher can see that I can write correctly.	C: I could add more words so that the boy could understand the story better. Because it could be a small child, you see? Then I'd have to explain the story really well. I: And why wouldn't you do that if a teacher was going to read your story? C: Because the teacher is a grown up and you don't need to explain a story to grown-ups. They know everything.
C: Then, I would correct everything to not have a wrong word, and wrong punctuation. I'm not good at punctuation. I: But why would you do that? C: Because a teacher would be reading my text. She would want to see everything right.	C: I think I had to write a really neat handwriting, with well-rounded handwriting. I: Why? C: So, the little child can read. If the letters are not neat, they won't understand. I: And why didn't you think about that when your text was going to be read by a teacher? C: It was not necessary. The teachers know how to read the students' handwriting and then they read any handwriting, even when it's not neat.

then they read any handwriting, even when it's not neat." On the other hand, revising a text that will be read by a child is necessary to add more information "...to explain the story really well" and make a readable handwriting because "If the letters are not neat, they won't understand."

These examples clearly illustrate the child's concern to meet the informational needs of potential readers, making adjustments that meet the profile of each. The concern with neat handwriting, correct spelling, and correct grammar cannot absolutely be considered lower-order aspects of their texts, as Rijlaarsdam et al. (2004) comment. In fact, according to the evidenced in this chapter, the importance attributed to these aspects by the writer seems to depend on the audience. Thus, when the potential reader of the text is a child, neat handwriting may be relevant, while correct spelling and correct grammar are not. On the other hand, when the potential reader is a teacher, these last two aspects become fundamental. It seems that the writer decides on whether a text is adequate or not from various dimensions, including the audience.

5.4 General Discussion

The main conclusion from this study is that in addition to the crucial aspects mentioned by Fritzgerald (1987) – how much revision occurs, when revision occurs and what kinds of revisions are made, the reader to whom the text is addressed also appears as an equally relevant instance. The sense of audience demonstrated by the children who participated in this research shows that the reader to whom the written text is intended has a fundamental role in the revision operations (addition, deletion, substitution, and rearrangement), in the nature of the changes (form and meaning), and in the reasons justifying the changes made.

The sense of audience was observed both on the occasion of the revision carried out in the first session and on the subsequent occasion when participants were asked to consider the possibility of another reader with a different profile from the first one. The responses and justifications offered revealed that young children are able to redirect the changes made to meet the needs and expectations of the reader for whom the text is intended. To expand our knowledge on this topic, future research could examine the sense of audience in children with other profiles, for example, autistic children who tend to have limitations in relation to their interaction and perception of the other. Could this limitation have an impact on the ability to adopt the audience perspective when revising their texts?

It is worth mentioning the fact that the sense of audience expresses a cognitive acquisition of great relevance recognized for a long time by several scholars, which is role-taking (Flavell et al., 1968). With regard specifically to the development of writing, this acquisition enables the individual to put themselves in the place of another and seek to meet the informational needs of the reader to whom the text is addressed.

The relevance of the sense of audience remains to date, even with the technological advances that have characterized the new contexts of writing. Rijlaarsdam et al. (2012) make a broad and challenging discussion about writing in current times, emphasizing the theoretical and applied implications generated by technology. According to the authors, technology changes the concept of text and affects production systems: a text starts to involve more than a linear sequence of words and sentences, and writing is no longer produced primarily by handwriting. Despite the transformations generated by technology, the sense of audience continues to play a fundamental role in writing texts.

The second conclusion, equally relevant, is that children are able to explain the reasons that served as the basis for the changes they make in their texts, corroborating what was observed by Dix (2006) and Spinillo (2015a). Underlying these reasons are the points mentioned by Gelderen and Oostdam (2004) about what the writer seeks to address when revising their texts: the relations between form and meaning that permeate the relations between the intended text and the text actually written.

In terms of future research, both a sense of the audience and the reasons for making changes to the text are aspects that deserve to be investigated in relation to other

genres, such as argumentative texts. In view of this, it would be interesting to know what changes the writer would make (and the reasons for them) if the reader were someone who shared or not the same point of view regarding a certain topic dealt with in an argumentative text. As highlighted in previous studies on persuasive texts, it is especially important considering the perspective of the audience in order to present convincing arguments (Midgette et al., 2008).

If revising is a recursive action that requires the writer to take the writing as an object of reflection and analysis, performing a metalinguistic activity on the text (Butterfield et al., 1996; Camps & Milian, 2000; Galbraith & Torrance, 2004); in turn, explaining the reasons that led them to change something in their text is a metacognitive activity in which their own thinking[3] is the object of reflection. In other words, when asked to explain the reasons for the changes made, children become aware of their way of reasoning. This ability is an important cognitive acquisition present in other linguistic knowledge, such as the inferential process involved in text comprehension, as observed in studies in which children were asked to explain the bases of their inferences during text comprehension (Spinillo, 2008, 2011, 2022).

5.5 Final Remarks

To conclude, some points are addressed in this final section of the chapter. One refers to the social nature of writing, another to methodological issues in research on textual revision with children, and another to educational implications.

Writing is both cognitive and social process, so that these two instances should be treated as complementary rather than competing. Besides involving several general (attention, memory, etc.) and specific cognitive processes, such as those associated with text revision (compare, diagnose, and operate), writing has communicative purposes. Based on data obtained in the research described above, it is possible to illustrate the social nature of writing through the role of the audience in the textual revision, in this case, the reader to whom the text was addressed.

Graham (2018), when presenting the new version of the writer(s)-within-community model, places a great emphasis on communication, highlighting the importance of the interlocutor and the role of reader in writing texts. For him, authors always write to someone (just to themselves or imagined readers) so that readers serve as an audience for the resulting product. When taking the interlocutor into account, and thus to meet the reader's perspective, it is necessary to consider what one wants to write (the intended text) and the text that was actually written so far. Coordinating these aspects – communicative intent, written text, and the reader's perspective – is a socio-cognitive accomplishment (Galbraith & Rijlaarsdam, 1999; Holliway & McCutchen, 2004). Thus, there seems to be some planning on the

[3] For more on metacognition, see Flavell (1979).

part of the writer when making changes to their text to meet these communicative goals or to solve a problem identified in the text (Hayes, 2012). Planning to meet the reader's perspective was an activity observed in the study carried out when the child made other types of changes in their text due to the fact that the reader had been modified.

From a methodological point of view, some characteristics of the procedures adopted in this study deserve to be discussed: the use of text reproduction, the request for justifications about the changes made, and the manipulation of the audience.

Written reproduction is a methodological resource of great relevance in research on textual revision. Textual revision requires dealing with two texts simultaneously: comparing the text actually produced (or in progress) with the intended text (the one in mind to be written). It can be said that the text serving as the basis for the reproduction corresponds to the intended text. Thus, reproduction materializes the intended text, making it more evident to the writer, who can identify the discrepancies and distance between it and what was actually produced and make the necessary changes to make the written text the expression of the intended text. Besides being a methodological resource addressing a question of a conceptual nature, the reproduction guarantees greater control of the writing situation, since it provides the same stimulus for all participants.

To deepen our understanding of revision, new procedures might be explored to investigate other facets of this phenomenon. For example, besides investigating how much revision occurs, when revision occurs and what kinds of revisions are made, it is equally important to know why revisions are made. As previously mentioned, the reasons that lead the writer to make changes to their texts can be inferred from the actions performed on the text. However, this form of investigation can lead to mistakes, since the same revision operation can have different objectives, which would not be identified through observation. Thus, a more appropriate methodological procedure would be to ask the writer directly the reason that led them to make a given change. The responses given, as observed in the research described in this chapter, revealed the different types of reasons that guide the writer's decisions about the changes made in their text. This procedure, although of great relevance, has rarely been used either in investigative situations or in instructional situations. It is worth emphasizing here that thinking about the reasons that justify the changes the writer make in their texts is a metacognitive activity that can have a positive impact on the textual revision process.

Another aspect also related to methodological procedures adopted in the research described above refers to the second manipulation of the audience. This second manipulation, showed, in a striking way, the child's ability to consider the audience when revising their text. This capacity and the way it is configured need to be explored in greater depth in research that allows generalizations to be established from comparisons of findings across tasks, task conditions, and writers' characteristics (Rijlaarsdam et al., 2004).

The third remark refers to educational implications derived from data obtained from this investigation and from discussions about textual revision. In this regard,

Rijlaarsdam et al. (2004) raise a relevant question: What role can be played by revision activities in writing instruction? According to the authors, writing depends on a wide variety of factors (and their combinations), so writing instruction is complex, and it is difficult to identify which factor contributes most to the quality of a text. Although revision is a key element in this process, the relationships between changes made to the text and the quality of the final version produced have not yet been clearly demonstrated, as observed in research that focuses on teaching revision strategies. According to López et al. (2021), teaching revision strategies alone is not enough to generate a positive impact on the quality of texts. According to these authors, in order to be effective, teaching revision strategies should be combined with teaching students to have clear and explicit goals for their text and to think of them as being written for others. In other words, teaching should promote situations that could help students to take their readers' perspective (Rijlaarsdam et al., 2009). This could be done in several ways, for example, creating didactic situations in which students would be: (i) readers of other students' texts (see Moore & MacArthur, 2012; Pritchard & Honeycutt, 2007); (ii) encouraged to observe readers trying to understand the authors' text (Lumbelli et al., 1999); (iii) encouraged to raise their awareness of who are their readers and what their readers need to know; and (iv) directed to think about how this awareness affects how they revise their text. In general, it is necessary to promote authentic purposes and audiences when writing in the school context, creating situations in which the revision is triggered by the discovery of opportunities for text improvement (and suitable for the reader) other than correction of text flaws (Hayes, 2004; Myhill & Jones, 2007). Besides seeking to develop the sense of audience in students, it would be interesting to lead them to reflect on the reasons adopted when making changes to their texts, depending on the reader to whom the text is intended.

In conclusion, both instructional situations in the school context and situations in the research context have to consider several points about textual revision carried out by beginning writers: What are the changes they made? How many changes do they make? Where these changes occur in the text? When do these changes occur? To whom do they intend to write? And why do they make changes? It seems that there are many questions to be elucidated, questions that are too important to be neglected if we want to expand our knowledge about textual revision in children.

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References

Allal, L. (2000). Metacognitive regulation of writing in the classroom. Metalinguistic activity: The link between writing and learning to write. In A. Camps & M. Millan (Eds.), *Metalinguistic activity in learning to write* (pp. 145–166). Amsterdam University Press.

Allal, L., & Chanquoy, L. (2004). Introduction: Revision revisited. In L. Allal, L. Chanquoy, & P. Largy (Eds.), *Revision: Cognitive and instructional processes* (pp. 1–8). Kluwer Academic Publishers. https://doi.org/10.1007/978-94-007-1048-1

Allal, L., Lopez, L. M., Lehraus, K., & Forget, A. (2005). Whole-class and peer interaction in an activity of writing and revision. In T. Kostouli (Ed.), *Writing in context(s): Textual practices and learning processes in sociocultural settings* (pp. 69–92). Springer.

Bereiter, C., & Scardamalia, M. (1987). *The psychology of written composition*. Lawrence Erlbaum Associates.

Bergh, H., & Rijlaarsdam, G. (1999). The dynamics of idea generation during writing: An on-line study. In M. Torrance & D. Galbraith (Eds.), *Knowing what to write: Conceptual processes in text production* (pp. 99–137). Amsterdam University Press.

Boscolo, P., & Ascorti, K. (2004). Effects of collaborative revision on children's ability to write understandable narrative texts. In L. Allal, L. Chanquoy, & P. Largy (Eds.), *Revision: Cognitive and instructional processes* (pp. 1–8). Kluwer Academic Publishers. https://doi.org/10.1007/978-94-007-1048-1

Butterfield, E. C., Hacker, D. J., & Albertson, L. R. (1996). Environmental, cognitive and metacognitive influences on text revision: Assessing the evidence. *Educational Psychology Review, 8*, 239–297.

Calil, E., & Myhill, D. (2020). Dialogue, erasure and spontaneous comments during textual composition: What students' metalinguistic talk reveals about newly-literate writers' understanding of revision. *Linguistics and Education, 60*, 100875. https://doi.org/10.1016/j.linged.2020.100875

Camps, A., & Milian, M. (2000). Metalinguistic activity in learning to write: An introduction. In A. Camps & M. Milian (Eds.), *Metalinguistic activity in learning to write* (pp. 1–28). Amsterdam University Press.

Chanquoy, L. (1997). Thinking skills and composing: Assessment (and treatment) strategies for text revisions. In J. H. M. Hamers & M. Overtom (Eds.), *Inventory of European programmes for teaching* (pp. 179–185). Sardes.

Chanquoy, L. (2001). How to make it easier for children to revise their writing: A study of text revision from 3rd to 5th grades. *British Journal of Educational Psychology, 71*, 15–41.

de Castro, D. P., & Correa, M. (2014). La recursividad en la revisión textual [Recursion in textual revision]. *Tesis Psicológica, 9*(2), 96–109.

Dix, S. (2006). "What did I change and why did I do it?" Young writers' revision practices. *Literacy, 40*(1), 3–10.

Faigley, L., & Witte, S. (1981). Analyzing revision. *College Composition and Communication, 32*(4), 400–414.

Fitzgerald, J. (1987). Research on revision in writing. *Review of Educational Research, 57*, 481–506. https://doi.org/10.3102/00346543057004481

Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist, 34*, 306–311.

Flavell, J. H., Botkin, P. T., Fry, C. L., Jr., & Wright, J. W. (1968). *The development of role-taking and communication skills in children*. John Wiley.

Flower, L. S., Hayes, J. R., Schriver, K., Stratman, J., & Carey, L. (1986). Cognitive processes in revision. In S. Rosenberg (Ed.), *Reading, writing, and language learning: Advances in applied psycholinguistics* (pp. 176–240). Cambridge University Press.

Frank, L. A. (1992). Writing to be read: Young writers' ability to demonstrate audience awareness when evaluated by their readers. *Research in the Teaching of English, 26*(3), 277–298.

Galbraith, D. (1992). Conditions for discovery through writing. *Instructional Science, 21*, 45–72.

Galbraith, D., & Rijlaarsdam, G. (1999). Effective strategies for the teaching and learning of writing. *Learning and Instruction, 9*, 93–108.

Galbraith, D., & Torrance, M. (2004). Revision in the context of different drafting strategies. In L. Allal, L. Chanquoy, & P. Largy (Eds.), *Revision: Cognitive and instructional processes* (pp. 63–85). Kluwer Academic Publishers. https://doi.org/10.1007/978-94-007-1048-1

Garcia, J. N., & Arias-Gundin, O. A. (2004). Intervención en estrategias de revisión del mensage escrito [Intervention in revision strategies of the written message]. *Psicothema, 16*(2), 194–202.
Graham, S. (2018). A revised writer (s)-within-community model of writing. *Educational Psychologist, 53*(4), 258–279. https://doi.org/10.1080/00461520.2018.1481406
Hayes, J. (2004). What triggers revision. In L. Allal, L. Chanquoy, & P. Largy (Eds.), *Revision: Cognitive and instructional processes* (pp. 9–20). Springer.
Hayes, J. R. (2012). Modeling and remodeling writing. *Written Communication, 29*(3), 369–388.
Hayes, J. R., & Flower, L. (1980). Identifying the organization of writing processes. In L. W. Gregg & E. R. Steinberg (Eds.), *Cognitive processes in writing: An interdisciplinary approach* (pp. 3–30). Lawrence Erlbaum Associates.
Holliway, D. R., & McCutchen, D. (2004). Audience perspective in young writers' composing and revising: Reading as the reader. In L. Allal, L. Chanquoy, & P. Largy (Eds.), *Revision of written language: Cognitive and instructional processes* (pp. 87–101). Springer.
Limpo, T., Alves, R. A., & Fidalgo, R. (2014). Children's high-level writing skills: Development of planning and revising and their contribution to writing quality. *British Journal of Educational Psychology, 84*(2), 177–193. https://doi.org/10.1111/bjep.12020
López, P., Torrance, M., & Fidalgo, R. (2019). The online management of writing processes and their contribution to text quality in upper-primary students. *Psicothema, 31*(3), 311–318. https://doi.org/10.7334/psicothema2018.326
López, P., Torrance, M., Rijlaarsdam, G., & Fidalgo, R. (2021). Evaluating effects of different forms of revision instruction in upper-primary students. *Reading and Writing, 34*(7), 1741–1767. https://doi.org/10.1007/s11145-021-10156-3
Lumbelli, L., Paoletti, G., & Frausin, T. (1999). Improving the ability to detect comprehension problems: From revising to writing. *Learning and Instruction, 9*, 143–166. https://doi.org/10.1016/S0959-4752(98)00041-3
Midgette, E., Haria, P., & MacArthur, C. (2008). The effects of content and audience awareness goals for revision on the persuasive essays of fifth- and eighth-grade students. *Reading and Writing, 21*, 131–151. https://doi.org/10.1007/s11145-007-9067-9
Moore, N. S., & MacArthur, C. A. (2012). The effects of being a reader and of observing readers on fifth-grade students' argumentative writing and revising. *Reading and Writing, 25*(6), 1449–1478. https://doi.org/10.1007/s11145-011-9327-6
Myhill, D., & Jones, S. (2007). More than just error correction: Students' perspectives on their revision processes during writing. *Written Communication, 24*(4), 323–343.
Pontecorvo, C., & Morani, R. M. (1996). Looking for stylistic features in children composing stories: Products and processes. In C. Pontecorvo, M. Orsolini, B. Burge, & L. B. Resnick (Eds.), *Children's early text construction* (pp. 229–258). Lawrence Erlbaum Associates.
Pritchard, R. J., & Honeycutt, R. L. (2007). Best practices in implementing a process approach to writing. In S. Graham, C. A. MacArthur, & J. Fitzgerald (Eds.), *Best practices in writing instruction* (pp. 28–49). The Guilford Press.
Rijlaarsdam, G., & Van den Bergh, H. (2005). Effective learning and teaching of writing: Student involvement in the teaching of writing. In G. Rijlaarsdam, H. Van den Bergh, & M. Couzijn (Eds.), *Studies in writing: Effective learning and teaching in writing* (pp. 1–16). Kluwer Academic Publishers.
Rijlaarsdam, G., Couzijn, M., & Bergh, H. V. D. (2004). The study of revision as a writing process and as a learning-to-write process. In L. Allal, L. Chanquoy, & P. Largy (Eds.), *Revision of written language: Cognitive and instructional processes* (pp. 189–207). Springer.
Rijlaarsdam, G., Braaksma, M., Couzijn, M., Janssen, T., Kieft, M., Raedts, M., van Steendam, E., Toorenaar, A., & van den Bergh, H. (2009). The role of readers in writing development: Writing students bringing their texts to the test. In R. Beard, D. Myhill, J. Riley, & M. Nystrand (Eds.), *The SAGE handbook of writing development* (pp. 436–452). Sage. https://doi.org/10.4135/9780857021069.n31

Rijlaarsdam, G., Van den Bergh, H., Couzijn, M., Janssen, T., Braaksma, M., Tillema, M., Van Steendam, E., & Raedts, M. (2012). Writing. In K. R. Harris, S. Graham, & T. Urdan (Eds.), *APA Educational Psychology handbook* (Vol. 3, pp. 189–227). American Psychological Association. https://doi.org/10.1037/13275-009

Rouiller, Y. (2004). Collaborative revision and metacognitive reflection in a situation of narrative text production. In L. Allal, L. Chanquoy, & P. Largy (Eds.), *Revision of written language: Cognitive and instructional processes* (pp. 171–187). Springer.

Scardamalia, M., & Bereiter, C. (1982). Dos modelos explicativos de los procesos de composición escrita [Two explanatory models of the processes of written composition]. *Infancia y Aprendizaje, 58*, 43–64.

Singer, B. D., & Bashir, A. S. (2004). Developmental variations in writing composition skills. In A. Stone, E. Siliman, B. Ehren, & K. Apel (Eds.), *Handbook of language and literacy: Development and disorders* (pp. 559–582). The Guilford Press.

Spinillo, A. G. (2008). O Leitor e o Texto: Desenvolvendo a Compreensão de Textos na Sala de Aula [The reader and the text: Developing textual comprehension in the classroom]. *Revista Interamericana de Psicología/Interamerican Journal of Psychology, 42*(1), 29–40.

Spinillo, A. G. (2011). Compreensão de textos e metacognição: o papel da tomada de consciência no estabelecimento de inferências [Textual comprehension and metacognition: the role of awareness in establishing inferences]. In F. Viana, R. Ramos, E. Coquet, & M. Martins (Eds.), *Atas do 8.° Encontro Nacional (6.° Internacional) de Investigação em Leitura, Literatura Infantil e Ilustração* (pp. 42–57). CIEC- Centro de Investigação em Estudos da Criança da Universidade do Minho. (ISBN 978-972-8952-18-1).

Spinillo, A. G. (2015a). “Por que você alterou isso aqui?” as razões que as crianças adotam quando fazem alterações ao revisar seus textos [“why did you change it here?” The reasons children adopt when making changes in their texts]. *Revista Letras de Hoje, 50*(1), 32–39.

Spinillo, A. G. (2015b). A revisão textual feita individualmente e em colaboração: há diferenças?[Textual revision made individually and in collaboration: are there differences?]. *Revista Prolíngua, 10*(1), 230–240.

Spinillo, A. G. (2022). Metacognição e aprendizagem na sala de aula: experiências de ensino no campo da linguagem e da matemática [Metacognition and learning in the classroom: Teaching experiences in the field of language and mathematics]. In T. C. Pollo & H. V. Corso (Eds.), *Intervenções com foco na aprendizagem: clínica e escola*. Vetor Editora.

Spinillo, A. G., & de Lucena, R. N. (2019). Revisão textual em diferentes momentos da escrita: Revisando textos antes e depois de escrevê-los [Textual revision at different moments of writing: Reviewing texts before and after writing them]. In A. G. Spinillo & J. Correa (Eds.), *A escrita de textos por crianças: limites, possibilidades e implicações educacionais* (pp. 83–104). Vetor Editora.

Traxler, M. J., & Gernsbacher, M. A. (1993). Improving written communication through perspective-taking. *Language and Cognitive Processes, 8*(3), 311–334. https://doi.org/10.1080/01690969308406958

Van Gelderen, A., & Oostdam, R. (2004). Revision in the context of different drafting strategies. In L. Allal, L. Chanquoy, & P. Largy (Eds.), *Revision: Cognitive and instructional processes* (pp. 103–124). Kluwer Academic Publishers. https://doi.org/10.1007/978-94-007-1048-1

Witte, S. P. (1985). Revising, composing theory, and research design. In S. W. Freedman (Ed.), *The acquisition of written language: Response and revision* (pp. 250–284). Ablex.

Chapter 6
The Effect of Low-Level Writing Process on Written Narrative Textual Competence in Kindergarten and Primary School Children

Giuliana Pinto, Lucia Bigozzi, and Giulia Vettori

6.1 Introduction

This chapter will examine what consequences the acquisition of orthographic competence, from its emergence to its mastery, exerts on the quality of written text in the period from preschool to the end of primary school. To address this issue, we have focused on a specific type of text, narratives, a textual genre present early in the lives of children in all cultures and languages, appropriate to both oral and written form, maintained throughout life.

The importance of writing for child development can hardly be underestimated. Writing is an essential tool of thinking and relation with the surrounding world (Vygotskij, 1962); it transforms spoken language into an object of thought and reflection (Ong, 1982) and the development of writing requires "conscious persistence, flexibility, and high-level thinking ability" Graham (1982, p. 2). The mastery of written language is a prerequisite for participating in the literate community (Tolchinsky & Sole, 2009), mostly in the school setting, where it is an important medium for thought and recording concepts, an essential medium for study and learning, through which the latter is assessed.

The focus of this chapter is on how children's writing skills (orthographic competence and narrative text skills) develop and interact during early and middle childhood, as the child reorganizes prior writing systems to accomplish a variety of written tasks. Writing is conceptualized here as a dynamic process that proceeds in phases, consistent with models of dynamical change, in which new goals are accomplished in new ways. In the first part of the chapter, an overview of representative models of writing is provided. Previous models of writing have been proposed to

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define which components contribute to writing development and the relationships between its components. We will particularly highlight the implications of models regarding the pattern of relationships between orthographic skills and narrative text composition skills, over the course of development.

Then, representative research findings are reviewed, documenting both the pattern of development of children's oral and written narrative skills and the pattern of relations between lower- and higher-level writing skills in the transition from preschool to primary school and across primary school years.

Since the seminal model of Hayes and Flower (1980), it has been known that writing is a complex task for children, because a large number of language and cognitive skills are involved as shown by prominent models of writing, such as the Simple View of Writing and the Not-so-Simple View of Writing. According to the Simple View of Writing, writing is a product of two necessary skills, transcription and text generation (Berninger et al., 2002; Juel et al., 1986). The Not-so-Simple View of Writing expanded the Simple View of Writing by adding executive function, and self-regulatory processes, and the central role of working memory (Berninger & Amtmann, 2003; Berninger & Winn, 2006).

6.2 Low-Level Processes of Writing: Transcription

Researchers are deeply engaged in studying how children learn to write and the development of written skills. As we already know, novice writers are mainly engaged in mastering handwriting and transcription skills, the so-called lower-level processes in Hayes' (2012) model. It is generally assumed that lower-level processes, such as lexical access (McCutchen & Crain-Thoreson, 1994), typing (Alvès et al., 2007), and shaping of letters in handwriting (Berninger et al., 1994; Longcamp et al., 2008), all take place during Hayes and Flower's (1980) transcription phase. The acquisition of transcription can be described as the progressive mastery of such skills, starting from the beginning of the exposure to an alphabetized environment and which is consolidated in the course of formalized teaching of specific writing systems, with their distinct choice of habit and conventionality. The cognitive demands of a given component are highly dependent on how automatized the component is, thus higher cognitive demanda at the emergence and first acquisition of formalized transcription skills, lower cognitive demanda as the child becomes familiar with the sound-sign correspondence system and the spelling system. From an educational perspective, the first stage can be identified as the period from kindergarten till the end of the second year of primary school, while the second stage extends to the end of primary school, when this spelling competence it is expected to be automated. Timing and the successes and failures in acquiring spelling competence vary across studies, highlighting the need to pay attention to the nature of the language system. Most studies rely on English-speaking children learning an alphabetic and opaque writing system (Sénéchal & LeFevre, 2002; Whitehurst & Lonigan, 1998), while the stages of writing acquisition in languages with more

transparent orthography, such as Italian, are less studied and even less studied are nonalphabetic, syllabic, or ideographic writing systems (Vettori et al., 2022a).

6.3 High-Level Writing Processes: Text Writing

Text production is a complex activity that involves several cognitive processes: the so-called high-level processes (Hayes & Flower, 1980). According to the most shared models of writing (Berninger et al., 1994; Swanson & Berninger, 1996), when composing texts, writers are engaged in the generation and evaluation of ideas to be communicated, in the transposition of these in written language by observing grammatical, and in the spelling rules that the specific language system requires (Graham & Harris, 2006; Kellogg, 1996). Hayes (2012) suggested the importance of considering the active role of writers as self-regulators of their own processes such as reviewing and editing processes. Furthermore, the higher-level processes converged under the heading of executive functions and working memory. Following empirical evidence, a developmental trend was shown passing through a knowledge-telling approach to a knowledge-transforming approach, which means directing the composition of text through our own goals, which need to be reached (Bereiter & Scardamalia, 1987). The metacognitive level is thought to be more suited to advanced and expert writers than to beginning writers, who are still tackling the low-level components. This developmental passage means that primarily children need to proficiently develop the lower-level transcription skills (spelling and handwriting) to progressively free working memory resources in favor of higher-level cognitive processes (Berninger et al., 1992; Graham & Harris, 2000; McCutchen, 1996).

6.4 Relationships Between High- and Low-Level Production Processes in Written Composition

Of particular interest are the models of writing that include the relations between the different components of writing. In the model by Berninger and Swanson (1994; Berninger, 2000), which adapted the model by Hayes and Flower's to beginning writers, writing is the product of transcription (e.g., spelling accuracy and writing fluency), text generation (translation of ideas into language), and executive processes (e.g., self-regulation and attention). The process develops through a dynamic working memory with direct links to long- and short-term memory. According to this perspective, both lower- and higher-level processing skills are carried out synchronically in text production, and the different subprocesses are rarely performed as discrete, deliberate steps but typically occur as multiple, iterative cycles (Graham et al., 2002; Kellogg, 1996). Scholars converge in suggesting that the demands of high-level composition processes, including planning, language generation, and reviewing, must be juggled with those of low-level motor transcription (Fayol et al.,

1999; Flower & Hayes, 1980; Kellogg, 1996; Torrance & Jeffery, 1999). The high-level processes of planning, sentence generation, and reviewing demand substantial resources (Kellogg, 1988), but even low-level motor transcription is demanding in children for whom handwriting is not yet automatic, and coordination of access to these limited resources appears to be a central problem in composition (McCutchen, 1996). Researchers agree in considering the mastery of transcription skills particularly challenging for young children engaged in translating their ideas into text (Graham & Harris, 2000; Graham et al., 1997). Research findings have shown that not only high-level cognitive executive functions but also low-level executive functions contribute to writing development across the first four grades of primary school (Altemeier et al. 2008).

The models on writing so far converged in the definition of the cognitive and language components. Also, models converged in emphasizing the relation between low-and-high level skills, which underpin writing texts. The influence of proximal and distal factors with respect to an individual in shaping the writing development is still to be explored in-depth. Proximal factors might include, among others, the nature of the transcription system adopted, the variety of writing functions and tasks taken into consideration, and the quality of the educational and school system within which literacy is taught. Distal factors might include the morphological and structural specificities of different languages, the linguistic competence level shown by the children, their family socio-economic status, and home literacy environment and practices (Bigozzi et al., 2023).

Despite about 40 years of research, our understanding of the dynamics of how transcription and text composition interact still remains rather limited. In particular, suggestions inferred from the major models on the effect of the transition from orality to writing in the construction of written narrative texts, and namely, the influence of transcription skills on the textual quality of narratives, the topic we are interested in here, can open up to multiple interpretations. From one point of view, one might think that it is oral narrative competence that exerts a “causal" and predictive effect on written narrative, considering the diachrony whereby oral narrative is temporally prior to the written form. From this perspective, the act of writing would constitute a filter between the mental narrative project and the narrative product, potentially hindering it.

One might, on the other hand, expect that the act of writing (and the broader process of literacy that underlies it) would retroact favorably on the mental model from which the narrative flows. Indeed, it is well-known that accessing reading and writing has important cognitive consequences: and those who are literate not only speak differently but also think differently, with a strengthening of logical-deductive thinking, abstract thinking, memory, metacognition, and a different weight on working memory. The retroaction of writing on thought might manifest when writing is mastered. The challenge of developing an adequate cognitive theory of text production to describe how the various inputs into the writing system are processed in order to result in a mental coherent representation is still here text (Wengelin et al., 2009).

6.5 What Research Tells Us

In the course of the following part of the chapter, we aim to account for the recent research that can help clarify the state of the art in this research field, bringing empirical evidence to support one or the other line of interpretation. The research projects referred to here focus on how the acquisition of the transcription level of writing interacts with the high-level process of composing narrative written texts, in children at school. The research projects we are going to describe present some specific and novel features. On the methodological side, they are mainly conducted with a longitudinal design, thus appropriate to account for the developmental trend of the skills investigated; they are also cohort research projects, that is, they follow groups of the population studied sampled in successive years. Moreover, in these research projects, the textual product is collected simultaneously and systematically compared in the two modes of production, oral and written. From the theoretical point of view, they assume a definition of literacy and writing development as a continuum with roots in the early years by including among the transcription skills the early under-considered stage of emergent writing found in preschool years, before the formal teaching of writing and reading takes place. To explore the effect of writing on textuality, research projects address narrative text, a genre significantly present in cognitive-linguistic and communicative experiences from the earliest years of a child's life and suitable for construction in the two channels, orality and writing. Through narratives, children construct and understand the world around them and their living experiences. The sense of telling is strictly connected with relating children's conceptions of events into words to be combined into meaningful mental representation with the aim of being communicated (Bruner, 1990; Nelson & Van Meter, 2007). Through the construction of a story, children can exert their symbolic function to represent reality and their internal experience of reality (Georgakopoulou, 2006); this is a textual genre pervasive across cultures and across languages. In the educational context, it is a text that occurs in both oral and written form, thus allowing for a timely intra-subject comparison of productions produced in different codes, oral and written. The narrative text is the subject of systematic and consensual evaluation criteria. The use of decontextualized language allows one to think and reflect upon experiences that are not immediately accessible and to convey meaning through linguistic devices (e.g., syntax, vocabulary) and metalinguistic aspects (e.g., structure, coherence). Last but not least, the sensitivity of narrative text to variations in communicative context conditions is extensively documented (Pinto et al., 2018a, b; Spinillo & Almeida, 2014; Spinillo & Pinto, 1994).

6.6 Low-Level Writing Ability and Textual Competence in Emergent Literacy

The first research perspective focuses on the relationship between writing and composition of narrative texts in the course of emergent literacy and is related to a view that considers literacy as a developmental continuum deeply rooted in the life of the child, rather than considering primary school as the starting point of becoming literate. Studies in the field of the construct of emergent literacy have permitted identification of the wide range of skills and knowledge that children possess before entering first grade, considered to be the antecedents of children's literacy development (Lonigan et al., 2000). According to this view, the child's first attempts at writing appear before the formalised teaching of writing and take the form of activities of exploration, discovery and 'invention' of the relationships between oral and written language (Ferreiro & Teberosky, 1982). Writing development starts when the child first leaves a visible mark with a writing tool on the external environment (Gibson & Levin, 1975). The hand's manipulation of writing tools to produce writing continues to develop in predictable phases that proceed from random scribbling to imitating horizontal and vertical strokes and then diagonals and circles and other simple shapes, to invent and imitate lines in various orientations and simple shapes.

6.7 Narratives in Emergent Literacy

The perspective of emergent literacy (Sulzby & Teale, 1991) plays a significant role in the study of the development of narrative competence, in which it configures a bridging ability between oral and written language. The practice of constructing and communicating a story is deeply rooted in the experiences of children from the earliest days of life (Bamberg, 2016). Children from 3 to 5 years old, before formal instruction in primary schools, start to construct a tacit knowledge about narrative structure and produce stories through oral language (Laughton & Morris, 1989; Montague et al., 1990). From a developmental perspective, a growing improvement of oral narrative competence has been observed in the literature: if already at around 3–4 years old, children are able to arrange and describe some action sequences (Bamberg, 2006); later, at around 5 years old, children enrich their stories with constituents and produce longer stories (Damico & Ball, 2008; Pinto et al., 2009).

Very few studies involved in the field of emergent literacy enlighten the relationship between the ability to write and the textual competence in the model of emergent literacy (Hall et al., 2015).

In a large cohort research, which studied longitudinally literacy abilities of around two thousand Italian children, a research team based at the University of Florence (Italy) followed the same children from preschool (around age of 5) until the end of the fourth grade of primary school (5-year follow-up). In Italy, formal schooling begins when children are 6 years old, and about 95% of children from 3

to 5 years old attend preschool, in which activities involving phonological awareness, linguistic games, exploring notational systems, and the use of listening and storytelling are widespread and daily practices. The data collected included indicators of the constituent skills of the emergent literacy construct theorized by Lonigan et al. (2000). In the following section, the tasks used to measure writing skills in children will be described.

6.7.1 Measuring "Writing Before Writing"

In these studies, writing skill was defined as "the ability to invent signs" (even those not yet conventional) that obey the rules of alphabetic writing (sound-sign correspondence, numerosity, recurrence, etc.). This task measures children's knowledge of concepts, such as words, word boundaries, word morphology, directionality of print, and their functioning in written language (adapted from Ferreiro & Teberosky, 1979/1982). Each child was asked to "write as he/she knows" and to "tell what he/she wrote following with a finger"; three different sets of items were given by the experimenter. The Phonological Integration and Sign-Sound scale analyses children's conceptual knowledge of the morphology of graphic signs (how similar the graphic signs produced by children are to conventional letters), the numerical sound-sign correspondence (the relationship between sound and sign), and the orthographic variation of phonological units (Pinto et al., 2011; Pinto et al., 2018; Cameron et al., 2020; Incognito et al., 2021).

6.7.2 Measuring "Narrative Competence"

To capture children's textual ability, different measures were used. Structure is characterized by the presence of components of a story (Spinillo & Pinto, 1994; Pinto et al., 2009, 2015): (1) title, (2) conventionalized narrative opening, (3) characters, (4) setting, (5) problem, (6) central event, (7) resolution, and (8) conventionalized narrative closing. These resulting levels were:

- First level (no narrative): Simple description or list of events, objects, or facts;
- Second level (sketch narrative): opening, setting, character(s), conclusion or opening, sketch of the problem, and resolution
- Third level (incomplete narrative): opening, character(s), problem, and resolution
- Fourth level (essential narrative): opening, character(s), problem, central event, and resolution;
- Fifth level (complete narrative): title, opening, character(s), setting, problem, central event, resolution, and narrative closing.

Cohesion, which assures links between sentences (Halliday & Hasan, 1976), helps to unite the individual sentences with linguistic modalities (connectives,

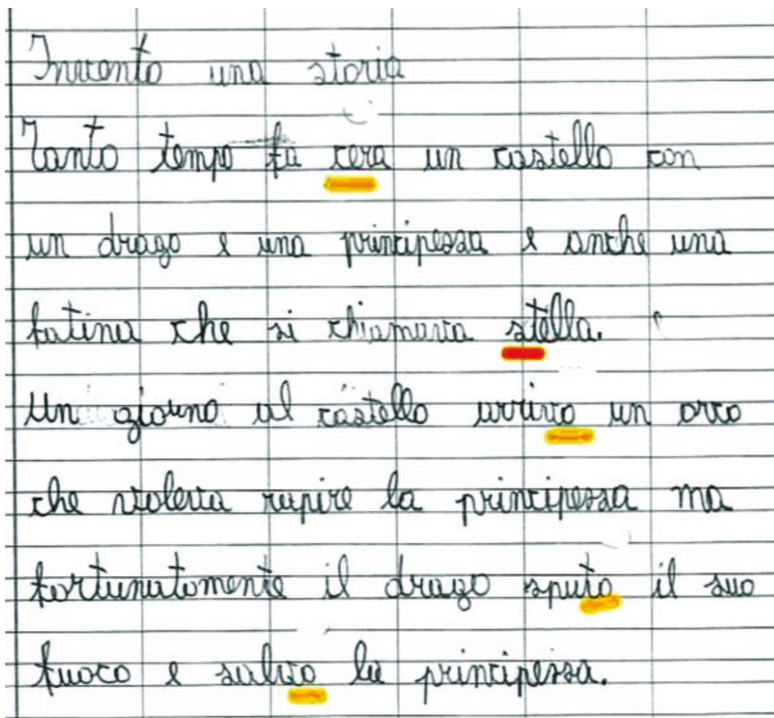

Fig. 6.1 Example 1: Story written by Y at 7 years at the early phase of learning to write with misspellings highlighted in orange

pronouns etc.) and allows the text to acquire a unity of meaning. Finally, coherence derived from the number of incoherencies between sentences in children's narratives, proportional to the total number of sentences (Shapiro & Hudson, 1991).

After analyzing the whole corpus of data, Pinto et al. (2008, 2009) developed an emergent literacy model for the Italian language (see Fig. 6.1) that highlights the relationships between emergent writing skills in preschool children, consisting of three factors correlated each other: phonological (rhyme, alliteration), textual (structure, cohesion, coherence), and notational competence (conceptual knowledge of orthographic notation) (Pinto et al., 2009). The results provide an emergent literacy model for the Italian language context including three key competences in kindergartners: phonological competence, conceptual knowledge of writing system and textual competence, as well as the significant interrelations between them. The importance of phonological competence, such as the child's ability to detect sound units in language flow and to intentionally handle them in tasks like rhyme identification and single-sound identification, widely acknowledged in opaque orthography (Lonigan et al., 2000), is confirmed for a more transparent orthography. A further key competence is children's conceptual knowledge

of the writing system indicating the availability in their memory of the orthographic representation of the letters of a word and they are able to write them on a sheet of paper. This is a particularly important competence in kindergartners learning a transparent language like Italian, where there is a quite univocal correspondence between sound and sign. Finally, kindergartners' textual competence is the third key competence in the emergent literacy model, highlighting the importance of a child's ability to go beyond the single meaning unit transmitted by the word to construct a relationship network among words that are in the narrative text. Correlations between the three key competences of the emergent literacy model support the conceptualization of emergent literacy as a complex relation system between different domains, oral language, specific patterns of written language, and textual genre knowledge. From this model, it is clear that notational and textual skills concur in the overall construct of emergent literacy but do not exhaust each other, contributing to it with different portions of explained variance. Orally telling a story and grappling with the discovery of writing appear so far to be two related but not overlapping skills.

6.7.3 Lower-Level Writing Skills and Textual Narrative Competence in the Novice Writer

The second set of research projects longitudinally investigated the relationships between early writing skills (emergent writing) and narrative text composition skills (oral narratives), measured in preschool children, and their later instrumental writing skills (transcription) and narrative text composition skills, measured in both oral and written form, in the early primary school period. The described research, longitudinal and predictive in design, intertwined the oral narrative productions produced by children in kindergarten and during the first 2 years of primary school with their written narrative productions and their instrumental writing skills. To shed light on the specific change that writing brings to the drafting of narrative texts, we will refer to the studies that have a specific research design: that is, that have compared the narratives offered by children in the two modes, oral and written, during the different stages of literacy (emergent vs. novice writers, novice vs. expert writers). Although the contribution of oral language skills in underpinning the development of written language has been pointed out (Dockrell et al., 2009), especially in considering the early stages of learning to write, research in this direction is rather scarce. Actually, a clear picture of the relationships between narrative competence across oral and written language is lacking, because oral and written narrative development in the vast majority has been studied in a separate way.

6.8 Starting Formalized Literacy: Novice Writers

At the onset of formal, compulsory schooling, around the age of six, an important change occurs, due to exposure to a deliberate systematic teaching of writing. An important educational goal is to acquire a proper domain of instrumental writing, and this requires the development of a complex variety of skills (Struthers et al., 2013) and their gradual control: the activation and coordination of orthographic, graph-motor, and several linguistic skills, including, but not limited to, semantics, syntax, spelling, and writing conventions (Singer & Bashir, 2004). According to Frith (1985), the learning process of writing starts with the use of the phoneme-grapheme conversion mechanism. While children are learning to read in the first year of primary education, they decode words by making a correspondence between one sign and its sounds utilizing the sub-lexical route (Coltheart & Rastle, 1994; Coltheart, 2000). The coding of the word by the sub-lexical route is based on phonological-to-orthographic conversion rules (Patterson, 1986; Tainturier et al., 2000), and this takes place through three consequent operations: (1) its segmentation into the individual phonemes, (2) the association between each phoneme and the corresponding grapheme, and (3) the production of the word using an orthographic form.

In the early stages, children are mainly engaged in orthographic coding tasks; therefore, low-level processes are implemented, including also the representation and the recalling of graphemes from memory, phonological coding skills, and knowledge of syntactic structures. Children learn to integrate developing motor skills by hand with visible language in the form of conventional alphabet letters, which have names and can be associated with and stand for the sounds in spoken words. The child becomes able to trace over letter forms and write the whole alphabet from memory (or connect sound and sign on a regular basis (Berninger et al., 2006).

6.9 To Tell a Story, To Write It: The Bridge Between Oral and Written Language

First and second graders start to produce text including words, phrases, clauses, and sentences. Children are taught to select and organize the content, in accordance with a comprehensive plan of the text, putting it in written form. The texts in which children initially engage are mainly narrative, because they are the most experimented with and related to their extensive experience with this genre from a very early age (Sulzby, 1985). At the same time, narrative competence flows in the written language and text level. Narrative skills imply the capacity to overcome the single meaning of a few words to construct a “weaving" of meanings (Kintsch, 1988; Levelt, 1989). Subsequently, children hold a wealth of knowledge about the use of language in a complex and creative way, as narratives, alongside the rules of this

specific textual genre, and the use of decontextualized language. Deeply rooted in their oral language, children are now asked to frequently use written language in producing narratives. The research described here, therefore, shows both the development of the individual components of writing (low and high level) and narrative skills and the predictive intertwining between them. Studies carried out so far have considered narratives and their development within the same means of expression, oral or written as a consequence, we know little about the transition from oral to written code, about what happens to the child's narrative ability when changing means of expression.

In the set of research projects reported here, kindergartners were followed longitudinally until entering the first grade of primary school. In kindergarten, children performed an oral story production task, and later, in first grade, the same children performed a written story production task. As previously described, narratives were evaluated in terms of structure, cohesion, and consistency. The written narrative texts in primary school were also codified in terms of orthographic errors to assess children's spelling competence.

6.9.1 Measuring Transcription Ability

Two tasks (standardized dictation and written narrative) were used to measure children's spelling skills. The paper-and-pencil text dictation was performed individually by children in a collective session in the classroom during school time. The dictation task was taken from the Battery for the Evaluation of Writing and Orthographic Competence in Primary School (BVSCO), standardized for the Italian population. Text dictation allows one to analyze children's writing skills within an ecological setting provided by the semantic context. Furthermore, previous studies show that children's orthographic skills are stable across writing tasks even though they may involve different cognitive processes. The appropriate dictation text was used according to the grade. The children listened to a recorded text, and each child had to write down the text. Written narrative texts produced by children were also codified for orthographic errors, identified on the basis of the classification of orthographic errors proposed by Pinto et al. (2012).

6.10 The Development of Narrative Textual Competence Across Oral and Written Language in the Transition

The results from Pinto et al. (2009) showed significant relations between the three key competences of the emergent literacy model and writing skills in primary school children. In particular, kindergartners' conceptual knowledge of the writing system stands out for the significant predictive value with respect to later emergent writing abilities.

The phonological competence predicted fluency in number writing and correctness in nonword dictation. The textual competence factor does not predict any of the emergent writing abilities (word writing); rather, textual competence shows a successive influence on children's improvement in text writing abilities. Children's narrative competence improved over the years. Kindergartners' ability to tell stories with a high level of structure, cohesion, and consistency predicts the subsequent ability to write stories with the same qualities in primary school (Bigozzi & Vettori, 2016).

Beyond direct effects among key competences of emergent literacy and later writing abilities, a further study showed indirect relations between oral (kindergarten) and textual written competence (first and second grade in primary school) mediated by spelling skills. In a 3-year longitudinal study, Pinto et al. (2015) investigated the predictive relationship between kindergarten oral narrative competence and first- and second-grade written narrative competence, taking into account spelling skills. One hundred and nine Italian kindergartners produced an oral narrative, whereas in the first and second grade of primary school, they produced a written narrative, and their orthographic competence in first grade was assessed via a dictation task. The results showed that kindergartners' oral narrative competence affected the first- and second-grade written narrative competence via a mediational effect of orthographic competence (see Example 1 in Fig. 6.1).

Translation of Example 1: A long time ago, there was a castle with a dragon and a princess and also a fairy called Stella. One day, an ogre arrived at the castle and wanted to kidnap the princess, but fortunately the dragon breathed its fire and saved the princess.

The pattern of relationships between writing and storytelling outlined for emergent literacy took on a new light when the effects of writing were sought in the transition between emergent literacy and early formalized literacy. The results gave empirical support to the hypothesis that emergent literacy abilities can be used to predict the acquisition of formal writing in primary school, with direct and indirect effects. As expected, invented writing predicts spelling, for children learning a transparent writing system (Pinto et al., 2009, 2015), and oral narrative ability predicts written narrative ability. Less expected is the result about the effect of writing transcription ability on written narrative textual quality.

Initial writing impacts the quality of narrative text only in children with severe difficulties. Their text turns out worse probably because, using the metaphor of Bereiter and Scardamalia (1987), they use a knowledge-telling approach, able to minimize the cognitive loading of other processes (planning, monitoring, and evaluating) when writing. This result agrees with what emerged in other studies; handwriting or spelling skill difficulties may contribute to disrupting text construction processes, due to the high cognitive loading (Graham & Harris, 1996). This relationship is particularly evident in opaque orthographies, such as English, since young writers are often challenged by spelling (Dockrell et al., 2015), less so in our case, where transparent writing keeps down the number of children with severe spelling difficulties. In this first period of schooling, writing instruction directs their

attention and effort in underpinning children's automaticity of transcription skills. It is expected that, in more advanced school grades, children master handwriting and transcription skills and they become more proficient in expressing their ideas and mental models in texts.

The mastery of writing at the level of transcription reduces the load of attention and memory and allows the child to devote him/herself to the generation of ideas and the text's construction (Babayigit & Stainthorp, 2011). However, as argued by Swanson and Berninger (1996), in the early stages of writing development, orthographic coding constrains the production of written symbols. McCutchen (1996) proposed that the act of transforming the word that the writer wants to say into written symbols is so demanding for children that they minimize the use of other processes, such as planning and revising. Those children who have not yet mastered the mechanics of writing show a greater difficulty in accessing the higher order skill, with consequent worse performance (Graham & Harris, 2000).

6.11 Lower-Level Writing Skills and Textual Narrative Competence in Expert Writers

The third set of research projects documents the developmental pattern of early writing skills, oral and written narrative skills, and the pattern of their relationships in the period when transcription skills should become consolidated and automated.

6.11.1 Progress in Spelling

Age-related improvements were detected in writing development. The most evident development was most clearly seen during preschool and early school years. In any case, general agreement is reached in considering the period between the age of 8 and the age of 11 as interested by gains in writing. At this age, children attending third to fifth primary school grades are expected to start using the semantic lexical route. The lexical route relies on accessing word specific memory; it utilizes word-specific knowledge to determine the corresponding translation. In this case, the word's orthographic representation is recalled from the lexical memory, and it is immediately available also in the phonological form and semantic value (the meaning that the word refers to) (Coltheart et al., 2001).

Later, when these processes are automated, the child is able to move his/her cognitive resources to the high-level processes, such as planning, production, and revision (Swanson & Berninger, 1996). It is expected that gradually the child conveys the instrumental skills of writing at the service of textuality.

6.11.2 Progress in Writing Narrative Text

An expert writer should be able to work simultaneously on different levels of text processing, and his/her awareness of narrative structure facilitates the process of planning and review of the written product (Olive & Kellogg, 2002). However, it has been underlined that growth in the mastery of writing is not regular but interested by advancement, pauses, and even regression, giving birth to variations. In this respect, some authors noted that the pace of development may start to reduce at around the age of 10 for the linguistic structure (Justice et al., 2006) and at around the age of seven for the story grammar (Schneider et al., 2006). During the early years of schooling, most children have learned to use the narrative structure in its essential aspects, and the use of inter-causal connectives becomes more sophisticated between 5 and 10 years of age (Shapiro & Hudson, 1991). Measures of event content, such as story grammars (Hudson & Shapiro, 1991; Schneider et al., 2006), main ideas (Bishop, 2004) or plot structure (Berman & Slobin, 1994), and semantic scores (Kit-Sum To et al., 2010) showed a developmental trend. In fact, it seems that, as children grow up, their narratives develop from a multiple point of view: linguistic structure in terms of productivity and syntactic complexity, word fluency, and word variability (Justice et al., 2006; Westerveld et al., 2004), and syntax (Reilly et al., 2004). A study conducted by Mäkinen et al. (2014), which focused on the development of picture-elicited narrations in Finnish children aged between four and eight, showed that productivity, syntactic complexity, referential cohesion, and event content improved with age. Other authors have observed that cohesion in text benefits from a better understanding of the listener's needs, which increases as children get older (Kit-Sum To et al., 2010; Schneider & Dubé, 1997), even though it still remains a demanding process in eight-year-olds' stories (Hudson & Shapiro, 1991).

Usefully contributing to this picture is the last segment of the large longitudinal study conducted on Italian students outlined above. In this group of research projects, narrative performance, oral and written, and writing skills are examined in students between the ages of 8 and 11, for whom significant progress toward the mastery of transcription skills is expected. A recent study (Vettori et al., 2022b) investigated the developmental pattern and relationships between oral narrative textual skills, spelling, and written narrative textual skills in monolingual school-aged children learning a transparent language like Italian. One hundred and forty-one primary school children from grades 2 to 5 in Central Italy aged between 7 and 11 years old obtained scores for oral and written narrative textual competence, spelling accuracy in dictation, and spelling accuracy in written texts. The results show that spelling accuracy and oral and written narrative textual competence improve throughout the primary school years. Furthermore, the results show that the only predictor of written narrative textual competence in primary school children is oral narrative textual competence, and it could be hypothesized that this relationship is influenced by the age of the participants. The pattern of relationships identified shows a complex network of oral and written processes. The medium of writing

does not impact narrative textual competence. Children's oral narrative textual competence easily transforms into their written narrative productions.

These results show that children are able to produce texts with better quality by overcoming the mechanical demands of transcription skills, in keeping with the converging evidence in the literature that improving automaticity of handwriting or spelling improves text generation and quality (Graham et al., 2002), and with evidence coming from treatment studies. Notarnicola et al. (2012) showed that Italian children are able to use the direct pathway (lexical route) of writing very early but initially resort to the sub-lexical route. Within the first 3 years of schooling, children optimize lexical strategies. It is important to consider that the way in which a child faces the phases is tied to the features of degree of orthographic regularity. Concerning Italian children, learning to write and to transform the words that the writer wants to communicate into written symbols on the printed page means primarily mastering spelling ability. The complete efficiency of transparent languages' sound-letter rules might seem, at first sight, to eliminate any need to take morphemes into account for correct writing. However, although the Italian system is characterized by greater transparency with respect to other languages, such as English, a certain degree of ambiguity remains in the oral-to-written transcription (Angelelli et al., 2010). An accurate performance in the processes of

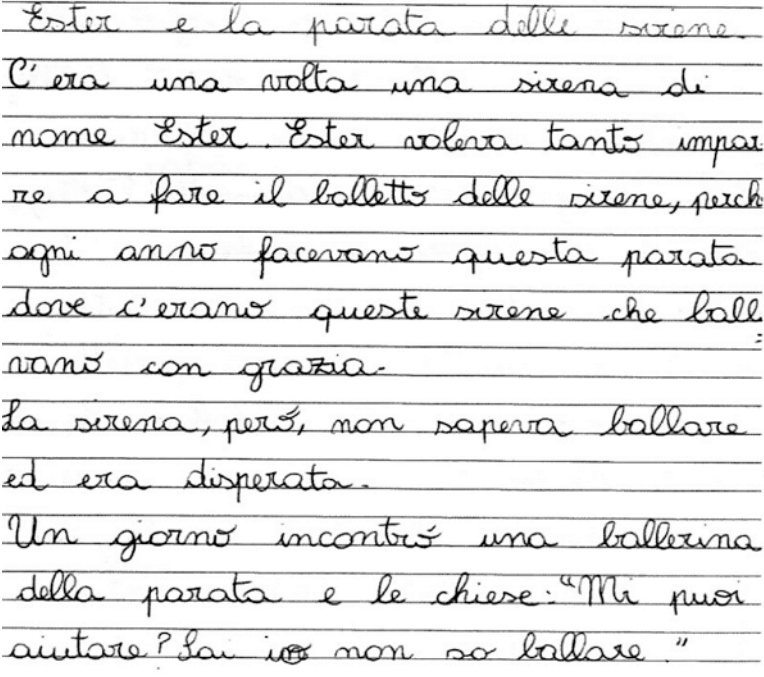
Ester e la parata delle sirene
C'era una volta una sirena di
nome Ester. Ester voleva tanto impar
re a fare il balletto delle sirene, perch
ogni anno facevano questa parata
dove c'erano queste sirene che ball
vano con grazia.
La sirena, però, non sapeva ballare
ed era disperata.
Un giorno incontrò una ballerina
della parata e le chiese: "Mi puoi
aiutare? Sai io non so ballare"

Fig. 6.2 Example 2: Brief part of a longer story written by D at 10 years when writing is automatized

phoneme-grapheme conversion requires the recovery of correct graphemic representation, through the use of lexical processes (Angelelli et al., 2010). Skilled writers mainly use the direct pathway (lexical route), and this supports the automation of processes and the deep processing of the word, using minimally sub-lexical processes (Booth et al., 1999). The acquisition of adequate orthographic competence is crucial for the achievement of advanced writing abilities: the rapid and correct mastery of phoneme-grapheme correspondences is a necessary condition for the novice writer. The incomplete acquisition of this tool kit is an obstacle to accessing the semantic, syntactic, and textual components of written language (Pinto et al., 2012) (see Example 2 in Fig. 6.2).

Translation of Example 2: Once upon a time there was a mermaid named Ester. Ester wanted very much to learn how to do the mermaid dance, because every so often they would have this parade where there were these mermaids dancing gracefully. The mermaid, however, did not know how to dance and was desperate. One day she met a dancer from the parade and asked her: “Can you help me? You know I don’t know how to dance".

6.12 Final Remarks

In this chapter, we started from the assumption that a thorough understanding of the impact of literacy on the human mind is an essential prerequisite for successful education policy and guidance of didactic support. Writing constitutes an externalized cognition that has unique advantages. First, it provides greater opportunity to reflect about ideas and refine them, because visible language, unlike traces in temporary memory that fade, is available for examination and reflection over time. Second, production of written language, which requires acting on the external environment via language by hand, may enhance engagement and social participation.

Throughout the chapter, we have discussed the importance of the relationships between low- and high-level components of writing and documented some empirical evidence from research. Measuring in parallel children’s oral and written narrative ability allows to examine the effect of oral narrative ability on written one’s and both relations and independence between oral and written processes. Oral narrative ability is, in fact, an expression of the cognitive-linguistic narrative skills possessed by the storyteller; written narrative abilities depend on the mastering a new communicative medium, writing and transcription skills. We have produced empirical evidence that an efficient coordination of the different writing (transcription) and oral language (oral narratives) processes is central to producing good-quality texts, from the emergence of literacy to the more advanced mastery of writing, but with a pattern that changes over time. The findings reported here are consistent with past research, suggesting that transcription skills demands a substantial degree of available working memory resources in children, leaving little available for high-level processes. At the same time, the findings reported also reduce the weight of

transcription skills, at least in languages with transparent spelling and in a type of text such as narrative, which leaves much freedom of lexical choice to its author.

In summary, from the earliest explorations of written language (emergent literacy), thematic-textual content and the system of transcription rules are correlated. In the preschool child, who is also already a budding storyteller, there coexist knowledge about the composition of narrative text, its component parts, and the intra-textual links that must exist between them, on the one hand, and its exploration in search of the specific signs that stand in service, their relationship to speech sounds, and the rules for juxtaposing and combining them, on the other. This set of knowledge, which converges and concurs in the construct of emergent literacy, appears to have a common matrix and is probably united by the same interest in discovering the world of written language and its relationships of continuity and specificity with oral language. With the transition to formalized learning of writing for the novice writer comes the challenge of improving, or at least maintaining in the written text, the level and compositional qualities displayed in oral story production. The examination of the mediating effect exerted by the transcription capacity on the quality of written narrative texts clarifies that this goal turns out to be achieved quite easily in children who learn to write in a transparent orthography language, for most of whom learning not to make transcription errors is fairly straightforward. A similar trend in the data is found in the experienced writer, who can rely on the effective mediation offered by quick and correct writing: similarly, to effective beginners, oral and written narrative outcomes are at the same level of quality. However, the predictive link identified in children with adequate spelling skills was not confirmed for those children with difficulties in orthographic ability. A lack of spelling skills disrupts the opportunity to express narrative skills in the transition from the oral to written code. On the contrary, for the pupils experimenting more difficulties in the transition to alphabetization, the pouring out of their narrative skills in written form, shown in the oral story, becomes slower and less successful. These findings are in line with previous research, suggesting that transcription asks for and consumes working memory resources in children, leaving little available for high level processes. We can also imagine that children for whom transcription skills are most demanding and persistent can be induced to avoid writing and develop a mindset that they cannot write, even leading to the arrest of the development of writing.

This chapter covers a cognitive, educational, and developmental perspective. From a cognitive point of view, it has considered writing processes and how spelling skills interact with previous oral narrative skills. It is important to investigate the relations between early oral narrative skills in pre-school and later written narrative skills in primary school to gain a more comprehensive view on the relations between oral and written language in the Italian transparent language system across a key educational transition. By considering primary school and developing comparison groups (novice vs. more advanced writers), the developmental nature of oral and written narrative skills has been discussed. The data that has been presented has shown that through primary school, written narrative skills increased, while oral narrative skills showed an almost unchanged level. Furthermore, children in the

initial phase of primary school showed their familiarity with orality, since their oral narrative performances reached a higher level compared with the written form. Finally, a relationship between the two channels has been highlighted, and a pivotal role of oral narrative competence with respect to written narrative competence has been revealed in the first period of schooling. Later, oral and written narrative competences seem to proceed in a parallel and more autonomous way, leading to hypothesize a possible renowned mutual integration in more advanced phases of the educational and developmental path.

There are some limitations concerning the empirical studies that need to be brought into the discussion. Regarding the reliability of the results of this study, a large variability in some of the narrative measures is a weak point. Therefore, this issue, in addition to quite small sample sizes, needs to be resolved in future studies. A further point to make here relates to the selection of the writing assessment; free story generation tasks are extensively used for research purposes, but this methodology has some restrictions. Especially for the youngest children participating, the difficulty of the tasks, as well as the presence of emotions, along with shyness and anxiety, can interfere with performance, so it might be useful to propose and to combine results from multiple and different narrative elicitation methods, such as picture-based, story-generation tasks. Thus, future studies should integrate the use of different prompts, partners, and instructions. What is more, future studies should investigate the associations of narrative skills with other measures of narrative competence, *in primis* with the use of mental states used to describe the characters of the story. Again, in the investigation of oral and narrative competence in association with other literacy skills, such as reading decoding and comprehension, lexical skills would be very informative in the studying of narrative competence in both typical and atypical samples. Finally, the story grammar approach was originally sociocultural context dependence, because it belonged to a Western conception. Aware that narratives can be affected by cultural factors, future studies should attribute greater importance to expanding the cultural background of the sample. It would be interesting to verify the solidity of these competences during the following levels of writing abilities and to verify their relations with reading acquisition.

In terms of practical implications of this research, a preliminary link can be made to the assessment of narrative competence through a spontaneous story generation task. This kind of task has revealed ecological in being an easy and convenient method to assess children's language skills going beyond the sentence level, both via writing and speech. Therefore, its use in the educational and clinical setting for assessing and training children's communication skills should be encouraged.

The possibility of understanding the development of oral and written narrative competence is a key step to detect starting points useful to language and communication intervention and enhancement programs. If teachers are provided with a basis of skills underpinning written narrative competence, they can integrate such knowledge in classroom practices (Boscolo & Gelati, 2019), since they can have a clear idea of in which domains children need further support and in which phases of development. These findings support the importance of teaching and supporting oral narrative competence, as well as automaticity in writing especially in the early

years of schooling, to aid the development of the subsequent writing processes. In light of the results, since the period of emergent literacy, it would be important to enhance notational skills. This does not mean anticipating the formalized teaching of writing but rather promoting a broad and intense familiarization with the various notational systems (written signs, drawing, gestures, musical notation, etc.), which permeate the communicative universe. Later in primary school, it would be important to support the practice of oral narrative skills, which currently, at least in the Italian school, is rarely practiced to the advantage of an intensive exercise of writing. This is in order both to enrich a pivotal ability for the transition to effective story writing and to motivate children, especially those in difficulty, to continue producing a type of text of invaluable value in their social life. Primary school children will be given not only repetitive writing exercises but also opportunities for reinforcing the link between oral and written language and enrichment of the lexical repertoire (Gómez Vera et al., 2016), whose effectiveness on transcription skills is documented (Bigozzi & Biggeri, 2000; Bigozzi et al., 2009). Let us not forget that narratives constitute a practice of discourse that makes it possible to efficiently participate in conversations, to explain things and events and to communicate stories and personal experiences to others, and to develop knowledge and use of the language of the mind (Accorti Gamannossi & Pinto, 2014; Guajardo & Watson, 2002; Lecce et al., 2014). Narrative competence has assumed relevance with respect to the clinical settings, since it constitutes a significant means through which to identify both communication disorders and language impairments (Diehl et al., 2006). The notion of a "writing cure" (Lepore & Smyth 2002) and the thesis about the beneficial effects of writing on physical and mental health, which suggest noncontroversial positive outcomes of writing, has been scientifically developed and empirically verified. The more the educational intervention enhances its competence and use, the more literacy will unfold its effects of enriching development, in all its aspects.

References

Accorti Gamannossi, B., & Pinto, G. (2014). Theory of mind and language of mind in narratives: Developmental trends from kindergarten to primary school. *First Language, 34*(3), 262–272.

Altemeier, L. E., Abbott, R. D., & Berninger, V. W. (2008). Executive functions for reading and writing in typical literacy development and dyslexia. *Journal of Clinical and Experimental Neuropsychology, 30*(5), 588–606.

Alves, R. A., Castro, S. L., & de Sousa, L. (2007). Influence of typing skill on pause–execution cycles in written composition. In G. Rijlaarsdam, (Series Ed.); M. Torrance, L. van Waes, & D. Galbraith (Volume Eds.), *Writing and cognition: Research and applications* (Studies in writing, Vol. 20, pp. 55–65). Brill Nijhoff, Brill.

Angelelli, P., Notarnicola, A., Judica, A., Zoccolotti, P., & Luzzatti, C. (2010). Spelling impairments in Italian dyslexic children: Phenomenological changes in primary school. *Cortex, 46*(10), 1299–1311.

Babayiğit, S., & Stainthorp, R. (2011). Modeling the relationships between cognitive–linguistic skills and literacy skills: New insights from a transparent orthography. *Journal of Educational Psychology, 103*(1), 169–189.

Bamberg, M. (2006). Stories: Big or small: Why do we care? *Narrative Inquiry, 16*(1), 139–147.
Bamberg, M. (2016). Narrative inquiry. *The International Encyclopedia of Communication Theory and Philosophy*, 1–9.
Bereiter, C., & Scardamalia, M. (1987). An attainable version of high literacy: Approaches to teaching higher-order skills in reading and writing. *Curriculum Inquiry, 17*(1), 9–30.
Berman, R. A., & Slobin, D. I. (1994). *Relating events in narrative: A crosslinguistic developmental study*. Lawrence Erlbaum Associates.
Berninger, V. W. (2000). Development of language by hand and its connections with language by ear, mouth, and eye. *Topics in Language Disorders, 20*, 65–84.
Berninger, V., & Amtmann, D. (2003). Preventing written expression disabilities through early and continuing assessment and intervention for handwriting and/or spelling problems: Research into practice. In H. Swanson, K. Harris, & S. Graham (Eds.), *Handbook of learning disabilities* (pp. 323–344). The Guilford Press.
Berninger, V. W., & Swanson, H. L. (1994). *Modifying Hayes and Flower's Model of Skilled Writing.* In E. Butterfield (Ed.), Children's Writing; Toward a Process Theory of Development of Skilled Writing (pp. 57–81). Greenwich, CT: JAI Press.
Berninger, V. W., & Winn, W. D. (2006). Implications of advancements in brain research and technology for writing development, writing instruction, and educational evolution. In C. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 96–114). The Guilford Press.
Berninger, V., Yates, C., Cartwright, A., Rutberg, J., Remy, E., & Abbott, R. (1992). Lower-level developmental skills in beginning writing. *Reading and Writing: An Interdisciplinary Journal, 4,* 257–280.
Berninger, V. W., Cartwright, A. C., Yates, C. M., Swanson, H. L., & Abbott, R. D. (1994). Developmental skills related to writing and reading acquisition in the intermediate grades. *Reading and Writing, 6*(2), 161–196.
Berninger, V. W., Vaughan, K., Abbott, R. D., Begay, K., Coleman, K. B., Curtin, G., et al. (2002). Teaching spelling and composition alone and together: Implications for the simple view of writing. *Journal of Educational Psychology, 94*(2), 291–304.
Berninger, V. W., Abbott, R. D., Thomson, J., Wagner, R., Swanson, H. L., Wijsman, E. M., & Raskind, W. (2006). Modeling phonological core deficits within a working memory architecture in children and adults with developmental dyslexia. *Scientific Studies of Reading, 10*(2), 165–198.
Bigozzi, L., & Biggeri, A. (2000). Influenza dello sviluppo lessicale sulla correttezza ortografica: Effetti di un trattamento su alunni di terza e quarta elementare [Influence of lexical development on spelling correctness: Effects of a treatment on third and fourth graders]. *Psicologia Clinica dello Sviluppo, 4*(1), 65–96.
Bigozzi, L., & Vettori, G. (2016). To tell a story, to write it: developmental patterns of narrative skills from preschool to first grade. *European Journal of Psychology of Education, 31,* 461–477. https://doi.org/10.1007/s10212-015-0273-6
Bigozzi, L., Boschi, F., & Falaschi, E. (2009). *Lessico e ortografia: arricchimento del vocabolario, correttezza ortografica e abilità di lettura* [Vocabulary and spelling: vocabulary enrichment, correct spelling and reading skills]. Edizioni Erickson.
Bigozzi, L., Vettori, G., & Incognito, O. (2023). The role of preschoolers' home literacy environment and emergent literacy skills on later reading and writing skills in primary school: A mediational model. *Frontiers in Psychology, 14*, 1113822. https://doi.org/10.3389/fpsyg.2023.1113822
Bishop, D. V. (2004). *Expression, reception and recall of narrative instrument: ERRNI*. Harcourt Assessment.
Booth, J. R., Perfetti, C. A., & MacWhinney, B. (1999). Quick, automatic, and general activation of orthographic and phonological representations in young readers. *Developmental Psychology, 35*(1), 3–19.
Boscolo, P., & Gelati, C. (2019). Best practices in promoting motivation for writing. In S. Graham, C. MacArthur, & J. Fitzgerald (Eds.), *Best practices in writing instruction* (3rd ed.). Guilford.

Bruner, J. (1990). *Acts of meaning*. Harvard University Press.
Cameron, C. A., Pinto, G., Stella, C., & Hunt, A. K. (2020). A Day in the Life of young children drawing at home and at school. *International Journal of Early Years Education, 28*, 97–113. https://doi.org/10.1080/09669760.2019.1605887
Coltheart, M. (2000). Dual routes from print to speech and dual routes from print to meaning: Some theoretical issues. In A. Kennedy, R. Radach, D. Heller, & J. Pynte (Eds.), *Reading as a perceptual process* (pp. 475–490). Elsevier.
Coltheart, M., Rastle, K., Perry, C., Langdon, R., & Ziegler, J. C. (2001). DRC: a dual route cascaded model of visual word recognition and reading aloud. *Psychological Review, 108*, 204–256. https://doi.org/10.1037/0033-295x.108.1.204
Coltheart, M., & Rastle, K. (1994). Serial processing in reading aloud: Evidence for dual-route models of reading. *Journal of Experimental Psychology: Human Perception and Performance, 20*(6), 1197–1211.
Damico, J., & Ball, M. J. (2008). Sociolinguistics. In M. J. Ball, M. Perkins, N. Muller & S. Howard (Eds.), *Handbook of clinical linguistics* (pp. 107–129). Blackwell.
Diehl, J. J., Bennetto, L., & Young, E. C. (2006). Story recall and narrative coherence of high-functioning children with autism spectrum disorders. *Journal of Abnormal Child Psychology, 34*(1), 83–98.
Dockrell, J. E., Lindsay, G., & Connelly, V. (2009). The impact of specific language impairment on adolescents' written text. *Exceptional Children, 75*(4), 427–446.
Dockrell, J. E., Connelly, V., Walter, K., & Critten, S. (2015). Assessing children's writing products: The role of curriculum based measures. *British Educational Research Journal, 41*(4), 575–595.
Fayol, M., Hupet, M., & Largy, P. (1999). The acquisition of subject-verb agreement in written French: From novices to experts' errors. *Reading and Writing, 11*(2), 153–174.
Ferreiro, E., Teberosky, A. (1982). *Literacy before schooling.* Heinemann. (Original work published in 1979)
Flower, L., & Hayes, J. R. (1980). The cognition of discovery: Defining a rhetorical problem. *College Composition and Communication, 31*(1), 21–32.
Frith, U. (1985). Beneath the surface of developmental dyslexia. In K. Patterson, J. Marshall, & M. Coltheart (Eds.), *Surface dyslexia: Neuropsychological and cognitive studies of phonological reading* (pp. 301–330). Lawrence Erlbaum Erlbaum.
Georgakopoulou, A. (2006). Thinking big with small stories in narrative and identity analysis. *Narrative Inquiry, 16*(1), 122–130.
Gibson, E. J., & Levin, H. (1975). *The psychology of reading*. The MIT Press.
Gómez Vera, G., Sotomayor, C., Bedwell, P., Domínguez, A. M., & Jéldrez, E. (2016). Analysis of lexical quality and its relation to writing quality for 4th grade, primary school students in Chile. *Reading and Writing, 29*(7), 1317–1336.
Graham, S. (1982). Written composition research and practice: A unified approach. *Focus on Exceptional Children, 14*(8), 1–16.
Graham, S., & Harris, K. R. (1996). *Self-regulation and strategy instruction for students who find writing and learning challenging.* In C. M. Levy, & S. Randsdell (Eds.). The science of writing: Theories, methods, individual differences, and applications (pp. 347–360). Erlbaum.
Graham, S., & Harris, K. R. (2000). The role of self-regulation and transcription skills in writing and writing development. *Educational Psychologist, 35*(1), 3–12.
Graham, S., & Harris, K. R. (2006). Strategy instruction and the teaching of writing. *Handbook of Writing Research, 5*, 187–207.
Graham, S., Berninger, V. W., Abbott, R. D., Abbott, S. P., & Whitaker, D. (1997). Role of mechanics in composing of elementary school students: A new methodological approach. *Journal of Educational Psychology, 89*, 170–182.
Graham, S., Harris, K. R., & Chorzempa, B. F. (2002). Contribution of spelling instruction to the spelling, writing, and reading of poor spellers. *Journal of Educational Psychology, 94*(4), 669.
Guajardo, N. R., & Watson, A. C. (2002). Narrative discourse and theory of mind development. *The Journal of Genetic Psychology, 163*(3), 305–325.

Hall, A. H., Simpson, A., Guo, Y., & Wang, S. (2015). Examining the effects of preschool writing instruction on emergent literacy skills: A systematic review of the literature. *Literacy Research and Instruction, 54*(2), 115–134.

Halliday, M. A. K., & Hasan, R. (1976). *Cohesion in English*. Longman.

Hayes, J. R. (2012). Modeling and remodeling writing. *Written Communication, 29*(3), 369–388.

Hayes, J. R., & Flower, L. S. (1980). Identifying the organization of writing process. In L.W. Gregg e E.R. Steinberg (Eds.), *Cognitive processes in writing,* Lea.

Hudson, J. A., & Shapiro, L. R. (1991). From knowing to telling: The development of children's scripts, stories, and personal narratives. In A. McCabe & C. Peterson (Eds.), *Developing narrative structure* (pp. 89–136). Lawrence Erlbaum Associates.

Incognito, O., Bigozzi, L., Vettori, G., & Pinto, G. (2021). Efficacy of two school-based interventions on notational ability of bilingual preschoolers: A group-randomized trial study. *Frontiers in Psychology, 12*, 686285. https://doi.org/10.3389/fpsyg.2021.686285

Juel, C., Griffith, P. L., & Gough, P. B. (1986). Acquisition of literacy: A longitudinal study of children in first and second grade. *Journal of Educational Psychology, 78*(4), 243–255.

Justice, L. M., Bowles, R. P., & Skibbe, L. E. (2006). Measuring preschool attainment of print-concept knowledge: A study of typical and at-risk 3- to 5-year-old children using item response theory. *Language, Speech, and Hearing Services in Schools, 37*(3), 224–235.

Kellogg, R. T. (1988). Attentional overload and writing performance: Effects of rough draft and outline strategies. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 14*(2), 355.

Kellogg, R. T. (1996). A model of working memory in writing. In M. Levy & S. Ransdell (Eds.), *The science of writing: Theories, methods, individual differences, and applications* (pp. 57–71). Lawrence Erlbaum Associates.

Kintsch, W. (1988). The role of knowledge in discourse comprehension: A construction-integration model. *Psychological Review, 95*(2), 163–182.

Laughton, J. M., & Morris, N. T. (1989). Story grammar knowledge of learning disabled students. *Learning Disabilities Research, 4*, 87–95.

Lecce, S., Bianco, F., Devine, R. T., Hughes, C., & Banerjee, R. (2014). Promoting theory of mind during middle childhood: A training program. *Journal of Experimental Child Psychology, 126*, 52–67.

Lepore, S. J., & Smyth, J. (eds.) (2002). *The writing cure: How expressive writing influences health and well-being*. American Psychological Association.

Levelt, W. J. M. (1989). *Speaking: From intention to articulation*. MIT Press.

Longcamp, M., Boucard, C., Gilhodes, J. C., Anton, J. L., Roth, M., Nazarian, B., & Velay, J. L. (2008). Learning through hand-or typewriting influences visual recognition of new graphic shapes: Behavioral and functional imaging evidence. *Journal of Cognitive Neuroscience, 20*(5), 802–815.

Lonigan, C. J., Burgess, S. R., & Anthony, J. L. (2000). Development of emergent literacy and early reading skills in preschool children: Evidence from a latent-variable longitudinal study. *Developmental Psychology, 36*(5), 596–613.

Mäkinen, L., Loukusa, S., Nieminen, L., Leinonen, E., & Kunnari, S. (2014). The development of narrative productivity, syntactic complexity, referential cohesion and event content in four-to eight-year-old Finnish children. *First Language, 34*(1), 24–42.

McCutchen, D. (1996). A capacity theory of writing: Working memory in composition. *Educational Psychology Review, 8*(3), 299–325.

McCutchen, D., & Crain-Thoreson, C. (1994). Phonemic processes in children' s reading comprehension. *Journal of Experimental Child Psychology, 58*(1), 69–87.

Montague, M., Maddux, C. D., & Dereshiwsky, M. I. (1990). Story grammar and comprehension and production of narrative prose by students with learning disabilities. *Journal of Learning Disabilities, 23*(3), 190–197.

Nelson, N. W., & Van Meter, A. M. (2007). Measuring written language ability in narrative samples. *Reading & Writing Quarterly, 23*(3), 287–309.

Notarnicola, A., Angelelli, P., Judica, A., & Zoccolotti, P. (2012). Development of spelling skills in a shallow orthography: The case of Italian language. *Reading and Writing, 25*(5), 1171–1194.

Olive, T., & Kellogg, R. T. (2002). Concurrent activation of high-and low-level production processes in written composition. *Memory & Cognition, 30*(4), 594–600.

Ong, W. (2002). *Orality and literacy*. Methuen. (Original work published 1982).

Patterson, K. (1986). Lexical but nonsemantic spelling? *Cognitive Neuropsychology, 3*(3), 341–367.

Pinto, G., Bigozzi, L., Accorti Gamannossi, B., & Vezzani, C. (2009). Emergent literacy and learning to write: A predictive model for Italian language. *European Journal of Psychology of Education, 24*, 61–78.

Pinto, G., Accorti Gamannossi, B., & Ann Cameron, C. (2011). From scribbles to meanings: Social interaction in different cultures and the emergence of young children's early drawing. *Early Child Development and Care, 181*, 425–444. https://doi.org/10.1080/03004430903442001

Pinto, G., Bigozzi, L., Gamannossi, B. A., & Vezzani, C. (2012). Emergent literacy and early writing skills. *The Journal of Genetic Psychology, 173*(3), 330–354.

Pinto, G., Tarchi, C., & Bigozzi, L. (2015). The relationship between oral and written narratives: A three-year longitudinal study of narrative cohesion, coherence, and structure. *British Journal of Educational Psychology, 85*, 551–569.

Pinto, G., Bigozzi, L., Tarchi, C., & Camilloni, M. (2018). Improving conceptual knowledge of the Italian writing system in kindergarten: A cluster randomized trial. Frontiers in Psychology, 9, 1396. https://doi.org/10.3389/fpsyg.2018.01396

Pinto, G., Tarchi, C., & Accorti Gamannossi, B. (2018a). Kindergarteners' narrative competence across tasks and time. *The Journal of Genetic Psychology, 179*(3), 143–155.

Pinto, G., Tarchi, C., & Bigozzi, L. (2018b). Is two better than one? Comparing children's narrative competence in an individual versus joint storytelling task. *Social Psychology of Education, 21*(1), 91–109.

Reilly, J., Losh, M., Bellugi, U., & Wulfeck, B. (2004). "Frog, where are you?" narratives in children with specific language impairment, early focal brain injury, and Williams syndrome. *Brain and Language, 88*(2), 229–247.

Schneider, P., & Dubé, R. (1997). Effect of pictorial versus oral story presentation on children's use of referring expressions in retell. *First Language, 17*(51), 283–302.

Schneider, P., Hayward, D., & Dubé, R. V. (2006). Storytelling from pictures using the Edmonton narrative norms instrument. *Journal of Speech Language Pathology and Audiology, 30*(4), 224–238.

Sénéchal, M., & LeFevre, J. A. (2002). Parental involvement in the development of children's reading skill: A five-year longitudinal study. *Child Development, 73*(2), 445–460.

Shapiro, L. R., & Hudson, J. A. (1991). Tell me a make-believe story: Coherence and cohesion in young children's picture-elicited narratives. *Developmental Psychology, 27*(6), 960–974.

Singer, B. D., & Bashir, A. S. (2004). Developmental variations in writing composition skills. In *Handbook of language and literacy: Development and disorders* (pp. 559–582). Guilford Press.

Spinillo, A. G., & Almeida, D. D. (2014). Understanding narrative and argumentative texts: Is there any difference? *Arquivos Brasileiros de Psicologia, 66*(3), 115–132.

Spinillo, A. G., & Pinto, G. (1994). Children's narratives under different conditions: A comparative study. *British Journal of Developmental Psychology, 12*(2), 177–193.

Struthers, L., Lapadat, J. C., & MacMillan, P. D. (2013). Assessing cohesion in children's writing: Development of a checklist. *Assessing Writing, 18*(3), 187–201.

Sulzby, E. (1985). Children's emergent reading of favorite storybooks: A developmental study. *Reading Research Quarterly, 20*(4), 458–481.

Sulzby, E., & Teale, W. (1991). Emergent literacy. *Handbook of reading research, 2*, 727–757.

Swanson, H. L., & Berninger, V. W. (1996). Individual differences in children's working memory and writing skill. *Journal of Experimental Child Psychology, 63*(2), 358–385.

Tainturier, M. J., Bosse, M. L., Valdois, S., & Rapp, B. (2000). Lexical neighbourhood effects in nonword spelling. Presented at the *Annual Meeting of the Psychonomic Society, New Orleans, November*.

To, C. K. S., Stokes, S. F., Cheung, H. T., & T'sou, B. (2010). Narrative assessment of Cantonese-speaking children. *Journal of Speech, Language, and Hearing Research, 53*, 648–669.

Tolchinsky, L., & Solé, I. (2009). Las condiciones del aprendizaje de la lengua escrita [The conditions of learning the written language]. *Infancia y Aprendizaje, 32*(2), 131–140.

Torrance, M., & Jeffery, G. C. (1999). Writing processes and cognitive demands. In M. Torrance & G. C. Jeffery (Eds.), *The cognitive demands of writing: Processing capacity and working memory in text production* (pp. 1–11). Amsterdam University Press.

Vettori, G., Bigozzi, L., Incognito, O., & Pinto, A. G. (2022a). Relationship between oral narrative and vocabulary skills among bilingual language-minority children and their monolingual peers in primary school. *International Journal of Bilingualism*, Advance online publication, 136700692210890.

Vettori, G., Bigozzi, L., Incognito, O., & Pinto, G. (2022b). Contribution of oral narrative textual competence and spelling skills to written narrative textual competence in bilingual language minority children and monolingual peers. *Frontiers in Psychology, 13*, 946142. https://doi.org/10.3389/fpsyg.2022.946142

Vygotskij, L. (1962). Thinking and speaking. *Vygotskiy LS Sobranie sochinenii*, 5–361.

Wengelin, Å., Torrance, M., Holmqvist, K., Simpson, S., Galbraith, D., Johansson, V., & Johansson, R. (2009). Combined eyetracking and keystroke-logging methods for studying cognitive processes in text production. *Behavior Research Methods, 41*(2), 337–351.

Westerveld, M. F., Gillon, G. T., & Miller, J. F. (2004). Spoken language samples of New Zealand children in conversation and narration. *Advances in Speech Language Pathology, 6*(4), 195–208.

Whitehurst, G. J., & Lonigan, C. J. (1998). Child development and emergent literacy. *Child Development, 69*(3), 848–872.

Chapter 7
Grammatical Choices and Narrative Quality in the Collaborative Writing of Primary School Students

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7.1 Introduction

Collaborative writing has been experienced and pointed out as a strong pedagogical tool leading to dialogues when students make their grammar and text choices explicit, discuss and refine their linguistic knowledge within the process. When put into place at an early age, advantages shall increase in what concerns metalinguistic knowledge and the quality of writing.

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In the present study, we are then putting together different axis related to grammar and writing learning and teaching. Although no one would doubt that a better text would rely on a wider grammar knowledge and performance, the relation between these language domains isn't still clear until today in what concerns language teaching. Therefore, we bring to our reflection not only the value of metalinguistic knowledge but also the place it has had in our country (in the years of our data collection until today), considering the official language teaching guidelines. Not only we will consider grammar but also writing and the pedagogical relationship recommended officially.

Considering the impact of metalinguistic knowledge in the quality of writing leads us to reflect on complex parameters guiding the evaluation of a specific text, affiliated with a particular genre.

In the present study, we will be interested then in looking at the development of metalinguistic knowledge in children, by observing their writing process, as well as in assessing the quality of their writing, by observing their written products. The same students were recorded while writing stories in pairs at grades 2 and 4, in the classroom. Data were collected through a multimodal capture system – the Ramos system (Calil, 2020) – which provides us with information of the writing process as well as the written final texts.

Data samples of this corpus have been selected to study specific dimensions, such as the elaboration of titles (Barbeiro et al., 2020), lexical density (Costa et al., 2020), the recognition of spelling mistakes (Calil & Pereira, 2018), metalinguistic categories and terms emergent in the writing/revision processes, and how these are (not) translated into textual modifications, considering the discursive or grammatical nature of the operations of language re(construction) (Barbeiro et al., 2022; Calil & Myhill, 2020).

Now our analysis is focused, on one hand, on the occurrence of metalinguistic terms during collaborative writing; on the other hand, we focused on the textual product, the stories effectively written, measuring their quality in what concerns the compositional aspects of writing narratives in the first years of schooling. Therefore, we aim to understand better the relationship between a metalinguistic reflection and the quality of the text.

As Costa and Rodrigues (2019, p. 25) state, "It thus becomes essential to conduct research in at least two fields: research on language development and research on grammar didactics". The study presented here, following the previous ones mentioned before, is precisely trying to contribute to the field of grammar-writing articulation, by trying to apprehend the dimensions of language and texts that are the object of reflection and decision, by the same children, in two different moments of their basic schooling (grade 2 and grade 4), during the collaborative writing process of a text: Is grammatical knowledge, namely, using metalinguistic terms (MT), activated during the writing process; in relation to which domains; with what functions; and what impact will children's "grammatical dialogues" have on the quality of their texts?

We will address first the several theoretical subjects mentioned to pursue with the methodology and analysis of the data considered for this reflection, oriented to answer the mentioned questions.

7.2 Metalinguistic Knowledge and Metalinguistic Activity

Recent studies, from a functionalist (Halliday & Matthiessen, 2014) and sociocultural (Vygotsky, 1986) perspective, argue that grammar learning is related to the ability of observing, manipulating and reflecting about the written text (Chen & Jones, 2012; Fontich, 2016; Myhill, 2011). These and other studies on grammar teaching understand that explicit instruction is an essential component to highlight grammar as an object of knowledge to be analysed. This object is based on two pillars: (a) knowledge of the "grammar structure", identifying and analysing the linguistic elements that compose it; (b) and the understanding of "grammar as choice", which will allow the articulation of linguistic elements with the meaning effects they produce in the text. Both involve the explanation of metalinguistic knowledge, equally regarding knowledge of technical terms and their uses and functions.

These two pillars support the need for an intensification of learners' metalinguistic activities, mediated by the teacher (Myhill et al., 2012) or favoured by collaborative work among peers (Camps et al., 2000; Gil & Bigas, 2014). These activities indicate the way in which teachers and students take the language as an object of analysis, talking about it and its functioning. In this perspective, the situation of collaborative textual production has been highlighted as a school task of great importance, as it favours students, on the one hand, to identify problems related to certain linguistic elements during the writing process and, on the other hand, to explain the way of thinking about these problems.

Camps et al. (1997) propose that these metalinguistic activities can occur without being verbalized but also can occur through utterances of nontechnical terms or utterances, in which there are explanations of technical terms. In the works of Calil (2017) and Calil and Pereira (2018), some metalinguistic activities were identified during collaborative textual production, when pairs of students from the 1st and 2nd year of primary education write a single text. These activities are associated with metalinguistic returns made by writing students when they recognize some type of graphic, linguistic or discursive problem.

Calil (2012) characterized these occurrences as "tension points" between elements to be graphed or linearized on the sheet of paper. These recognitions can produce erasures or be associated with student's comments about these elements. Calil and Pereira (2018) show, for example, comments on the use of capital letters, when a 2nd year student is about to spell the name of the character "Branca de Neve" ("Snow White"). The writer student expresses doubts about the capital or small form of the initial letter, giving her dictating partner the opportunity to respond: "No. No. It's capital, too." (Calil & Pereira, 2018, p. 106). In this comment, the MT was verbalized, but no explanation was presented to support or justify her assertion. However, the comment indicates that the student has implicit knowledge about capitalization rules. Another form of occurrence of metalinguistic comments brings a greater verbalization of the student's knowledge, however, without using MT. For example, in the comment made by a student, in response to his partner's spontaneous question about which article to use in a character's speech, he

says, emphasizing the indefinite article: "it was A boy. We don't know which boy it was." (Barbeiro et al., 2022, p. 66). This suggests that the commentary, despite not indicating the knowledge of the specific MT, explains the student's metalinguistic knowledge about the value and the meaning effect produced by the indefinite article, thus avoiding the inscription of the definite article and, consequently, the referencing problem that the use of the definite article could produce in the sense of the text (and in the reader).

7.3 Teaching Writing and Grammar in Portugal: Guidelines Since 2009

In the teaching of Portuguese, one of the issues that has provoked and still raises debate is the question of the status and functions of grammatical knowledge in language learning. In the context of this study, it is about making known what objectives and functions are attributed not only to grammar but also to writing, having as reference the Portuguese Programs of Basic Education, in general, and of the 1st Cycle of the Basic Education, in particular. In this way, we seek to put into perspective the teaching of these two skills and the articulation that the programs provide. We will consider the program in force at the time our data were collected (2015 and 2017), which were the *Programas de Português do Ensino Básico* (Reis et al., 2009) and those that replaced them, in 2015: *Programa e Metas Curriculares de Português do Ensino Básico* (Buescu et al., 2015). From an accumulation of references (Costa, 2020), a reform began, in line with international guidelines, expressed in the *Perfil dos alunos à saída da escolaridade obrigatória (PA)* [Profile of students leaving compulsory education] (Martins et al., 2017), with which the *Aprendizagens Essenciais (AE)* [Essential Learning goals] later articulated, by subject and year of schooling (Direção-geral da Educação, 2018). These AE are currently the national curricular references; however, we will mention them more briefly because, at the time of the fieldwork that is important here, they had not yet been brought to existence.

In the 2009 Portuguese Programs (Reis et al., 2009), grammar appears as an autonomous competence, contrasting with the more instrumental and transversal vision of the previous programs (Ministério da Educação, 1991). This difference is not unrelated to the designation adopted in 2009 for grammar, "explicit knowledge of language" (CEL, abbreviated in Portuguese), when, in 1991, it was called "language functioning". This conception of grammar assumed in the 2009 guidelines, following the National Curriculum for Basic Education (CNEB) of 2001 (Ministério da Educação, 2001), restores grammar as an essential competence alongside other competences, emphasizing its specificity, without disregarding its transversality already highlighted. Effectively, in this domain, it was advocated the evolution of students from the implicit knowledge that they already had about the language to an explicit knowledge, understood as "the reflected ability to systematize units, rules

and grammatical processes of the language, leading to the identification and correction of the language error" (Reis et al., 2009, p. 16). It was recognized, then, that explicit knowledge can only be based on formal instruction, implying the development of metacognitive processes. Thus, it was recommended that grammar classes create conditions for the development of such linguistic knowledge, with a progressive ability to use the language proficiently, anchored in the ability to describe and analyse its functioning:

> A análise e a reflexão sobre a língua concretizam-se quer em actividades nos domínios do modo oral e do modo escrito, quer em trabalho oficinal. Trata-se, deste modo, de desenvolver a consciência linguística, no sentido de transformar o conhecimento implícito em conhecimento explícito da língua. (Reis et al., 2009, p. 23)
>
> Our translation: *The analysis and reflection on the language take the form of oral and written activities, as well as in workshop work. It is, therefore, about developing linguistic awareness, in the sense of transforming implicit knowledge into explicit knowledge of the language.* (Reis et al., 2009, p. 23)

In terms of written communication, the 2009 Guidelines emphasize its multimodality and multifunctionality, genre and typological diversity, as well as the requirements in terms of grammatical correction and the high metacognitive management that it entails, namely, the subprocesses that lead to textual production (planning, textualization, revision). The complexity of this competence justifies the role assigned to the teacher, organizer and regulator of teaching-learning activities of writing. It is also recommended to articulate the "writing work with the different plans of the CEL" (Reis et al., 2009, p. 44), in stages that involve:

> i) a observação, manipulação e comparação de dados para descobrir regularidades no funcionamento da língua; ii) a sistematização e explicitação dessas regularidades com recurso oportuno à metalinguagem e iii) a mobilização dos conhecimentos adquiridos na compreensão e produção de textos orais e escritos. (Barbeiro et al., 2022, p. 50)
>
> Our translation:
> i) the observation, manipulation, and comparison of data to discover regularities in the functioning of the language; ii) the systematization and explanation of these regularities with timely use of metalanguage and iii) the mobilization of acquired knowledge in the understanding and production of oral and written texts. (Barbeiro et al., 2022, p. 50)

Suggestions of activities for the different grammatical domains are included (Ministério da Educação, 2008); it is assumed to be essential the work in a workshop mode and a "scientific" reflection about the language, in oral and written communicative situations, emphasizing that the language regulations are at the service of communication and cannot be neglected or taught in a watertight way and focused on the memorization of concepts (Barbeiro et al., 2022).

In the 2015 Program (Buescu et al., 2015), which was in force until the end of the 2020/2021 school year, the CEL gave way to the designation of "grammar", in a perspective that was once again more instrumental in terms of knowledge and the ability to reflection on the regularities of language, those being subsidiary to the autonomy in the use of rules in situations of oral and written comprehension and

production. It is hoped, therefore, students develop a metalinguistic awareness that will allow them for a reflective knowledge of their mother tongue (Buescu et al., 2015, p. 8).

In terms of writing, the following values are highlighted again: the transversality of linguistic correction; the different purposes attached to different genres, on which different thematic, textual and discursive developments depend, with emphasis on expository and argumentative genres; and the stages of textual production, which will open doors to reflection on the language that some programmatic documents advocate.

The current programmatic references (PA and AE) corroborate the idea of the gradual development of linguistic awareness through reflection and discovery, leading to the mastery of rules governing the various oral and written uses. They emphasize both the curricular articulation and the complementarity of domains of language use – here we are interested in writing and grammar – and the need to work each one in its specificity.

As several studies have pointed out, the main challenge seems to be precisely knowing how to teach the specific knowledge of each domain, in this case, grammar and writing, effectively articulating them (as well as other skills) (Barbeiro et al., 2022; Bulea Bronckart, 2015; Chartrand, 2017; Pereira, 2000; Rättyä et al., 2019; da Silva, 2016). Integrative didactic methodologies have recently emerged, based on classroom interaction, with the teacher being the most qualified mediator to stimulate metalinguistic discussion (Fontich, 2014; Myhill & Jones, 2015) as well as, among us, some investigation about the didactic possibilities of articulation between grammar and other domains (Costa & Batalha, 2019). For our part, we will look for the data that emerge from the collaborative writing processes of children to provide clues for the teaching of these domains.

7.4 Collaborative Writing

As previous mentioned, the complex nature of the writing process, as a cognitive activity, has long been indisputable, since this process does not result from the simple sequential addition of units until the final product is reached. Learning to write a coherent and effective text represents an arduous and time-consuming achievement of cognitive development, contrary to what happens with the acquisition of speech, hence the importance of adopting specific and productive paths that help the student to follow his/her path in the writing learning process. One of these paths has been, precisely, the collaborative writing – in pairs, in groups or with the entire class – which research as shown that has been very fruitful helping students identifying and correcting mistakes (Chanquoy, 2009).

Research, articulating writing with grammar, has also explored this pedagogical-didactic procedure of collaboration, analysing the way in which each writer can consciously operate these units, making strategic and appropriate choices (Myhill, 2018). Collaborative writing thus leads to a more thorough reflection, which requires

the presentation of justifications in terms of the grammar of the language and texts, leading students to a more explicit grammatical knowledge, which allows them to become more aware of the language itself (Myhill, 2018), skill which will later be accessed in other individual writing situations.

Therefore, collaborative writing represents the process that offers participants the possibility to explore, discuss, cooperate and develop learning skills (Fernández Dobao, 2012; Heidar, 2016; Noël & Robert, 2004). As Vygotsky said, social interaction precedes development, with consciousness and cognition being the final product of socialization and social behaviour. Collaborative writing is thus based on the Vygotskian idea of the vital importance of cooperation with others, so that there is an exchange of ideas and, consequently, quality learning and solid growth (Heidar, 2016). Then, collaborative writing is a way to enable access to the metalinguistic activity (Camps, 2019).

In fact, the situation of collaborative writing, in a larger or smaller group, offers unique possibilities for interaction and for the construction of knowledge – about writing, in our case. Although students, from an early age, have this ability to reflect and discuss different writing alternatives, the teacher's action can really be decisive in the development of this metalinguistic competence, stimulating and guiding the students to go further in the goal activity (Camps et al., 2000; Myhill et al., 2020).

7.5 Evaluating Writing Quality at School

Evaluating and pondering are everyday activities that have implications for our decisions, our view of the world and our positioning towards ourselves and the others. We constantly evaluate actions, and this includes the production of discourse, whether in the form of oral transmission or in its written form. It is in school that the process of evaluating discourse becomes even more systematic, consequential and fundamental, especially in language classes. The evaluation of the quality of the writing of a text is a complex process, not limited to the verification of the grammatical correctness of the sentences that compose it:

> A gramática pode (e provavelmente deve) ser estudada e avaliada em si mesma. Mas quando o objeto de análise é o texto, o que importa saber (compreender, saber fazer) e avaliar é o que cada estudante ou cada pessoa é capaz de fazer com os instrumentos gramaticais de que dispõe. (Coutinho, 2019, p. 116)
>
> Our translation:
>
> Grammar can (and probably should) be studied and evaluated in itself. But when the object of analysis is the text, what matters to know (understand, know how to do) and evaluate is what each student or each person can do with the grammatical tools at his/her disposal. (Coutinho, 2019, p. 116)

In the teaching-learning process of writing, several possible strategies have been pointed out (e. g. Barbeiro & Pereira, 2007; Pereira & Cardoso, 2013), focusing on the multiplicity of skills required in the several stages of the construction of a good

quality written text. To this complexity, one must add the consideration of the conditions of textual elaboration, such as the objectives of the production, its implicit reader, the space of circulation of the text, the level of formality, the textual genre (Marcuschi, 2007, p. 63).

Narrative sequences have their own properties and macro-propositional structure. Adam (1992, pp. 57–66) proposes that a narrative sequence is composed of the following macro-positions: initial situation (in which the general framework, the characters, the time and the space in which the action takes place are presented), complication (includes the triggering node that alters the balance and stability of the initial situation), (re)actions (encompasses the episodes triggered by the perturbation), resolution (phase that includes the climax followed by the reduction of the tension) and final situation (which frames the protagonist in a new stable context). In addition to mastering the textual structure and the plot of the story, the students' narrative skills include the harmonious interconnection of the various categories of narrative, such as the characters and their characterisation, space and time and the narrator.

Given the importance of texts as means of communication, vital for proper social integration, it is essential that teachers are able to identify their pupils' writing difficulties as soon as possible, in order to prevent failure and demotivation from the very start of schooling, not only in language classes but also in all other school subjects. Thus, it is important for teachers to have an idea, from the outset, of what to expect at each age level and school stage of their students. Hence the importance of longitudinal studies in order to monitor learners' school progress and assess their written achievements. In Portugal, in addition to the instruments and indications provided by the Ministry of Education and by IAVE, the Institute for Educational Assessment, some researches have emerged proposing and testing assessment instruments and criteria for the various learning cycles, considering several parameters of writing quality. It is the case of MACE, Written Composition Assessment Measure, "a measure of observation built to evaluate the written composition of narrative texts in elementary education" (Oliveira et al., 2019, p. 570), which include the following six criteria: structure/organization, content, vocabulary, audience, grammatical conventions and originality (2019, p. 576).

To the complexity inherent to the process of assessing the written product, it is necessary to consider the writing process, especially in primary education:

> Há que ter presente que na avaliação da capacidade de expressão escrita se deverão considerar dois aspetos complementares e relacionados: o produto escrito, ou os textos que um aluno é capaz de escrever, e o processo de composição, ou o método de trabalho […] para produzi-los. Nos alunos do primeiro ciclo, o processo é muito importante, já que é nas suas idades que se fomentam e se formam os hábitos e as atitudes de composição. (Pereira & Azevedo, 2005, p. 101)

> Our translation:
>
> It should be borne in mind that in assessing the ability of written expression two complementary and related aspects should be considered: the written product, or the texts that a student is able to write, and the composition process, or the working method [...] to produce them. In primary school students, the process is very important, since it is at their age that

the habits and attitudes of composition are fostered and formed. (Pereira & Azevedo, 2005, p. 101)

In the present work, as mentioned before, we try to make a link between process and product, considering some aspects observed in them at two different school years in the same students. In particular, we were interested in observing the use, during the writing process, of specialized terms, evidence of an explicit knowledge of the language and to gauge a possible connection with a better final textual quality.

7.6 Methodology

7.6.1 Didactic Protocol and Data Collection

The material analysed in this study is part of a database built from the development of two Luso-Brazilian international cooperation projects (InterWriting project, 2015 and DIADE project, 2017). During the execution of the InterWriting project, six textual production tasks of a 2nd year basic education class (20 pupils) were recorded on video, through the Ramos System (Calil, 2020), during January and March 2015, in an urban school in the city of Aveiro. In the DIADE project, data were collected between January and March 2017, with the same class (18 children in 2017[1]), at that moment already in the 4th primary school year. Six textual production tasks were also recorded.[2]

In both moments (2nd year/2015 and 4th year/2017), the same didactic protocol was followed:

1. The class teacher presented the textual production proposal: to write, in pairs, an invented story.
2. The pair of students orally agreed on the story they were going to write.
3. After the combination, they asked the teacher for the smart pen and the sheet of paper to write the invented story (one of the students was responsible for writing and the other for dictating and, with each new task, these roles were alternated).
4. When they finished, they called the teacher to hand in the sheet of paper (depending on the didactic time of the class, if other students were still writing, the teacher could also ask them to reread what they had written, or draw a free drawing, until all the classmates had finished the task).

[1] Four students left the class due to emigration or other reasons, the remaining 16 from the original class. Two new pupils have joined the class and contributed to form the dyads. Nevertheless, only the eight dyads with no changes were considered for comparison.

[2] We thank all those involved in the two data collections. The collected material is part of the database of the ProTextos Group and the School Manuscript Lab (LAME) of the Federal University of Alagoas.

In all eight tasks presently considered, four collected in 2015 and four in 2017, equipment was installed for each pair of students (handcams positioned in front of the pair's desk, lapel microphones and digital recorders). Thus, for each pair, in both school years, we obtained material collected under the same technical and didactic conditions: same teacher, same class of students, same instruction (writing an invented story in pair work), same technical protocol for the filmic recording of the writing process in real time and same classroom space. All audiovisual material captured simultaneously – video and audio of the pair, film of the pen (manuscript in progress) and school manuscript – were synchronized, and a single media was generated (synchronized film). The multimodal characteristic of the synchronous-film makes it possible to register the pauses, erasures, verbalised linguistic terms, comments, rereadings, glances, gestures and the teacher's movements around the classroom, at the exact moment when the school manuscript is being constructed.

In this way, we have as object of analysis both the finished school manuscript and what was said by the students about the manuscript under construction.

7.6.2 Material and Categories of Analysis

For this study, we then selected part of the material of two pairs: the first (001) and the last (006) textual production of pair 3 (D3) and pair 5 (D5), carried out, respectively, in 2015 (2nd year) and 2017 (4th year).

The corpus composed of the filmic record of the four productions from D3 (2°D3T1, 2°D3T6, 4°D3T1, 4°D3T6) and the four from D5 (2°D5T1, 2°D5T6, 4°D5T1, 4°D5T6) was subjected to two types of analysis.

For the first analysis, a collection was made of the occurrences of metalinguistic terms (MT) verbalized by the students, from the transcription of the dialogue captured by the filmic record of each pair. As Barbeiro et al. (2022) proposed, the MT identified and quantified were subdivided among the following domains:

1. Text, genre and speech
2. Grammar
3. Spelling
4. Punctuation
5. Graphics

The second analysis established the narrative quality of the manuscripts, with the following five items as criteria:

1. Introduction with reference to "place" and "time"
2. Characterization of the characters
3. Conflict, actions and events
4. Use of dialogue
5. Outcome or conclusion

Table 7.1 Items analysed by the judges and respective evaluation criteria

Evaluated item	Assessment criteria		
	0 points	1 point	2 points
1. Introduction with reference to “place” and “time” (Defines an initial situation with marking of textual genre, indication of place and narrative time)	Does not provide any introduction	It only says when the story took place Or it only tells where the story took place Or only the character(s) of the story are mentioned	It tells when and where the story took place
2. Characterization of the characters (A physical and/or psychological description of the characters is given)	Characters are named but never described	There is physical description Or psychological	There is physical and psychological description
3. Conflict, actions and events (Starting from a triggering and destabilising element, events in which the characters get involved and which have consequences are reported)	The story is a mere compendium of descriptions of place and characters	There are conflicts and actions but no consequences	At least one conflict and one action are clearly explained as well as its consequence(s)
4. Use of dialogue (There are interventions of characters or dialogues between them)	There are no interventions or dialogue	There are interventions and/or dialogues but no punctuation marks or inadequate punctuation marks	There are interventions and/or dialogues with the correct punctuation marks at least at one point in the story
5. Outcome or conclusion (Ending of the story in coherence with the events lived by the characters or final situation established according to the events described)	The outcome does not exist or there is no finalisation of the story	The outcome is not consistent with the events described in the course of the story	The outcome is consistent with the events reported

These criteria were used for the judgement of ten qualified and anonymous judges (primary school teachers and teacher trainers). The judges were not informed to which school level nor to which pair each text corresponded to.[3] The judges scored each of the above items from a Likert scale (0–2). Grade 0 (zero) characterized the nonoccurrence of aspects related to the referred item; grade 1 (one) characterized the occurrence of at least one aspect related to the item, and grade 2 (two) characterized the detailed occurrence of each of the items – see Table 7.1 for more details. Thus, at most, each text could score 10 points (2 for each of the five criteria).

Within the scope of this study, we will further refer to the technical terms and nontechnical terms or expressions relating to the domain “text, genre and speech”

[3] Four texts of each dyad: T1D3, T2D5, T3D3, T4D5, T5D3, T6D5, T7D3 and T8D5.

and “punctuation”, as these domains are related to the narrative quality, scored by the 10 judges.

The emergence of MT about text, genre and speech as well as about punctuation and overall quality of the narrative are two aspects here confronted, in order to observe possible relations between the quality of the narrative and the verbalization of metalinguistic terms. Our hypothesis is that there may be some form of relationship between the quality of the narrative and the verbalizations of these MT.

7.7 Results

7.7.1 Children’s Metalinguistic Activity

In a previous study (Barbeiro et al., 2022), the first collaborative writing task (001 in 2015, grade 2, and in 2017, grade 4) by D3 and D5 was analysed (4 texts). Within this research, we have decided to compare the pupils’ performance in their first time writing together, with the one exhibited in the last collaborative task (006), in both grade 2 and 4, coming to a total of more 4 texts each dyad, as previously shown.

We revised the transcriptions of the dialogues between the students and reviewed the synchronized videos. We have conducted a survey of metalinguistic terms (MT) that occurred during the writing process, which comprises the entire text production task, that is, from step 1 of the didactic protocol (presentation of the proposal by the teacher) to step 4 (inscription and linearization of the invented story on the sheet of paper). The analysis included not only the speech of the students, in each task, but also the teachers’ speech, either when, at the beginning, presenting the instructions for carrying out the task or in later moments of possible interaction with the students of the dyads for clarification or assistance in solving problems. Results for teachers and students will be broken down. We have considered official metalanguage mentioned by all participants, as well as other terms that they refer with a grammatical nature, which are of consensual understanding within the task, although they do not correspond to grammatical terms. Table 7.2 presents the results of the quantitative

Table 7.2 Total of metalinguistic terms that occur in the interaction within the first collaborative writing task (001) in both years

	Grade 2			Grade 4			Subtotal		Subtotal – S		
Domains	D3	D5	T	D3	D5	T	S	T	2nd	4th	TOTAL
Text, genre and speech	7	7	7	29	14	36	57	43	14	43	**100**
Grammar	7	2		15	21	8	45	8	9	36	**53**
Spelling	30	40	2	34	60		164	2	70	94	**166**
Punctuation	16	11		61	26		114		27	87	**114**
Graphics		8	1	5	1	4	14	5	8	6	**19**
TOTAL	**60**	**68**	**10**	**144**	**122**	**48**	**394**	**58**	**128**	**266**	**452**

Adapted from Barbeiro et al. (2022, p. 61–62)

analysis regarding the occurrence of MT distributed by domains – text, genre and speech; grammar; spelling; punctuation; and graphics – by the writing processes analysed; according to each dyad (D3 and D5) and year of schooling (2nd or 4th); and by the authorship of the utterance in which the metalinguistic term is integrated (teacher, T, or students, S).

These results were previously disclosed (Barbeiro et al., 2022), but we will make a summary in order to compare them with the last collaborative writing task. One can observe in the table that the domains in which the occurrence of terms in the process is more frequent are spelling (166 occurrences) and punctuation (114 oc.) and the domain related to text, genre and speech (100 oc.), although in this last case, a considerable part of the occurrences (43 out of 100) is produced by the teachers, fundamentally integrated in the moment of presentation of the instructions for the accomplishment of the task. This explains the rise of terms such as "story" and "text" (Table 7.3). In the domain of spelling (Table 7.4), the terms corresponding to the indication of the name of the letters predominate (124 oc.), being only one

Table 7.3 Metalinguistic terms related to "text, genre and speech" that occur in the interaction within the first collaborative writing task (001) in both years

Domains and terms		Grade 2			Grade 4			Subtot. S vs. T		Subtot. S 2nd vs. 4th		Tot.
		D3	D5	T	D3	D5	T					
Text, genre and speech	Story	2	5	4	9	3	9	19	13	7	12	32
	Little story	1						1		1		1
	Text	1		2	5	3	12	9	14	1	8	23
	Title	1	2	1	2		4	5	5	3	2	11
	Free text					3	7	3	7		4	10
	Idea				5			5			5	5
	Creative writing						1		1			1
	Question	1				1		2		1	1	2
	Speech in a dialogue				2			2			2	2
	Comics					2		2			2	2
	Subject				1			1			1	1
	Story of adventure					1						
	Story of war				1			1			1	1
	Horror story				1			1			1	1
	Terrorist story				1			1			1	1
	Inside the story				1			1			1	1
	Writing						1		1			1
	Romance	1						1		1		1
	Storyteller				1			1			1	1
	Well-structured story						1		1			1
	Oriented story						1		1			1
	Character					1		1			1	1
Subtotal		**7**	**7**	**7**	**29**	**14**	**36**	**57**	**43**	**14**	**43**	**100**

Table 7.4 Metalinguistic terms related to "spelling" that occur in the interaction within the first collaborative writing task (001) in both years

Domains and terms		Grade 2			Grade 4			Subtot. S vs. T		Subtot. S 2nd vs. 4th		Tot.
		D3	D5	T	D3	D5	T					
Spelling	Letter names	20	33	1	17	53		123	1	53	70	124
	Letter				11			11			11	11
	Accent	3			1			4		3	1	4
	Cedilla		2			1		3		2	1	3
	"Hat" (circumflex accent)	2						2		2		2
	Big (letter)	1				2		3		1	2	3
	Small (letter)					1		1			1	1
	Initial (letter)				4			4			4	4
	Uppercase		1		1	1		3		1	2	3
	Written together		1					1		1		1
	Trace	3	2			1		6		5	1	6
	Little leg (referring to the design of letters)		1					1		1		1
	Part					1		1			1	1
	Little dash	1		1				1	1	1		2
Subtotal		**30**	**40**	**2**	**34**	**60**		**164**	**2**	**70**	**94**	**166**

performed by the teachers. Regarding punctuation (Table 7.5), the terms "period", "comma" and "dash" have a higher frequency.

The domain of grammar (Table 7.6) has a much lower frequency than the previous ones (53 oc., 8 produced by the teacher and 45 by the students). In this domain, the most frequent term is "noun", with 32 occurrences (31 made by students), followed by "phrase" (7 oc.) and by "word" (5 oc.), even if with incomparable less mentions. The graphical configuration (Table 7.7) is the domain with the lowest number of occurrences, 19: 14 from the responsibility of the students and five performed by the teacher.

When comparing the two levels of schooling, a quantitative increase in the number of MT mentioned in the interaction during the writing process can be observed, globally (from 128 oc. to 266 oc.). This increase occurs in most domains, except for spelling. The domain that registers the biggest raise is that of the punctuation (from 27 oc. to 87).

As for the diversity of MT, the comparison between the 2 years of schooling shows, in some domains, a widening of the range of terms cited. The domain in which this expansion is most notably observed is that of punctuation; in addition to the terms "full stop" or "period", "comma" and "dash", which occur in the 2nd grade, we testify the use of terms, such as paragraph, quotation mark, parentheses, exclamation mark, question mark and semicolon. In turn, in the grammatical domain, from the occurrences of the term "noun" (to refer to given names, students or characters), "word" and "sound", we move on to the inclusion of a set of other

Table 7.5 Metalinguistic terms related to "punctuation" that occur in the interaction within the first collaborative writing task (001) in both years

Domains and terms		Grade 2			Grade 4			Subtot. S vs. T		Subtot. S 2nd vs. 4th		Tot.
		D3	D5	T	D3	D5	T					
Punctuation	Full stop/period	12	9		10	6		37		21	16	37
	"Stop"	2			2	1		5		2	3	5
	Little dot				1			1			1	1
	Comma	1	2		15	6		24		3	21	24
	Dash				13	5		18			18	18
	Paragraph				7	3		10			10	10
	Two points				6	1		7			7	7
	Quotation marks				3			3			3	3
	Parentheses					2		2			2	2
	Exclamation mark				2	2		4			4	4
	Question mark				1			1			1	1
	Semicolon				1			1			1	1
	Trace (=dash)	1						1				
Subtotal		**16**	**11**		**61**	**26**		**114**		**27**	**87**	**114**

Table 7.6 Metalinguistic terms related to "grammar" that occur in the interaction within the first collaborative writing task (001) in both years

Domains and terms		Grade 2			Grade 4			Subtot. S vs. T		Subtot. S 2nd vs. 4th		Tot.
		D3	D5	T	D3	D5	T					
Grammar	Noun	6	1		9	15	1	31	1	7	24	32
	Phrase				4		3	4	3		4	7
	Word	1					4	1	4	1		5
	Surname				2			2			2	2
	Future					2		2			2	2
	Present					2		2			2	2
	Past					1		1			1	1
	Rhyme					1		1			1	1
	Sound		1					1		1		1
Subtotal		**7**	**2**		**15**	**21**	**8**	**45**	**8**	**9**	**36**	**53**

Table 7.7 Metalinguistic terms related to "graphics" (graphical configuration) that occur in the interaction within the first collaborative writing task (001) in both years

Domains and terms		Grade 2			Grade 4			Subtot. S vs. T		Subtot. S 2nd vs. 4th		Tot.
		D3	D5	T	D3	D5	T					
Graphics	Line		8	1	1	1	3	10	4	8	2	14
	Letter (handwriting)				2			2			2	2
	Page				1		1	1	1		1	2
	Handwriting				1			1			1	1
Subtotal			**8**	**1**	**5**	**1**	**4**	**14**	**5**	**8**	**6**	**19**

terms, although not very broad, such as "phrase", "surname", "present", "future", "past" and "rhyme".

The activation of metalinguistic terms acquires a functional nature during the text writing process. In the field of spelling, these functions may consist of giving indications as to the spelling of words or questioning the writing colleague about the orthographic form. In the field of punctuation, the functions also include giving indications as to the punctuation marks to be entered, questioning the punctuation to be performed or its justification. As punctuation admits in many cases different solutions, contrary to what happens in terms of the orthographic form, it is often associated with making choices.

In the field of text, genre and discourse, MT are associated in the students' speech with choices regarding the subgenre, the control of the progress of the writing process and with decisions regarding textual elements or categories, such as the title, characters or to regulate the intervention of these narrative/textual categories (Calil, 2016; Calil, 2021). In the graphic domain, the line count emerges above all to control the length of the text. Some examples of these utterances and their different functions can be seen at Barbeiro et al. (2022).

We will now analyse the MT that occurred when the children were producing the last collaborative writing task, one at grade 2 and the last one at grade 4. Results are patent in Table 7.8, which we firstly show as a picture, to have a panoramic view, and then split into as many parts as the domains analysed.

A first look at Tables 7.8 and 7.9 reveals us a huger amount of MT, which now we needed to organize into two different categories: one for technical and nontechnical terms as exactly mentioned by children, like we have previously done, and the other to summarize relevant comments and topics that nurtured discussions of a metalinguistic nature, although no specific terms were mentioned to name the language phenomena that motivated the give-and-take. We continue to present the number of occurrences according to (i) who mentioned it (students, D3 or D5, or teacher) and (ii) when (at grade 2 or grade 4), indicating the subtotal "students vs. teacher" and comparing both school years as well as providing the total for each language domain examined (Tables 7.9, 7.10, 7.11, 7.12, and 7.13).

When writing together in the last collaborative task, students produce more MT related to text, genre and speech (Table 7.9 – 160 oc.), which, at the first writing task, had the 3rd place:

Table 7.8 Total of metalinguistic terms that occur in the interaction within the last collaborative writing task (006) in both years

	Grade 2			Grade 4			Subtotal		Subtotal – S		
Domains	D3	D5	T	D3	D5	T	S	T	2nd	4th	TOTAL
Text, genre and speech	62	23	7	30	14	24	129	31	81	44	**160**
Grammar	8	6	0	2	0	4	16	4	14	2	**20**
Spelling	31	69	0	6	15	2	121	2	100	21	**123**
Punctuation	13	0	1	25	6	6	44	7	13	31	**51**
Graphics	36	36	11	10	21	20	103	31	72	31	**134**
TOTAL	**150**	**134**	**19**	**73**	**56**	**56**	**413**	**75**	**280**	**129**	**488**

Table 7.9 Metalinguistic terms related to "text, genre and speech" that occur in the interaction within the last collaborative writing task (006) in both years

Domain	Technical and nontechnical terms	Comments and metalinguistic topics	Grade 2 – 2015			Grade 4 – 2017			Subtotal		Subtotal		Total
			D3	D5	T	D3	D5	T	S	T	2nd	4th	
Text, genre and speech	Story(stories)		8	16	4	3	4	11	31	15	24	7	**46**
	Short story		3						3	0	3	0	**3**
	Text		8			2	1	2	11	2	8	3	**13**
	Title (mentioning it with other words)					1			1	0	0	1	**1**
		Text planning						1		1			**1**
	Idea(s)		5			4	1	2	10	2	5	5	**12**
	The end/to finish the text		3			1	1		5	0	3	2	**5**
	Big text					1			1	0	0	1	**1**
		Character (reasoning about its characterization, even not mentioning this term)	2			1			3	0	2	1	**3**
	Past					1			1	0	0	1	**1**
	(main) character		2	4	2	1	1	7	8	9	6	2	**17**
		Implicit allusion to the narrator (pragmatic concern)				1			1	0	0	1	**1**
		To repeat/repeat (implicitly)				2			2	0	0	2	**2**
		Vocabulary (discussion about lexemes)	5			7	2		14	0	5	9	**14**
		Direct/indirect speech (they make use of both, but not of these terms)	2			1			3	0	2	1	**3**
	Character talk		1			1		1	2	1	1	1	**3**
	Dramatic text					1			1	0	0	1	**1**
		Sequence of actions (coherence implicitly)	2			1			3	0	2	1	**3**
		Likelihood	2			1			3	0	2	1	**3**
	Environment						1		1	0	0	1	**1**
	Title		9	3	1		1		13	1	12	1	**14**
		Someone mentions that the text is not good/needs to be improved	4						4				**4**
		Text addition	2				1		3	0	2	1	**3**
		Topic disambiguation					1		1	0	0	1	**1**
	Theme		4						4	0	4	0	**4**
	Question		1						1	0	1	0	**1**
	Part (of the story)		1						1	0	1	0	**1**
	Thriller		1						1	0	1	0	**1**
	Free (activity/text)							1		1			**1**
	Oriented (text)							1		1			**1**
	Adventures							1		1			**1**
	Imagination							1		1			**1**
	Where will it happen							1		1			**1**
	To invent							2		2			**2**
	Reader							1		1			**1**
Subtotal			**62**	**23**	**7**	**30**	**14**	**24**	**129**	**31**	**81**	**44**	**160**

Table 7.10 Metalinguistic terms related to "graphics" that occur in the interaction within the last collaborative writing task (006) in both years

Domain	Technical and nontechnical terms	Grade 2 – 2015			Grade 4 – 2017			Subtotal		Subtotal		Total
		D3	D5	T	D3	D5	T	S	T	2nd	4th	
Graphics	Right/crooked sheet				2			2	0	0	2	**2**
	Page				1			1	0	0	1	**1**
	Space ("right together with comma")				1			1	0	0	1	**1**
	"Leg" of a letter				1			1	0	0	1	**1**
	Line	2	3					5	0	5	0	**5**
	To write	18	17	1	2	18	6	55	7	35	20	**62**
	Written	2						2	0	2	0	**2**
	Little scratch/scratch (=erasure)	3	1					4	0	4	0	**4**
	To scratch (erase)	1						1	0	1	0	**1**
	To delete	3						3	0	3	0	**3**
	Rubber/little rubber	6			1			7	0	6	1	**7**
	Pen	1	11	9	2	3	6	17	15	12	5	**32**
	Sheet		3	1			4	3	5	3	0	**8**
	Letter (=handwriting)		1				1	1	1	1	0	**2**
	Paper						2	0	2	0	0	**2**
	To write down						1	0	1	0	0	**1**
Subtotal		**36**	**36**	**11**	**10**	**21**	**20**	**103**	**31**	**72**	**31**	**134**

When no "comments and metalinguistic topics" were found, we do not include this column

Example 7.1

Estamos a escrever sempre 'era uma vez'; Por que é mesmo que temos que escrever sempre 'era uma vez'? (2015_D5_006)

Our translation:
We are always writing "once upon a time"; Why do we even have to write "once upon a time"?

Noticeable enough is also the fact that in this case the students are the main protagonists of MT (129 occurrences vs. 31 by the teacher). Let us recall that, within 001, the teacher talked predominantly before students start writing about instructions and procedures to comply with research protocol.

Graphics (Table 7.10) is now the second domain to be mentioned (134 oc.), with comments referring to the organization of the text in the writing sheet and the usage of writing instruments, as well as observations concerning legibility and revising/editing:

Example 7.2

Mas, primeiro ele tem que salvar para depois pôr o Lobo nesse sítio (2017_006_D3)

Table 7.11 Metalinguistic terms related to "spelling" that occur in the interaction within the last collaborative writing task (006) in both years

Domain	Technical and nontechnical terms	Comments and metalinguistic topics	Grade 2 – 2015			Grade 4 – 2017			Subtotal		Subtotal		Total
			D3	D5	T	D3	D5	T	S	T	2nd	4th	
Spelling	Letter names		18	65		1	2		86	0	83	3	**86**
	(Capital) letter		1	1		2			4	0	2	2	**4**
	Doubt (o or u, and others)					1	1		2	0	0	2	**2**
	Correction (upper case vs. lower case)					1			1	0	0	1	**1**
	Correction (readability)						1		1	0	0	1	**1**
	Error (spelling correction)		2	2			7	1	11	1	4	7	**12**
	Accent		4				2		6	0	4	2	**6**
	Hat (circumflex accent)		1						1	0	1	0	**1**
	Big letter		2						2	0	2	0	**2**
	Dash (=hyphen)		1			1	2		4	0	1	3	**4**
	Little dash (=hyphen)			1					1	0	1	0	**1**
		Reference to the slope of the graphic accent (not mentioning its technical designation)	2						2	0	2	0	**2**
	Spelling rules							1	0	1	0	0	**1**
Subtotal			**31**	**69**	**0**	**6**	**15**	**2**	**121**	**2**	**100**	**21**	**123**

Table 7.12 Metalinguistic terms related to "punctuation" that occur in the interaction within the last collaborative writing task (006) in both years

Domain	Technical and nontechnical terms	Grade 2 – 2015			Grade 4 – 2017			Subtotal		Subtotal		Total
		D3	D5	T	D3	D5	T	S	T	2nd	4th	
Punctuation	Period(s)	3		1	3	3	1	9	2	3	6	**11**
	Comma(s)	1			8		1	9	1	1	8	**10**
	Quotation marks	3			2			5	0	3	2	**5**
	Paragraph(s)				4	1	2	5	2	0	5	**7**
	Two points				1			1	0	0	1	**1**
	Dash	4			4		1	8	1	4	4	**9**
	Exclamation mark				2	2		4	0	0	4	**4**
	Little dot (period)				1			1	0	0	1	**1**
	Question mark	1						1	0	1	0	**1**
	Trace (dash)	1						1	0	1	0	**1**
	Idea per paragraph						1	0	1	0	0	**1**
Subtotal		**13**	**0**	**1**	**25**	**6**	**6**	**44**	**7**	**13**	**31**	**51**

Table 7.13 Metalinguistic terms related to "grammar" that occur in the interaction within the last collaborative writing task (006) in both years

Domain	Technical and nontechnical terms	Comments and metalinguistic topics	Grade 2 – 2015			Grade 4 – 2017			Subtotal		Subtotal		Total
			D3	D5	T	D3	D5	T	S	T	2nd	4th	
Grammar	Inflection (verbal, form of address)					1			1	0	0	1	**1**
	Inflection (verb tense)					1			1	0	0	1	**1**
	Noun		2	6					8	0	8	0	**8**
	Word		5					3	5	3	5	0	**8**
		They discuss sentence building	1						1	0	1	0	**1**
	Writing rules							1	0	1	0	0	**1**
Subtotal			**8**	**6**	**0**	**2**	**0**	**4**	**16**	**4**	**14**	**2**	**20**

Our translation:

But first he has to save and then put the wolf in that place.

This is an interesting phenomenon, since this was the less frequent domain in the first tasks, which may lead us to suppose students can now accommodate a huger reflection combining more variables to put a text together: not only they talk about textual genre issues but also they interact about writing configuration and spelling:

Example 7.3

(Continua escrevendo enquanto B. fala, soletrando as palavras) [Ca] Ca-pu [pu] chiii [chi] nho [nho], es-taaa-va [estava], aaa-cor-ren [acorren] ta [ta] da [da] [2017_006_D3]

Our translation:

(Continues writing while B. speaks, spelling out the words) [Li] Li-ttle Reeeeeed Ri [ri] ding Hood waaaaaas chai-ned.

Example 7.4

Não é com esse, é vô! (Ele pega a caneta da mão de S. e tenta escrever, mas ela o impede) [2015_D5_006]

Our translation:

It's not like this one, it's grandpa[4]! (He takes the pen from S.'s hand and tries to write, but she stops him)

This latter domain indeed conquers the third place in students' dialogue (123 oc.), still with the name of different letters high above other MT (Table 7.11). Other than that, different types of corrections are made related to the use of capital letters,

[4] He is indicating, in Portuguese, which type of written accent to use, circumflex.

accents and diacritics and to common doubts due to the non-univocal correspondence phoneme-grapheme in Portuguese, as well as an urge to make handwriting clearer. Punctuation (Table 7.12.), which was a big concern for students at the beginning, collects now only 51 occurrences, with "period", "comma" and "dash" still storing the upper incidence. The fact that the students are writing stories – narrative texts – has certainly to do with this, since punctuation also has to do with the textual genre.

MT related to grammar (Table 7.13) are again the less stated (total of 20), with "noun" at the top and also "word".

We are to compare the students' performance in 2 years, and we observe that there is only one domain in which students produce more MT: punctuation. Let us recall though that this was, at this point, one of the less common mentioned. Previously, at the first collaborative processes, punctuation also experienced a great rise. Other than that, a significant decrease of MT is observed in grade 4 (129 compared to 280 oc. in the 2nd year), exactly the opposite trend when compared to the writing processes of the first collaborative tasks. These facts make us suppose that:

- Even if punctuation doesn't collect massive references, it keeps being a problematic issue when students write.
- It seems to have happened what we may call a "task saturation", given that the students performed better in terms of having writing conversations – considering that mentioning a bigger amount of MT indicates that students are discussing what they are writing – at the first collaborative tasks. In fact, we consider a high amount of MT a sign of writing engagement in the task.
- We may also hypothesize students at grade 4 may be more "school sick" and may invest less in their tasks; in spite of this radical statement, there seems to exist specific reasoning about certain topics, like shown above.
- Another relevant interpretation is that the abondance of MT reflects students' doubts: the decrease of MT may indicate as students get older, they feel more confident and have less questions. They may have automatized some writing subprocesses and may be questioning and discussing more detailed issues, like hypothesized above.

We may also relate these last two hypothesis with the biggest variety of MT in some domains mentioned in 006 productions:

- Text, genre and speech: from 22 different MT (in 001) to 35, considering technical, nontechnical and comments with no specific terms but directing to important concepts
- Grammar: 9 MT in 001 and 6 in 006
- Spelling: 14 MT in 001 and 13 in 006
- Punctuation: 13 in 001 and 11 in 006
- Graphics: 4–16 in 006

In fact, in what concerns text, genre and speech, students reflect about more issues than before, also being able to conciliate that with the graphical organization and clarity of the text. In the other domains, the decrease observed is reduced.

7.7.2 *Narrative Quality and Metalinguistic Activity*

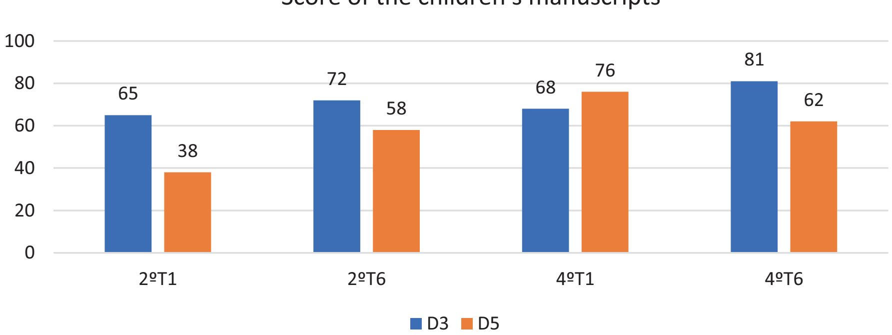
According to the evaluation of the judges, the narrative quality of each text obtained the score below (Graph 7.1).

As we can see, the narrative quality of D3 (286) was better than the narrative quality of D5 (234), both in the 2nd year (D3 = 137 × D5 = 96) and in the 4th year (D3 = 149 × D5 = 138). Only the 1st production of the 4th year made by D5 scored slightly higher. Likewise, the MT verbalizations of D3 were also in greater numbers. As indicated in the previous section, in total 427 MT were verbalized by D3 and 380 MT by D5. This difference remains in the verbalizations included in the "text, genre and speech" domain and in the "punctuation" domain, both more directly related to the items evaluated by the judges. D3 verbalized 243 MT, while D5 verbalized only 101 MT.

The dyad with the highest number of MT, particularly associated with the domains linked to the parameters evaluated by the judges – text, gender and speech and punctuation – is also the dyad that collects the best scores in narrative quality, according to the judges' evaluation. Considering the verbalization of MT (technical or not) and/or topics related to metalanguage as a reflection of some metalinguistic competence, the fact that the dyad with better texts has more MT seems to confirm our hypothesis that a greater metalinguistic competence translates into in higher textual quality.

Regarding the way in which the MT verbalizations occur, there are different aspects to be observed. The first concerns the recognition of the textual object. For example, during the linearization of Little Red Riding Hood's request for help (2nd D5T6), D5 writes without any verbalization of MT related to the character's speech or punctuation marks that may characterize this speech: "Ela gritou: Socorro! Socorro!" ("She shouted: Help! Help!").

Student SA, when linearizing the Little Red Riding Hood cry for "help", just uses the comma to separate the repeated lexicon, without mentioning any MT. During the construction of this speech, neither the writer student nor the dictating student verbalized MT associated with punctuation or dialogue, such as "capital letter", "dash", "colon" or "exclamation". This lack of verbalization referring to the



Graph 7.1 Score of children's manuscripts

"punctuation" domain is also indicated in Table 2.4. This duo, in 2015, had not verbalized any punctuation marks during the manuscripts under construction. It is worth noting that the school manuscript "O dia na floresta" ("The day in the forest"), in addition to the single "comma", uses only four capital letters and two full stops. The lack of verbalization of these MT, associated with the low occurrence of inscriptions of punctuation marks, would suggest little knowledge and/or non-automation of textual objects related to this domain.

During this same textual production activity, the other pair (D3) indicates a differentiated metalinguistic knowledge. Let's see how this occurs in the text-dialogue (TD)[5] transcribed below.[6]

TD1: 00:16:51–00:17:59: D3, linearizing the Bad Wolf's speech ("Where is Little Red Riding Hood going?"), during the writing of the school manuscript "Little Red Riding Hood and Spiderman", written on March 3rd, 2015.

258. BE: Éé... (Ditando) 'Onde que tu vais, Capuchinho?' (Olhando NI começando a escrever, no início da linha 5, a fala do Lobo Mau, sem o travessão: "onde" [on]). Falando com ênfase) Não! (Apontando o início da linha. Explicando o uso do travessão) Quando estás a falar, põe-se um **tracinho**. (Ainda apontando com o índex o início da linha 5) Aí, **travessão**.
259. NI*[1]: Um **travessão**?
260. BE: Sabes o que é que é isso?
261. NI*: (Mexendo negativamente a cabeça) Não!
262. BE: Põe um **tracinho** aqui à frente. (NI escrevendo o travessão [-] no início da linha 5, antes de [on]) Certo.
263. NI*: (Continuando a escrever 'onde') ...on... de [de]...
264. BE: Olha, e tens que pôr com **letra maiúscula**... porque isto é igual a **ponto final**, igual ao **ponto de interrogação**... (NI rasurando [~~onde~~] e escrevendo [Onde]. BE voltando a ditar) 'On-de... vais Capuchinho... Vermelho?' (NI escrevendo [vai Capuchinho[2] vermelho?])

[1]The asterisk indicates which student is writing. The other student is responsible for dictating.
[2]Spelling mistake by students: it should be "Capuchinho" (Little Red Riding Hood).

[5]TD is the text-dialogue, as proposed by Calil (2016). TD is characterized by indicating the time, the dialogue and what was effectively linearized in the current manuscript. We highlight in red the verbal recognition of the textual objects; in blue, the spontaneous comments about these textual objects; and in the green block, what was inscribed on the sheet of paper, when it was inscribed. In bold, we indicate the verbalized MT.

[6]The TD are not translated since our comments after point out the main points to be observed. Moreover, students' hesitations and strategies to spell it out in the Portuguese language are harder to imitate in English; also, inter-comprehension strategies might be put into place.

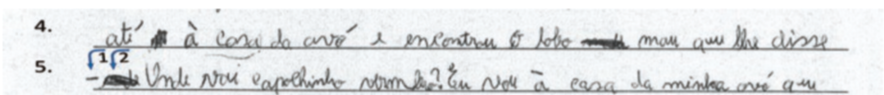


Fig. 7.1 Fragment of the manuscript “Little Red Riding Hood and Spiderman”, with arrows 1 and 2 indicating the recognized textual objects (2D3T6)

We highlight in Fig. 7.1, with arrows 1 and 2, the two tension points that indicate the students’ returns which will result in the erasure identified in the word “onde” (“where”). These returns were due to the recognition of the textual object “dash” and then “capital letter”.

The recognition of the first textual object appears as soon as NI starts writing the speech of the Big Bad Wolf character, at the beginning of line 5. BE, seeing that NI did not make the dash, returns to this point, highlighting the lack of this punctuation mark, verbalizing his/her name. About this textual object, there are two metalinguistic comments that express the student’s way of thinking and contribute to the quality of the narrative, in the item “diálogo”/“dialogue”. The first comment, in addition to verbalizing the MT, both the technical term “dash” and the nontechnical term “dash”, explains its rule of use: “quando estás a falar, põe-se um tracinho. Aí, travessão” (“when you are talking, put a dash. There, a dash.”) (turn 258, BE). This metalinguistic activity has the status of a textual revision on what had already been linearized by NI. For the same reason, about this textual object “dash”, there is yet another comment, this time indicating its graphic-spatial aspect: “Põe um tracinho aqui à frente [antes da sílaba “on”]. Certo.” (“Put a little dash here ahead [before the syllable “on”]. Right.”) (turn 262, BE).

Right after the addition of the dash by NI, during turn 262, the student continues the linearization of writing the word “onde” (“where”), keeping [on] as it was inscribed (with a lowercase letter) and adding only the syllable [de]. In another subsequent scriptural action of a revisional nature, the dictating student BE recognizes the presence of the lowercase letter, verbalizing the MT “letra maiúscula” (“capital letter”) and explaining: “porque isto é igual a ponto final, igual ao ponto de interrogação....” (“because this is equal to the full stop, equal to the question mark....”) (turn 264, BE). When explaining, she does not justify the need for use, mentioning her basic rule: at the beginning of the sentence, she must use a capital letter. However, her metalinguistic activity mobilizes another very interesting argument. BE spontaneously compares the use of the capital letter after the “travessão” (“dash”) with the use of capital letter after the “period” and after the “question mark”, characteristic common to the uses of these punctuation marks.

In Table 7.12, we have 13 MT verbalizations about punctuation, by D3, in the 2nd year. In the narrative quality dialogue item, evaluated by the judges, this story (2nd D3T6) got a score of 13/20, while the story 2nd D5T6 was scored 8/20.

The interactional dynamics involving these returns, recognitions and comments, despite having been established in the brief chronological space of 68 seconds, suggests that the verbalization of names of punctuation marks would be associated with their use and function. When the verbalization of the MT is accompanied by

comments, we can observe the way in which students explain or justify the use and/or function of the MT in question.

Another mode of occurrence of MT can be related simply to the fact that the story is being written, without there being any doubts or questions about its use or function, as we will show in the dialog below.

TD2: 00:21:25–00:21:28: D5, linearizing Little Red Riding Hood's scream ("Aaaaaaaaaaaaaaaaaaaaa!!!!"), during the writing of the school manuscript "Little Red Riding Hood 2", written on March 2nd, 2017.

104. SA*: (Lendo o que escreveu nas duas primeiras linhas) Um dia… a Capuchinho ia passear... mas apareceu…o lobo-mau... lobo-mau... **dois pontos** [:]...

105. CRI: Eu posso trocar esse... (SI) (Apontando com o indicador a palavra 'mas', escrita ao final da linha 2. SA escrevendo no início da linha 3 [- A]) ...'mas' por 'e'... por 'e'... 'apareceu o Lobo mau'.

106. SA*: (Batendo levemente e afastando a mão de CRI) Não!

Student SA from D5 is also the one who writes, as she was in 2nd D5T6. However, 2 years later, the student no longer writes without using the proper punctuation to mark direct speech. Now, when introducing Little Red Riding Hood's speech, she simply mentions the name of the punctuation mark (colon). Subsequently, when starting the linearization of the character's scream, the student makes the dash and capital letter without even verbalizing them. There is, at that moment, no tension in her inscription (Fig. 7.2).

This indicates two differences from the two previous examples. The first one is the proper use of punctuation marks related to the introduction of direct speech in the fictional narrative. The second difference lies in the fact that this use and its function are learned and automated by the student, not generating more questions about its pertinence or suitability for the manuscript under construction, as it had also occurred during the manuscript produced by D3 in the 2nd year (2nd D3T6).

These differences do not seem to allow the establishment of clear relationships between MT verbalizations and narrative quality. We understand that the verbalization or non-verbalization of certain MT during the ongoing manuscript would need to be understood in relation to what is being effectively linearized and recognized as

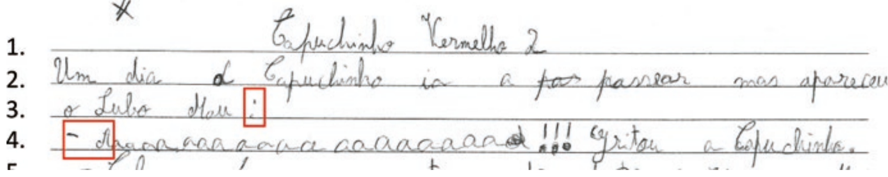


Fig. 7.2 Fragment of the manuscript "Little Red Riding Hood 2", D5, written in March 2nd, 2017, with highlighted signs introducing the character's speech (4D5T6)

a textual object. In the first case (2D5T6), we saw that the punctuation marks were not inscribed, nor did the students verbalize any MT when linearizing "ela gritou socorro, socorro" ("she shouted help, help"). In the second case (2D3T6), student BE identified the need for two textual objects (punctuation marks), naming them and explaining why they would be necessary. In the third case (4D5T6), there seems to be a more advanced understanding of the use and function of punctuation marks that mark direct speech. This is evidenced by the correct use of those punctuation marks and the absence of the student's verbalizations about this particular linguistic topic. That is, as the student gets better at understanding the use and function of punctuation marks and accurately registering these punctuation marks, the less he interrupts the writing process with the verbalization of questions or explanations about their use.

However, if we consider the scores of the item "diálogo" ("dialogue"), evaluated by the judges (63 points for D3 manuscripts and 47 points for D5 manuscripts), and the occurrences of MT verbalizations associated with this item, we would have a correlation between the textual quality and verbalizations. In other words, when some MT are in a learning process (before their uses are understood and automated), verbalization seems to indicate a greater concern with the quality of the narrative being produced.

7.8 Final Remarks

Within this study, we were able to analyse the writing process of dyads of children while composing eight stories, four in grade 2 and another four 2 years later, in grade 4. The access to the process and to the product made us able to observe their grammatical choices on paper as well as in dialog; also, we had their narrative quality assessed and could put hypotheses and find evidence, either to robust them or to bring more clarity about the need to take into account both the process and the product when it comes to know (the quality of) children's writing, as we will synthesize.

Globally, at the last collaborative process, students named more MT. Spelling and punctuation at first more abundant gave place to "text, genre and speech" in 006, followed by "graphics" and "spelling". Children verbalized more MT than the teacher.

Let us now see more in detail a summary and a few examples of students' writing processes within 006 in grade 4 (2017), analysed for the first time for the study presented here. Regarding D3, there is minimal explicitness, although centred on the lexical dimension, for example, "assombrado" vs. "abandonado" – "haunted vs. abandoned"; in fact, choosing one or another of these words is taken up in three major moments, the one when a decision is taken, another one when one child undertakes criticism of her colleague due to her lack of understanding of the words' difference and, finally, a clarification of the difference by the one who criticized and "saved the solution" for later.

We recognize text density and congruence, as well as a coherence between planning and production. A simple narrative strategy is adopted: two opponents and an adjunct, who will help and save those in trouble. D3 takes on multiple reads throughout production, retroactive as well. One can also observe a moment of pragmatic awareness, anticipating how the reader will understand the story. Simultaneously, there is also reasoning according to the knowledge of the world (for instance, when they correct their writing, stating that years of imprisonment are not defined by the prisoner, so the text must convey to the world people know). We would say that the strongest textual values for this dyad are to avoid repetition and the need to vary vocabulary.

D5 performed a retroactive reading mainly located in words; we diagnose, and then this immediate reading does not serve to propel the rest of the narrative. This laconic reading has consequences: the lack of clarity coming from the explanation of a simple inference, cumulative writing without orientation of the role of the characters, redundancy, many ambiguities, illogical and hasty advances. Moreover, one of the mandatory characters to include in the narrative ended up not fulfilling any function (Spider man); indeed, D5 never noticed this problem, neither solved it. The story ends with a succession of unresolved conflicts.

We observed in D5's dialogue an absence of reflection, dispersion and non-continuity of reasoning. The children kept writing while running the pen, very cumulatively, without planning control. References to punctuation and spelling predominate, although there is a noticeable lack of punctuation.

These summaries coincide with the dyads' scores both in textual quality (D3 performed better in almost all writing situations) and "dialogue" (which was relevant in the analysis made here) (D3 again did better). D3 also verbalized more MT. These facts together seem to confirm our hypotheses that more MT might mean a better text. Nevertheless, we made clear that an attention to the process and the product shows that sometimes MT are not mentioned nor used; or MT are mentioned and used; or they are not mentioned, but they are used. This certainly strengthens the importance of having pedagogical devices, which foresee the monitoring of children's writing by the teacher more closely, allowing them to return reflexively to their texts when the need emerges. This being said, one cannot suppose MT are the only sign of metalinguistic knowledge; this knowledge might be guiding the writing at certain aspects when children no longer need to make their options explicit, because they relate to acquired concepts, for instance.

Our conclusions lead us to emphasize the need of putting in action a formative assessment both of process and textual products, since they inform us how to guide the students and plan teaching. Indeed, collaborative writing was/is good on many levels, but under certain conditions of possibility, we might say:

- The importance of class work/writing/metalinguistic reflection that serves as a model for those moments when children write alone or among them.
- Teacher prompting might lead to more student engagement – in many situations, students may perhaps have seen their mistakes if the teacher had drawn their attention to them. This leads us to also suggest students should be instructed to

call the teacher while they are writing, and when they face the need, so that the teacher will be able to help solve dilemmas. We have also seen it is (it would be) beneficial that the teacher shall circulate and read their ongoing work as well, given that they are not always aware of their gaps.

- The possibility to interrupt the dyad's writing, on its own initiative, to ask a question to the entire class.
- The teacher monitoring of the writing process may be so specialized at the point that (s)he may choose an excerpt from a dyad for detailed reading to detect and solve problems – that would be, as we may call it, a "Detailed Reading of Student Text" (DRST, in Portuguese, "Leitura Detalhada do Texto do Aluno", LDTA). It would also be possible for teacher to present students the comparison between a student excerpt and teacher reconstructed excerpt.
- Students should be motivated to have a paper to write down thoughts while they write, because a difference was observed between what they actually write down and what they had said out loud (what they say varies, and good options are lost, as we have seen while analysing these processes).

Above all, there is an extreme need for the teacher to question students during the writing process. We observed that writing was conducted by children based on their mode of action/knowledge, sometimes resulting in lower-quality texts plenty of easy-to-overcome gaps. Therefore, these collaborative devices should include a very active teacher who is willing and able to know about the children's writing plan, provide guidance, compare "plan" and "accomplishment", and lead to the rewriting of the text, if necessary; or, at least, to look at a particular part of the text and analyse aspects such as – the evolution of the action; microstructure – incongruities, ambiguities. In this device that we analysed, students were invited to a final reading, but lots of dimensions together make of a narrative a good narrative, and the teacher would be more able to conciliate those, and draw the attention, for instance, to assess the congruence between the conclusion and the rest of the text.

This sample of data analysed here is simply a tiny part of a huge longitudinal study comprising 10 dyads, at grade 2 and at grade 4, who have written individually at the beginning and at the end of the data collection and who have also written collaboratively 6 times in each school year (001 to 006, in grade 2 and grade 4). We have also collected teaching materials and students' handbooks. Of course, this material is endless in terms of the possible analysis, but we would stress out the need to conduct a study whose results could have more statistical significance regarding writing quality and metalinguistic knowledge and the relationship between those. This highlights the need of the finest and quickest analysis instruments, able to focus on specific assessment criteria. Needless to say, this material offers possibilities in other dimensions of teaching work, such us conflict management, which, although in a small sample, proved to be a sore point during the children's interaction considered at this point.

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References

Adam, J.-M. (1992). *Les textes: Types et prototypes [Text types and prototypes]*. Éditions Nathan.

Barbeiro, L. F., & Pereira, L. A. (2007). *Pnep. O ensino da escrita. A dimensão textual [Pnep (National Plan for the Teaching of Portuguese). The teaching of writing. The textual dimension]*. ME – DGIDC.

Barbeiro, L. F., Pereira, L. Á., Coimbra, R. L., & Calil, E. (2020). Os títulos no processo de escrita de histórias por alunos do 2.º ano de escolaridade [Titles in the story-writing process by grade 2 pupils]. *Revista Portuguesa de Educação, 33*(2), 71–94. https://doi.org/10.21814/rpe.18339

Barbeiro, L. F., Pereira, L. Á., Calil, E., & Cardoso, I. (2022). Termos metalinguísticos e operações de natureza gramatical na escrita colaborativa dos alunos do ensino básico [Metalinguistic terms and grammatical choices in the collaborative writing of primary school students]. *Tejuelo. Didáctica de la Lengua y la Literatura. Educación, 35*(2). https://doi.org/10.17398/1988-8430.35.2.45

Buescu, H. C., Morais, J., Rocha, M. R., & Magalhães, V. F. (2015). *Programa e Metas Curriculares de Português do Ensino Básico [Curricular Program and Targets of Portuguese for Basic Education]*. Ministério da Educação e da Ciência.

Bulea Bronckart, E.-E. (2015). L'interaction entre grammaire et texte: Les défis didactiques d'une prescription innovante [The interaction between grammar and text: The didactic challenges of an innovative prescription]. *Scripta, 19*(36), 57–74. https://doi.org/10.5752/p.2358-3428.2015v19n36p57

Calil, E. (2012). Dialogues between two pupils during the process of writing a fictional story. Verbal erasures and their forms of representation. In F. Cooren & A. Létourneau (Eds.), *(Re)presentations and dialogue* (pp. 325–341). John Benjamins Publishing Company.

Calil, E. (2016). The meaning of words and how they relate to the ongoing text: A study of semantic comments made by two 7-year-old school children. *Alfa, 60*(3), 537–561. http://seer.fclar.unesp.br/alfa/article/view/8478/5990

Calil, E. (2017). Rasura oral comentada: Definição, funcionamento e tipos em processos de escritura a dois [Commented oral scribing: Definition, functioning and types in writing processes by two pupils]. In C. L. Silva, A. Del Ré, & M. Cavalcante (Eds.), *A criança na/com a linguagem: Saberes em contraponto* (pp. 161–192). UFRGS.

Calil, E. (2020). Sistema Ramos: Método para captura multimodal de processos de escritura a dois no tempo e no espaço real da sala de aula [Ramos system: Method for multimodal capture of collaborative writing processes in pairs in real time and space in the classroom]. *ALFA: Revista de Linguística*, vol. 64. https://doi.org/10.1590/1981-5794-e11705

Calil, E. (2021). Gênese textual de um título: Estudo sobre as redes associativas e ativação de memórias em alunos recém-alfabetizados [The textual genesis of a title: A study on associative networks and memory activation in newly literate students]. *Bakhtiniana. Revista de Estudos Do Discurso, 16*(1), 184–210.

Calil, E., & Myhill, D. (2020). Dialogue, erasure and spontaneous comments during textual composition: What students metalinguistic talk reveals about newly-literate writers' understanding of revision. *Linguistics and Education, 60*. https://doi.org/10.1016/j.linged.2020.100875

[7] http://protextos.web.ua.pt/ – a learning community part of CIDTFF.

Calil, E., & Pereira, L. Á. (2018). Reconhecimento antecipado de problemas ortográficos em escreventes novatos: Quando e como acontecem [Early recognition of spelling problems in novice writers: When and how they happen]. *Alfa: Revista de Linguística (São José Do Rio Preto), 62*(1), 91–123. https://doi.org/10.1590/1981-5794-1804-5

Camps, A. (2019). La actividad metalinguistica en la aprendizaje de la gramática [Metalinguistic activity in grammar learning]. In *A linguística na Formação do Professor: das teorias às praticas* (pp. 11–22). Universidade do Porto. Faculdade de Letras. https://doi.org/10.21747/978-989-8969-20-0/linga1

Camps, A., Ribas, T., Milian, M., & Guasch, O. (1997). Activitat metalingüística durant el procés de producció d'un text argumentatiu [Metalinguistic activity during the writing process of an argumentative text]. *Articles, 11*, 13–21.

Camps, A., Ribas, T., Guasch, O., & Milian, M. (2000). Metalinguistic activity: The link between writing and learning to write. In A. Camps & M. Milian (Eds.), *Metalinguistic activity in learning to write* (pp.103–124). Amsterdam University Press.

Chanquoy, L. (2009). Revision processes. In R. Beard, D. Myhill, J. Riley, & M. Nystrand (Eds.), *The SAGE handbook of writing development*. SAGE Publications Ltd.

Chartrand, S.-G. (2017). Le nécessaire rapport dialectique entre faire comprendre le fonctionnement de la langue et développer des compétences scripturales dans l'enseignement grammatical [The necessary dialectical relationship between understanding how language works and developing scriptural skills in grammar teaching]. In E. Bulea Bronckart & R. Gagnon (Eds.), *Former à l'enseignement de la grammaire. Nouvelle édition [en ligne]* (pp. 209–226). Presses universitaires du Septentrion.

Chen, H., & Jones, P. (2012). Understanding metalinguistic development in beginning writers: A functional perspective. *Journal of Applied Linguistics and Professional Practice, 9*(1), 13–36. https://doi.org/10.1558/japl.v9i1.81

Costa, A. L. (2020). Grammar teaching 91-19: An analysis of the Portuguese curricula. *L1-Educational Studies in Language and Literature, 20*, 1–31. https://doi.org/10.17239/L1ESLL-2020.20.03.03

Costa, A., & Batalha, J. (2019). Para um mapa das fronteiras e das pontes na investigação em didática da gramática [Towards a map of borders and bridges in grammar didactics research]. *A Linguística Na Formação Do Professor : Das Teorias Às Práticas*, 61–80. https://doi.org/10.21747/978-989-8969-20-0/linga5

Costa, A. L., & Rodrigues, S. V. (2019). Grammar teaching in Portugal. *Bellaterra Journal of Teaching and Learning Language and Literature, 12*(2), 21–40. https://doi.org/10.5565/rev/jtl3.809

Costa, A. C., Coimbra, R. L., & Pereira, L. Á. (2020). A riqueza lexical em produções escritas no 1.º ciclo: um estudo de caso [Lexical richness in written productions in the 1st cycle: A case study]. *Indagatio Didactica, 12*(2), 259–269.

Coutinho, A. (2019). Que inter-relações entre géneros de texto e conhecimento gramatical podem ser objeto de conhecimento explícito e de avaliação? [What interrelationships between text genres and grammatical knowledge can be made explicit and assessed?]. *Revista Da Associação Portuguesa de Linguística, 5*, 107–117.

Direção-geral da Educação (2018). *Aprendizagens Essenciais [Essential learnings]*. https://www.dge.mec.pt/aprendizagens-essenciais-0

da Silva, A. C. (2016). A configuração do ensino da Gramática nos novos manuais de Português do 9.º ano [The configuration of grammar teaching in the new 9th grade Portuguese textbooks]. *Diacrítica, 30*(1), 83–112.

Fernández Dobao, A. (2012). Collaborative writing tasks in the L2 classroom: Comparing group, pair, and individual work. *Journal of Second Language Writing, 21*. https://www.researchgate.net/publication/257475494_Collaborative_writing_tasks_in_the_L2_classroom_Comparing_group_pair_and_individual_work

Fontich, X. (2014). Grammar and language reflection at school: Checking out the whats and the hows of grammar instruction. In T. Ribas, X. Fontich, & O. Guasch (Eds.), *Grammar at school.*

Research on metalinguistic activity in language education (pp. 255–283). P.I.E. Peter Lang. https://doi.org/10.3726/978-3-0352-6490-6/19

Fontich, X. (2016). L1 Grammar instruction and writing: Metalinguistic activity as a teaching and research focus. *Language and Linguistics Compass, 10*(5), 238–254.

Gil, R., & Bigas, M. (2014). The use of metalinguistic terms in writing activities in early primary school classrooms. In T. Ribas, X. Fontich, & O. Guasch (Eds.), *Grammar at school: Research on metalinguistic activity in language education* (pp. 141–171). P.I.E. Peter Lang. https://doi.org/10.3726/978-3-0352-6490-6/19

Halliday, M. A. K., & Matthiessen, C. M. I. M. (2014). *Halliday's introduction to functional grammar*. Routledge. https://doi.org/10.4324/9780203783771

Heidar, D. M. (2016). ZPD-assisted intervention via Web 2.0 and listening comprehension ability. *English for Specific Purposes World, 17*(4), 1–17.

Marcuschi, B. (2007). O texto escolar: um olhar sobre sua avaliação [The school text: A look at its evaluation]. In B. Marcuschi & L. Suassuna (Eds.), *Avaliação em língua portuguesa: Contribuições para a prática pedagógica* (pp. 61–74). Autêntica.

Martins, G., Gomes, C. A., Brocardo, J. M., Pedroso, J. V., Carrillo, J., Silva, L. M., da Encarnação, M. M., Horta, M. J., Calçada, M. T., Nery, R. F., & Rodrigues, S. M. (2017). *Perfil dos alunos à saída da escolaridade obrigatória [Profile of pupils leaving compulsory education]*. Ministério da Educação – Direção-Geral da Educação.

Ministério da Educação. (1991). *Programa Língua Portuguesa. Plano de organização do Ensino-Aprendizagem. Ensino Básico 1.º ciclo. Volume II [Portuguese language programme. Plan for the organization of teaching-learning. First cycle of basic education. Volume II]*. DGEBS.

Ministério da Educação. (2001). *Currículo Nacional do Ensino Básico – Competências Essenciais [National curriculum for basic education – Key competences]*. Departamento de Educação Básica.

Ministério da Educação. (2008). Dicionário Terminológico [Terminology dictionary]. Available at http://dt.dge.mec.pt.

Myhill, D. A. (2011). 'The ordeal of deliberate choice': Metalinguistic development in secondary writers. In V. Berninger (Ed.), *Past, present, and future contributions of cognitive writing research to cognitive psychology* (pp. 247–274). Psychology Press/Taylor Francis Group.

Myhill, D. (2018). Grammar as a meaning-making resource for improving writing. *L1-Educational Studies in Language and Literature, 18*, 1–21.

Myhill, D., & Jones, S. (2015). Conceptualizing metalinguistic understanding in writing. *Cultura y Educación, 27*(4), 839–867. https://doi.org/10.1080/11356405.2015.1089387

Myhill, D. A., Jones, S. M., Lines, H., & A., W. (2012). Re-thinking grammar: The impact of embedded grammar teaching on students' writing and students' metalinguistic understanding. *Research Papers in Education, 27*(2), 139–166. https://doi.org/10.1080/02671522.2011.637640

Myhill, D., Watson, A., & Newman, R. (2020). Thinking differently about grammar and metalinguistic understanding in writing. *Bellaterra Journal of Teaching and Learning Language and Literature, 13*(2). https://doi.org/10.5565/rev/jtl3.870

Noël, S., & Robert, J. M. (2004). Empirical study on collaborative writing: What do co-authors do, use, and like? *Computer Supported Cooperative Work, 13*(1), 63–89.

Oliveira, S., Silva, J., Agostinho, A., & Simão, A. M. V. V. (2019). MACE: Medida de Avaliação da Composição Escrita no Ensino Básico Português [MACE: Measure for the evaluation of written composition in Portuguese elementary schools]. *Meta: Avaliação, 11*(33), 569–588.

Pereira, L. Á. (2000). Escrever em português. Didácticas e práticas [Writing in Portuguese. Didactics and practices]. In *Horizontes da didáctica*. Edições Asa.

Pereira, L. Á., & Azevedo, F. (2005). Como abordar ... a escrita no 1.º Ciclo do Ensino Básico [How to approach ... writing in the 1st cycle of basic education]. In *Como abordar*. Areal Editores.

Pereira, L. Á., & Cardoso, I. (2013). *Atividades para o ensino da língua – Produção escrita – 1.º e 2.º Ciclos do Ensino Básico: Protextos, Cadernos PNEP 3 [Activities for language teach-*

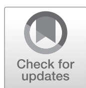
ing – Written production – 1st and 2nd cycles of basic education: Protextos, Cadernos PNEP 3]. Universidade de Aveiro.

Rättyä, K., Awramiuk, E., & Fontich, X. (2019). What is grammar in L1 education today? *L1 Educational Studies in Language and Literature, 19*(2), 1–8. https://doi.org/10.17239/l1esll-2019.19.02.01

Reis, C., Dias, A. P., Cabral, A. T. C., Silva, E., Viegas, F., Bastos, G., Mota, I., Segura, J., & Pinto, M. O. (2009). *Programas de Português do Ensino Básico [Portuguese guidelines for basic education]*. Ministério da Educação, DGIDC.

Vygotsky, L. S. (1986). *Thought and language*. MIT Press.

Chapter 8
The Development of Rhetorical Preferences in the Analytical Writing of Spanish Students from Elementary to Higher Education



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8.1 Introduction

Analytical writing refers to the diverse text types that students are asked to produce in academic settings such as essays, descriptions, and reports. Analytical texts (ATs) are topic oriented; they are aimed at exposing information on a certain matter. However, when dealing with debatable topics, ATs require an argumentative component in addition to the more expository one. The argumentative component serves to assert, defend, and support the writer's standpoint on the topic, while the expository, non-argumentative component supplies descriptions of contextualizing situations, elaborations on the topic, or definition of terms that might be or not directly related to the topic at stake.

The production of analytical essays throughout schooling has many advantages. It offers writers a meaningful context both to learn more about the subject matter and to improve argumentation abilities. Search for more information may be stimulated by classroom activities, by the topic itself, or by the personal characteristics of the student. But the very process of analytical text production activates writers' knowledge about the topic while affecting their awareness about how much they know about it; it has an epistemic effect. The ability to argue in a way that what is offered as true by the arguer is accepted as true by the addressee is a valuable skill in different contexts. It is a useful skill at home, at the working place, in social contexts, and mainly in educational contexts where argumentation is most often

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formally introduced, practiced, and assessed. Attaining proficiency in analytical essays, that is, gaining full command of both argumentative and non-argumentative components, contributes to academic success.

In analytical essays, writers are expected to express their point of view on the topic and to persuade the audience of the validity of the point of view by the force of his argumentation (Tolchinsky et al., 2018). The audience are “those whom the orator wants to influence with his/her argumentation” (Perelman & Olbrechts-Tyteca, 1989 p. 55). Even though written texts are self-sustained/monological texts, there is always a dialogical basis for persuasion to occur (Ramírez, 2010; Stavans et al., 2019). It is essential for the writer to think of the (potential) reader to choose the ideas to be presented (Bazermann et al., 2016; Chala & Chapetón, 2012). As any communication process, the choice of linguistic and structural aspects of discourse chosen to produce an effect on the audience, what Purves (1988, p. 9) defines as *rhetorical preferences*, is open to a wide variety.

This study focuses on Spanish high schoolers’ and university students’ rhetorical preferences for expressing and backing their point of view on a controversial topic. We charted writer’s *position* toward the topic, whether the writer is in favor, is against, or has a two-sided position. We also examined the various *orientations* from which a standpoint is established, the scope of its *reference*, and the strength of its *verbal formulation*. In addition, we explored the type of grounding students provide to their standpoint.

The categories of analysis we applied in the present study were inspired by Berman et al.’s (2002) notion of discourse stance. The term *discourse stance* (DS) defines “a linguistically articulated form of social action” (Du Bois, 2007. p. 139), that is, a linguistic as well as social act to be interpreted within the scope of language, social interaction, and sociocultural values. Taking a stance necessarily involves evaluation and/or assessment. Specific acts of stance-taking allow the speaker-writer to focus on a defined target and to activate socially relevant values to appraise the meaning and implications of specific events and participants (Du Bois, 2007).

In Berman et al.’s (2002) framework, DS involves three related dimensions: orientation, attitude, and generality of references. Orientation concerns the relation between the three participating elements in text production and interpretation: sender (speaker or writer), text (narration or exposition), and recipient (hearer or reader). A sender orientation is subjective, and it tends to be affective or prescriptive reflecting the personal involvement of speaker-writers in the events and ideas that they transmit. Expressions like *I think* proceed from a sender-/writer-oriented viewpoint. A recipient or audience orientation is communicatively motivated; it appears to be directed to the hearer-reader. A recipient orientation may be realized, for instance, by using second-person pronouns with generic reference like Spanish *tú “arbitrario.”* In contrast, a text orientation centers on the content of a piece of discourse in and of itself. This orientation can be realized in more personal or detached terms making use of metatextual terms. Attitude refers to the relation between a speaker-writer and the expressed situation. The epistemic attitude expresses a relation between a speaker-writer and the possibility, certainty, or evidence about the

truth of a given state of affairs; a deontic attitude entails a judgmental or evaluative viewpoint, while an affective attitude concerns the speaker-writer's emotions with respect to a given situation.

Below we present three extracts of texts produced by elementary school students to illustrate how we adapted Berman's framework to establish the categories we used for characterizing students' rhetorical preferences. Thereafter, we outline previous studies on the development of linguistic and rhetorical features of analytical essays that inform the present one. Next, we advance the goals of the current study, the process of text gathering and analysis, and the results we obtained. Finally, we confer some conclusions and pedagogical implications.

8.2 Selected Illustrations of Rhetorical Options

All the students that took part in the study participated in a similar sequence of classroom activities, to be detailed later, and wrote about the same topic: freedom of movement to countries different from own. Below we present three extracts of texts: two (1 and 3) were produced by two students in the last year of secondary school, and the other one (2) was produced by a student in the last year of elementary school.

All the texts were segmented into rhetorical moves: spans of discourse that fulfill different communicative functions and served as units of analysis (Upton & Cohen, 2009). The limits of each such unit in each text as well as the identification of its different types followed explicit criteria and careful validation (see Sect. 8.6). As examples, we selected one of the rhetorical moves in which the students express their standpoint on the topic from three different texts.[1]

Example 8.1
me parece

it seems to me
y estoy de acuerdo con
and I agree with
que haya libertad
let there be freedom
a la hora de viajar
when travelling
seas de la nacionalidad
whatever nationality
que seas
you are

[1] In all examples, the participant's production in Spanish is in italics, followed by its translation into English.

Example 8.2
las personas deberían ser libres de elegir

> people should be free to choose
> *dónde quieren vivir*
> where do they want to live
> *independientemente de dónde hayan nacido*
> regardless of where they were born

Example 8.3
si un día decides

> if one day you decide
> *irte a vivir a otro país con otra cultura distinta a la tuya*
> going to live in another country with another culture different from yours
> *en ese país te tienen que dejar entrar*
> In that country they have to let you in.
> *porque es libre [*] decidir.*
> because it is free [*] to decide.
> *dónde vives*
> where do you live
> *pero siempre respetando su cultura su lenguaje y su nación*
> but always respecting their culture, their language and their nation

In the three examples, students claim in favor of freedom of movement to countries different from own. However, students' position on this topic is differently oriented. In (1), the student takes a personal orientation; he provides an opinion taking a writer perspective. In example (2), the student reflects on the topic displaying a rather impersonal take. In contrast, example (3) has an audience orientation. The writer creates a dialogical basis with the reader (Perelman & Olbrechts-Tyteca, 1989). She uses a second-person singular verbal form to envision the possibility of wanting to travel ("if one day you decide going to live in another country …"), and to this possibility, she dictates an obligation ("In that country they have to let you in …"). The *generality of reference* is noted in every move. Example 8.1 claims for freedom to move "whatever is your nationality"; the scope of reference in Example 8.2 is "people" ("people should be free to choose") and Example 8.3 embraces everyone willing to travel. Finally, the verbal formulation of the standpoint (close but not equivalent to attitude in Berman's framework) also varies. In Example 8.2, it is assertive: the writer completely agrees with the freedom of move, and no conditions are imposed. In Example 8.3, the claim is pronounced in a more tempered way; the writer imposes a "but" to the freedom to decide where to live: to respect the host country culture.

8.3 Linguistic and Rhetorical Features of Analytical Essays

When producing a text, writers need to attend concurrently to content, discourse organization, syntactic packaging, and lexical choices. Thus, text features that were found to indicate ATs' quality range across different linguistic domains. Previous studies on the same sample of Spanish monolinguals (Aparici et al., 2021) examined several indicators of ATs' quality such as text length (in terms of words, clauses, and number of rhetorical moves). Indeed, producing a minimum amount of text is necessary for embracing the different components of analytical writing and therefore functions as an indicator of text quality across languages (Nelson & Van Meter, 2007). The same study also tracked several syntactic-discursive and lexical indicators of ATs' quality such as use of interclausal markers, density of rhetorical moves, subordination, word length, lexical diversity, adjectives, and nominalizations. Results confirmed that text length, syntactic-discursive indicators (discourse density, DMs, and subordination), and participants' lexical choices experienced significant developmental changes. More experienced writers produced more content, more informative, and better-connected units of discourse, and their texts showed increased clausal complexity with more morphologically complex and diverse words.

Text structure was found to be another crucial indicator of text quality. Proficient writers' decisions go top-down since a writing schema including genre and stylistic knowledge stored in long-term memory controls the whole writing process affecting syntactic and lexical choices (Vande Kopple, 1998). In contrast, novice writers' decisions are locally oriented; they depend more on writers' previous local decisions than on a central writing schema. Consequently, mastering the adequate text structure in analytical genres is assumed as an indicator of text quality. Textual structure is realized into spans of discourse that fulfill different communicative functions such as rhetorical moves (Upton & Cohen, 2009). The ability to integrate the different moves to fully reflect the communicative purpose of a genre is a major indicator of writing performance (Allen et al., 2019).

In Vilar and Tolchinsky (2021), we applied a move analysis for characterizing the development of ATs' structure in the same sample of Spanish native speakers. We identified three main types of rhetorical moves: *assertive moves*, embracing the assertion of the writer's standpoint; *argumentative moves*, which embrace the writer's standpoint with supporting reasons and/or evidence within the same move; and *expository/*non-argumentative moves that present data or reflections on the topic. That is, the writer standpoint may appear in a separate assertive move or as part of an argumentative one, while the expository moves may contain additional reasons, but they mostly include reflections on specific aspects of the topic or side issues unrelated to the topic at stake.

Vilar and Tolchinsky (2021) showed that some elementary school participants were already able to structure their texts integrating assertive and expository moves. However, it was not until high school and university that the text structure fully integrates assertive, expository, and argumentative moves. Moreover, the distribution of the different structures according to age/school level pointed to a

developmental transition from assertion-based texts, where the writer focuses on his or her standpoint as the key component of the text, to exposition-based texts, where provision and discussion of data and evidence become more dominant. That is, there is a developmental transition from texts containing mainly unsupported personal opinions to texts where reflections on the topic provision of reasons and backing evidence prevailed.

Overall, students in upper elementary school are already able to express a standpoint and ground it with evidence. However, we are ignorant of linguistic resources they activate for expressing their stance-taking. Is it in favor or against the topic at stake? From what perspective is the point of view pronounced? How general is the scope of this pronouncement? What is the quality of its grounding? The two studies just reported showed that syntactic, lexical, and structural indicators of AT quality are affected by school level. Would the different dimensions that characterize the quality of the standpoint and its grounding also be affected by schooling experience? The current study was designed to address these questions.

8.4 Study Goals and Methodological Approach

Our first goal was to trace the development of students' rhetorical preferences for expressing and supporting their standpoint from upper elementary school through high school to university level. To keep with a developmental perspective, we controlled for pedagogical input by applying an identical set of classroom activities in the three educational levels. This design enabled us to gauge the extent to which the developmental characterization is affected by pedagogical scaffolding (Goal 2). That is, which of the categories that served to characterize the quality of the standpoint are modified after participating in classroom activities aimed at increasing students' awareness of the features of analytical texts?

We examined a corpus of 88 texts written in Spanish-by-Spanish native speakers from León, Spain, a Spanish monolingual community. There were 28 elementary school students (*M,* 11.62 years; SD, 0.28), 30 high school students (*M*, 15.86 years; SD, 0.67), and 30 university students (*M*, 20.87 years; SD, 2.31). Most elementary schooler's parents were graduates, while parents of secondary school students most were either graduates or high school graduates. At university level, parents' education level was spread between the two educational levels.

Participants were involved in a larger project that aimed to provide a developmental framework that accounts for the individual variability and the developmental changes in the production of analytical texts written by students with different linguistic profiles throughout schooling. During the sequence of classroom activities, participants wrote five texts about three topics. Given that our goal was to tap developmental changes as well as changes related to pedagogical scaffolding, we examined differences in student's rhetorical preferences for composing the text produced before the implementation of classroom activities and at the end of these activities. The present study is based on a subsample of 88 texts, 2 per student. Texts were

randomly selected among those produced in response to the prompt *what do you think about the freedom to move to countries other than their own*. Results of a pilot showed that the selected topic triggered varied and rich responses. Students produced their texts in the context of their regular classes using a computer. They had 30 minutes to complete the task.

8.5 Pedagogical Input

Later language and literacy development are closely linked to formal schooling (Olson & Oatley, 2014) with students showing a wide variation in success rate (Tolchinsky & Berman, in press). Accordingly, when attempting to trace developmental paths in discourse-related language proficiencies such as text construction, it is imperative to control for pedagogical input to distinguish between changes that result from the ordinary course of development and those that are tied to pedagogical scaffolding. To this end, we developed a methodological design, already applied in the two studies just reported (Aparici et al., 2021; Vilar & Tolchinsky, 2021), that enable to distinguish between developmental changes – throughout school levels – and those that are mobilized by pedagogical input.

In both studies, we controlled for pedagogical input during the period of data gathering by applying an identical set of activities in all the classrooms that took part of the study. The selection of the classroom activities was guided by current models of writing development and processes and was intended to raise participants' awareness on the main features of analytical writing. To be clear, our goal was not to prove the quality of the classroom activities against other forms of pedagogical action but to homogenize the pedagogical input and to distinguish between changes that occur in the texts throughout school level and those that occurred before and after the application of the classroom activities.

The set of activities was developed in seven lessons during which each participant was asked to produce five texts. Table 8.1 displays the sequence of activities in each lesson.

The first text (T1) was written before the set of classroom activities, the three following texts (T2, T3, and T4) were written during the program of activities, and the last one (T5) was written 1 month after the application of the program. We used the same prompt for T2, T3, and T4, whereas for T1 and T5, we used two different prompts. Consistent with the goal of providing a homogeneous pedagogical input, the classroom activities were identical for the three school levels, but teachers' verbal instructions in the different activities were slightly modified to provide adequate scaffolding to the younger group of participants.

Table 8.1 Brief description of the classroom activities in each lesson

Lesson	Learning activities
Lesson 1	Introduction of the context and purpose of the project and discussion of debatable *topic examples* based on students' own experiences Production of text 1 on *Freedom of dress*
Lesson 2	*Pre-writing questionnaire:* Students are asked to self-evaluate their knowledge on the topic Production of text 2 on *Freedom of movement* *Post-writing questionnaire*: Students are asked again to self-evaluate their knowledge on the topic
Lesson 3	*Individual and shared text reading*: Students read individually and with the teachers two texts on *Freedom of movement* expressing divergent standpoints and supporting evidence *Text analysis*: In dyads, students discuss and underline the standpoint, arguments, and supporting evidence of each text and complete a workout sheet identifying these texts' elements Production of text 3: second text on *Freedom of movement*
Lesson 4	*Text evaluation*: In dyads, students go over two of the texts produced by their classmates and evaluate them using a rubric that focuses on author's knowledge of the topic, clear and defined standpoint, evidence used, organization, vocabulary, and grammar
Lesson 5	*Results*: Students visualize the scores obtained in the previous evaluation and reflect on the results obtained by the group focusing on their weak and strong points *Authentic samples*: For each key component, the teacher shows authentic (anonymous) samples extracted from lesson 3 texts for students to reason about the received scores
Lesson 6	*Video*: The project coordinators send a video message to motivate students for writing another text on the same topic Production of text 4: third text on *Freedom of movement*
Lesson 7	Production of text 5 on *Rewards and punishments* 6 weeks after the intervention

8.6 Text Analysis

Each text was segmented in rhetorical moves, the unit of analysis. Several indicators served to define each move frontier: change in the communicative goal of the fragment, change of topic, punctuation (periods), switch from affirmative to negative modality, and/or discourse markers.

Three main types of moves were identified: *assertive*, *argumentative*, and *expository*. The first two contain a claim expressing the writer's standpoint on the topic. However, *assertive moves* express the writer position on the topic without evidence grounding it within the same move. In contrast, *argumentative moves* contain both a claim expressing the writer's standpoint and reasons, facts, statistics, and empirical proofs that function as evidence grounding the specific claim within the same move. *Expository moves* contain no claims but only facts or empirical data and definitions of terms that might be related to the topic but do not function as evidence for a specific claim. An inter-rater agreement between one of the authors and an independent rater calculated on 100 texts (5% of the corpus) was .89 and on move type

identification was .94 with a Cohen's κ .92. For the present analyses, we only coded *assertive* and *argumentative* moves because they explicitly manifest the writer outlook that may appear in a separate assertive move or as part of an argumentative move. For each move, we coded five dimensions of these claims: (1) *position*, (2) *orientation*, (3) *reference*, and (4) *verbal formulation*. In addition, we coded (5) the kind of *support/ground* students provide to their standpoint that usually appears as part of the argumentative move:

1. *Position* refers to the writer's take on the topic at stake. It was coded as:
   - In favor (PF)

Example 8.4
Tenemos que ayudar a la gente

> We must help people
> *que lo necesita*
> who needs it
> *permitiéndole el acceso a nuestro país*
> allowing their access to our country
> *así como otros países deben permitirnos el acceso a nosotros*
> just as other countries must allow us to access

- Against (PA): centered in the negative aspects

Example 8.5
Solo que en otros países tampoco podemos acoger a todos

> Only that in other countries we cannot welcome everyone either
> *porque son muchos*
> because they are many
> *y hay gente*
> and there are people
> *que está en contra de eso*
> who are against it

- Two-sided (PS): presents "the pros and the cons"

Example 8.6
La manera más fácil de solucionar este problema sería

> The easiest way to fix this problem would be
> *prohibiendo la entrada de esta gente*
> banning the entry of these people
> *pero no es la solución*
> but it is not the solution
> *ya que son personas de grandes necesidades*
> since they are people of great needs
> *y deberían seguir desplazándose*

and they should keep scrolling
aunque esto debería estar controlado
although these should be controlled

- Neutral (PU)

Example 8.7
Es cierto

It's true
que, en cuestiones geopolíticas, debemos determinar una serie de límites
that, in geopolitical matters, we must determine a series of limits
para poder estudiar una región
to be able to study a region
realizar transacciones comerciales
carry out business transactions
construir vías de transporte
or build transport routes
en definitiva, para organizar nuestro mundo
in short, to organize our world
pero no debemos olvidar
but we must not forget
que todos somos humanos
that we are all humans

2. *Orientation* refers to the perspective from which the writer presents his/her standpoint. It can be:

   - *Writer oriented (CW)*: The writer approaches the topic from a personal perspective usually with first-person singular or plural verbal forms and provides an opinion/view, a personal appreciation that tends to be affective or prescriptive, using obligation verbs.

Example 8.8
Personalmente opino

I personally think
que la libertad de desplazamiento es buena
that freedom of movement is good
si quieres hacer turismo en pequeñas cantidades
if you want to do tourism in small quantities

- *Audience oriented* (CA): The writer considers the (potential) audience, the opinion of other people, with a frequent use of second-person singular verbal forms.

Example 8.9
Todas las personas somos libres

All people are free
y tenemos el mismo derecho

and we have the same right

- *Topic oriented* (CT): The writer focuses on the content, reflecting on/qualifying the topic at stake without explicit mention of personal take. There are no affective components but an impersonal approach. Aspects of the topic are the object of the claim.

Example 8.10
Las personas deberían ser libres de

People should be free
elegir
to choose
dónde quieren vivir
where they want to live
independientemente de dónde hayan nacido
regardless of where they were born

- *Meta-topic orientation* (CM): The writer reflects on the topic and uses metatextual terms to qualify his/her reflection. Although sometimes appear self-reference elements, the general reflection on the topic predominates. The writer may appeal to superordinate recasting of the topic.

Example 8.11
En conclusión, no debería prohibirse la entrada de ninguna persona a un país

In conclusion, no person should be prohibited from entering a country
sea de la cultura que sea
whatever his culture it is
de su raza, su religión
his race, his religion
porque esto en vez de ser una medida
because this instead of being a measure
para proteger el país
to protect the country
pasaría a ser un problema de discriminación
would become a problem of discrimination

- *Setting/situation* (CS): The writer brings a fact, a detail, and an information to set a context.

Example 8.12
América debería tener libre desplazamiento

America should have free movement
en el que todas las personas deberían ser libres
in which all people should be free
de ir
to go

donde quisieran
where they wanted

3. *Reference* relates to how general or specific is the scope of the claim expressing the writer's standpoint. The scope can be:

   - *General* (RG)*:* the claim has a general, ample scope.

Example 8.13
Todo el mundo tiene derecho a

Everyone has the right to
desplazarse a países distintos al suyo
move to countries other than their own
si viaja legalmente y con el equipaje adecuado
if you are traveling legally and with the proper baggage
También los minusválidos pueden viajar
Disabled people can also travel

- *Specific* (RS)*:* the claim applies to a more specific group, context, or circumstance.

Example 8.14
y sinceramente lo que está haciendo Donald Trump

and honestly what Donald Trump is doing
me parece fatal
I totally don't like
que haga una frontera con México
make a border with México
ya que no deja pasar a nueva gente a España
since it doesn't let new people get Spain

4. *Verbal formulation* refers to how the standpoint is expressed.

   - *Assertion* (FA)*:* a strong, firm statement.

Example 8.15
pero no debemos caer en el estereotipo

but we must not fall into the stereotype
y etiquetar a los ciudadanos de otros países por su gentilicio, por su credo o por su forma de vestir
and label the citizens of other countries by their ethnicity, by their creed or by their way of dressing

- *Tempered assertion* (FT): the use of qualifiers (modals, certain adjectives, etc.) reduces the scope or strength of the assertion.

Example 8.16
A mí me parece

It seems to me
que deberían dar el dinero a los de nuestro país
that they should give the money to those of our country
y luego ya ayudar a los inmigrantes
and the help immigrants

5. Support/ground provided to the writer standpoint:
   - *Topic oriented* (GT)*:* provides explanation/justification/reason to the topic

Example 8.17
Desde mi punto de vista está bien la libertad entre los diferentes países

From my point of view, freedom between different countries is fine
porque hay muchas ventajas
because there are many advantages
porque se disfruta de muchas cosas buenas
because you enjoy many good things

- *Data/example* (GD) related to the topic

Example 8.18
no por ello esta migración puede ser incontrolada

not for that reason that migration can be uncontrolled
(como está siendo)
(how is it going)
y provocar problemas económicos y laborales en las personas de origen de ese país, por ejemplo, con el paro
and cause economic and labor problems in the people of origin of that country, for example, with unemployment

- *Social/legal* (GS)

Example 8.19
A mí me parece

It seems to me
que hay mucha gente
that there are many people
que vive en países en guerra
living in countries at war
y necesitan
and they need
inmigrar a otros países
immigrate to other countries
para buscar ayuda
to seek help

- *Personal* (GP)

Example 8.20
Pero también creo

> But I also think
> *que es importante*
> that it is important
> *que haya un control en cada país*
> that there is a control in each country
> *de quiénes son*
> whose they are
> *los que entran y salen de él*
> those who enter and leave it
> *porque actualmente en un mundo donde vivimos con miedo por el terrorismo yo me siento más segura*
> because, currently, in a world where we live in fear of terrorism I feel safer
> *si esto se controla*
> if this is controlled

- *No ground* (GN)

Example 8.21
yo creo

> I think
> *que las personas que vienen en pateras cruzando el mar y*
> that people who come in boats crossing the sea and
> *jugándose la vida para huir de su país*
> risking their life to flee their country
> *que está en guerra*
> which is in war
> *y cuando lleguen aquí*
> and when they get here
> *y que no les dejen pasar*
> and they don't let them pass
> *me parece una injusticia*
> it seems to me an injustice

8.7 Results

The quality of student's standpoint in analytical text writing was characterized in terms of (1) *position* toward the topic at stake, whether in favor, against, or two-sided position; (2) *orientations* from which the standpoint is established; (3) generality *reference*; (4) strength of the *verbal formulation*; and (5) type of grounding provided to the standpoint. We aimed at determining the influence of school level on these rhetorical preferences and then the extent to which preferences are modified

by pedagogical action. Accordingly, we first present results regarding text 2, the text produced before the application of the classroom activities, and, thereafter, the results concerning text 4 produced after the application of these activities.

8.7.1 Development of Rhetorical Preferences by School Level (Goal 1)

Each text was divided into rhetorical moves, spans of discourse that fulfill different functions and constitute our unit of analysis. Table 8.2 displays the number of rhetorical moves in text 2.

Most texts included one or two moves, and the few texts that include more than five moves were from high school and university. Some texts did contain moves that were neither assertive nor argumentative. They were expository moves containing reflections, reasons, or descriptions that might be related to the topic but did not manifest the writer standpoint. Thus, further analyses were focused on assertive and argumentative moves and excluded expository moves. Table 8.3 shows the proportion of assertive and/or argumentative moves over the total number of moves.

The proportion of both assertive and argumentative moves diminished with school level. Assertive moves diminished across the three levels, while argumentative moves decreased from high school to university but without attaining significance.

In Table 8.4, we present the distribution of the assertive (MOAS) and argumentative moves (MOAR) by categories of analysis and school level. Due to the non-normal distribution of the variables, we applied the Kruskal-Wallis non-parametric test for independent samples to probe differences in the distribution of categories by school level and text.

Moves reflecting a position in favor of freedom of movement to move to countries were majority and showed an increase from elementary to high school but a further decline at university. However, only assertive moves reflecting a two-sided position, implying pros and cons in such freedom, increased significantly with school level (p = .049). Positions against that freedom were very scarce and decreased from elementary to high school with slight further increase at university. Moves that do not express a clear position were also very scarce, tending to decrease. Some other variables showed changes with school level but without attaining significance.

Centered writer orientation to endorse students' point of view had an even distribution across school level. Moves with audience, topic, and meta-topic orientation were lower in elementary school than in high school and university. In contrast, situationally oriented perspectives were more common in elementary and university level than in high school. General reference increased from elementary to high school with a slight decline in university, whereas specific reference was higher in elementary school but then increases at university. Finally, assertive verbal

Table 8.2 Number of rhetorical moves in text 2 by school level

Number of moves	Elementary school	High school	University
0	5	4	8
1	9	5	7
2	8	8	6
3	4	5	2
4	0	4	3
5	2	1	2
6	0	3	1
7	0	0	1

Table 8.3 Proportion of assertive and/or argumentative moves over the total number of moves by school level

	Elementary school $n = 28$	High school $n = 30$	University $n = 30$
Moves	Text 2		
Assertive	20.67	17.55	14.00
Argumentative	19.74	19.57	11.14
Total	40.41	37.12	25.13

formulations of these moves were more popular than tempered formulations. While assertive formulations were higher in high school, tempered ones steadily increased with schooling.

As for argumentative moves, only two variables showed significant differences in their distribution by school level: a two-sided position toward freedom of movement across countries ($p = .005$) and generality of reference ($p = .038$). Both argumentative moves that reflected a two-sided position and moves with ample scope of reference increased from elementary to high school and then decrease toward university. All other variables showed changes with school level, but none attained significance.

Argumentative moves in favor of freedom of movement were the preferred option increasing from elementary to high school and then decreasing in university. Position against showed an inverse pattern, occurrences in high school were lower than in elementary and university. Although very scarce, neutral positioning was higher in high school.

Moves that approached the topic from a writer orientation were more common than those that approached it from other perspective (audience, topic, meta-topic, and situational). However, these showed a similar distribution: increase from elementary to high school and decrease toward university.

Verbal formulation of claims was mostly assertive increasing from elementary to high school. A similar pattern was shown by tempered assertion although less common. Moves with grounds to support writer claims in terms of social concerns were the most common and increased from elementary to high school and then stabilized. Support in terms of topic-related issues, personal grounds or lack of grounds to

Table 8.4 Distribution of assertive (MOAS) and argumentative moves (MOAR) by categories of analysis and school level in text 2

Text 2		MOAS			MOAR		
		Elementary school $n = 28$	High school $n = 30$	University $n = 30$	Elementary school $n = 28$	High school $n = 30$	University $n = 30$
Position	In favor PF	.68	.57	.57	.57	.77	.57
	Against PA	.07	.11	.11	.11	.07	.20
	Two-sided PS	.14	.04	.04	.04	.37	.07
	Neutral PU	.00	.00	.00	.00	.07	.00
	No positioning PN	.04	.00	.00	.00	.00	.00
Orientation	Writer CW	.43	.32	.32	.32	.47	.47
	Audience CA	.11	.14	.14	.14	.17	.10
	Topic CT	.11	.07	.07	.07	.30	.17
	M-topic CM	.04	.00	.00	.00	.07	.00
	Situation CS	.25	.18	.18	.18	.27	.10
Reference	General RG	.50	.21	.21	.21	.77	.47
	Specific RS	.43	.50	.50	.50	.50	.37
Formulation	Assertive FA	.57	.61	.61	.61	.80	.53
	Tempered FT	.36	.11	.11	.11	.47	.30
Grounds	Topic				.04	.23	.20
	Data				.32	.27	.07
	Social				.32	.50	.47
	Personal				.04	.17	.07

support writers' standpoints followed a similar pattern. In contrast, moves that grounded this standpoint with provision of data decreased with school level.

To sum, assertive and argumentative moves showed similar patterns of preferences across the three school levels in some categories. They were mostly in favor of freedom of movement between countries assertively pronounced from a writer orientation. Both types of moves showed tendency to increase to more distanced two-sided position. However, assertive two-sided moves significantly increased across schooling, while argumentative moves with a similar position increased up to high school and then decreased. In contrast, assertive and argumentative moves showed a different pattern of response in the scope of reference. While assertive moves embracing general reference tended to decrease from elementary school, argumentative moves with generality of reference tended to increase from elementary school. As students advanced in school level, the position implying pros and

cons (the two-sided position) was expressed by means of assertive moves with an ample scope of reference:

Example 8.22
Hay que buscar soluciones, sí

We must look for solutions, yes,
pero tampoco podemos darles todo
but we cannot give them everything
desde el primer momento
from the first moment either
pues todos somos iguales
because we are all equal
y tenemos los mismos derechos
and have the same rights

More than by means of argumentative moves that also restrict their scope of reference:

Example 8.23
En mi opinión, por una parte

In my opinion, on the one hand
está bien
it is good
que no los dejen entrar
that they are not allowed to enter
Como se ha visto hasta ahora
As seen so far
el Estado Islámico está utilizando esta situación
the Islamic State is using this situation
para introducir a las personas retornadas en los países europeos
to introduce returnees into European countries
Aún así,
Even so,
no debería [*] de pagar todos los justos por pecadores
all the righteous should not pay for sinners
ya que hay mucha gente
since there are many people
que sí tiene la necesidad de
who do need
abandonar su país
to leave their country

8.7.2 Influence of Pedagogical Work on Rhetorical Preferences (Goal 2)

To assess the extent to which students' rhetorical preferences for expressing assertive and argumentative moves were influenced by classroom activities, we applied the same categories of analysis to text 4, produced after the classroom activities, and then compared the distribution of assertive and argumentative moves in text 2 and text 4 by means of a Wilcoxon signed rank test. Table 8.5 displays the number of rhetorical moves in text 4 by school level.

The number of moves across school level ranged from one to five. Most texts included more than two moves, and the distribution was quite similar across school levels. Only one text in high school but five in university lacked assertive and argumentative moves. That is, texts without explicit mention of a standpoint were less frequent before applying classroom activities (text 2) than after the pedagogical work (text 4), but the differences were not significant (CHI = 10. 17.323 $p = .068$).

Table 8.6 displays the proportion of assertive and argumentative moves over the total number of moves.

The proportion of assertive moves did not show significant differences with school. It was slightly lower in high school compared to elementary and university level. In contrast, the proportion of argumentative moves decreased significantly with school level ($p = .008$).

Table 8.7 displays the distribution of assertive (MOAS) and argumentative moves (MOAR) by categories of analysis and school level.

Four features of assertive moves that point at a detached discourse stance increased significantly with school level: lack of clear positioning (PN $p = .027$), audience-oriented perspective (CA $p = .012$), general scope of reference (RG $p = .004$), and tempered formulation (FT $p = .035$). Students choose to either hide their position vis-à-vis the topic at stake or put their audience in a purported situation to endorse it. Their claims have a general (impersonal) scope of reference (see Example 8.13) and are verbalized in a mitigated way (see Example 8.16). Other changes shown by assertive moves due to school level did not attained significance.

Assertive moves reflecting a writer orientation were rather popular, slightly higher in high school than in elementary school but decreasing in university. Topic-oriented moves showed an even occurrence across the three school levels, while moves containing meta-topic reflections increased with school level. Standpoints based on concrete situations and specific scope of reference were higher at university. Finally, the more assertive formulations steadily increased across the three levels of schooling. Three variables related to the orientation from which the writer standpoint was taken showed significant differences in their distribution by school level. Claims from a writer orientation decreased significantly with school level ($p = .000$), whereas claims from a topic orientation increased significantly ($p = .025$), and claims centered in specific situations increased from elementary to high school but remained stable afterward. The tendency toward detachment with schooling that emerged in text 2 was reinforced in text 4. Assertive moves appear more nuanced

Table 8.5 Number of rhetorical moves in text 4 by school level

Number of moves	Elementary school $n = 28$	High school $n = 30$	University $n = 30$
0	0	1	5
1	5	5	2
2	12	6	7
3	6	12	7
4	4	6	6
5	1	0	3
Total	28	30	30

Table 8.6 Proportion of assertive and argumentative moves over the total number of moves

Moves	Elementary school $n = 28$	High school $n = 30$	University $n = 30$
Assertive	20.39	18.74	22.31
Argumentative	25.15	14.68	12.30
Total	45.54	33.42	34.61

because they were characterized by a less strong positioning, a broader more impersonal scope of reference, and more tempered, audience-oriented perspective. At the same time, there was an increase in argumentative moves defending writers' standpoint considering the topic and specific situations related to it:

Example 8.24
Esto no siempre es bueno

This is not always good
ya que la mayoría de estas personas suelen tener
since most of these people tend to have
unos hábitos de vida muy diferentes a los de la sociedad
very different lifestyles from those of the society
a la que se trasladan
to which they move
lo que genera muchos conflictos sociales
which generates many social conflicts
que hacen
that mean
que nunca sean aceptados
that they are never accepted
También algunos de estos inmigrantes
Also, some of these immigrants
intentan entrar en el país de forma ilegal
are attempting to enter the country illegally
por lo que intentan entrar en la nación a costa de
thus attempting to enter the nation

Table 8.7 Distribution of assertive (MOAS) and argumentative moves (MOAR) by categories of analysis and school level in text 4

Text 4		MOAS			MOAR		
		Elementary $n = 28$	High school $n = 30$	University $n = 30$	Elementary $n = 30$	High school $n = 30$	University $n = 30$
Position	In favor	.61	.80	1.00	1.13	1.30	.94
	Against	.29	.23	.27	.48	.25	.29
	Two-sided	.25	.47	.33	.00	.05	.18
	Neutral	.00	.00	.00	.00	.00	.00
	No positioning	.04	.00	.20	.00	.00	.06
Orientation	Writer	.86	.90	.63	1.35	.65	.35
	Audience	.04	.20	.43	.09	.10	.24
	Topic	.21	.23	.27	.09	.30	.47
	M-topic	.00	.07	.17	.04	.20	.06
	Situation	.07	.10	.30	.04	.35	.35
Reference	General	.32	.90	1.13	.57	.60	.59
	Specific	.86	.60	.67	1.04	1.00	.88
Formulation	Assertive	1.07	1.23	1.27	.61	1.25	1.00
	Tempered	.11	.30	.53	.11	.40	.41
Grounds	Topic				.22	.15	.35
	Data				.39	.10	.12
	Social				.83	1.30	.82
	Personal				.17	.05	.24
	None				.00	.10	.00

poner en grave riesgo sus vidas
at the cost of serious risk to their lives

A Wilcoxon signed rank test comparing the distribution of assertive moves in text 2 and text 4 showed that the median of moves expressing both a position against freedom to move from own country (PA) and a two-sided position (PS) was higher in text 4 ($p = .001$ and $p = .044$, respectively). Similarly, the median of moves displaying a writer-oriented perspective ($p = .001$), a specific reference ($p = .002$), and assertive formulations ($p = .001$) was significantly higher in text 4.

The same signed rank test comparing argumentative moves in text 2 and text 4 showed that the medians of students' position against freedom of movement (PA), two-sided positioning (PS), specific scope of reference (RS), and provision of grounds based on social concerns (GS) differed significantly. Moves against freedom of movement were more common in text 4 than in text 2 ($p = 037$); a two-sided positioning was higher in text 2 ($p = .033$), and moves with a specific scope of reference were more common in text 4 ($p = .025$). Similarly, moves providing social reasons to support writers' standpoint were concentrated in text 4.

Results of the comparison drawn between texts 2 and 4 showed that after the application of the classroom activities, students' standpoint was less assertively expressed. Students' standpoint was nuanced by mentioning specific situations and events that appeared in the texts read in class that restrict the freedom of movement but without abandoning a writer orientation. However, texts become less controversial (less argumentative moves and two-sided position more frequent in text 2) and supported by social reasons.

8.7.3 Developmental and Tutored Changes in Analytical Text Writing

We asked from students from upper elementary school through high school to university to write on a controversial and actual issue: freedom of movement to countries different of their own. The topic was proposed at a time of strong migratory movements throughout Europe with mass media documenting the hardships suffered by migrants when trying to cross borders.

Our first goal was to tap how these adolescents and young adults communicate their stance on the topic. We examined their rhetorical preferences before any pedagogical action, attempting to detect the changes that occur in the expression of their standpoint because of cognitive maturation and social and schooling experience. Indeed, formal education offers an "immersion in the conventions of comprehending and producing written texts in a variety of domains" (Olson & Oatley, 2014, p. 7). To characterize this act of communication, we used several dimensions that feature an act of stance-taking (Berman, 2005; Du Bois, 2007). We charted students' *position* toward the target topic (in favor, against, two-sided, or none), the *orientation* from which they established their standpoint (writer, audience, topic, meta-topic, or situational), how general or specific is the standpoint *reference*, and how assertive or tempered is its *verbal formulation*. We also explored the type of grounding students used (social, personal, topic based, situational).

Our second goal was to ascertain whether and how these untutored changes in the expression of stance-taking are modified by a pedagogical action. To this end, we supplied a set of classroom activities designed to raise students' awareness on the distinguishing features of analytical writing. We controlled for pedagogical input to distinguish between changes that result from the ordinary/schooled course of development and those that are tied to pedagogical scaffolding.

As detailed in Table 8.1, the writing task was contextualized, and their goals were defined (lesson 1) so that repeated text writing on the same topic was motivated. Students participated in individual and shared text reading of topic-related texts expressing divergent standpoints and supporting evidence (lesson 3). They discussed and identified standpoint, arguments, and supporting evidence of each text (lesson 3). Students also evaluated texts produced by their classmates using a rubric that focuses on author's knowledge of the topic, clear and defined standpoint,

evidence used, organization, vocabulary, and grammar (lesson 4) and visualize the results obtained by the group focusing on their weak and strong points (lesson 5). Moreover, students reasoned about the evaluated text features using authentic examples (lesson 5).

We decided to raise students' awareness to the components of analytical texts because of the role this text type plays in academic settings and its relationship with academic success. Certainly, academic essays require much more than an opinion or claims in favor or against a certain matter. They demand careful grounding of stance-taking and serious consideration of pros and cons.

The analysis of the written texts produced both before and after the classroom activities leads us to distinguish rhetorical preferences that are majoritarian from those that show a developmental pattern. Before participating in the classroom activities, students' standpoint appeared in favor of freedom of movement, had an orientation centered on the writer opinions, feelings of beliefs, showed a general scope of reference – they referred to humanity and people – and it was assertively formulated, without nuances, and supported by social grounds. To assert their claims, students also mentioned concrete situations migrants face when crossing borders or measures taken by governors to impede movement across countries. Situationally oriented assertion functioned as a sort of empirical support.

This general pattern of preferences did not show significant changes throughout schooling except in a two-sided positioning and generality of reference. Overall, students' standpoint on the topic appeared firm; one-sided; writer-centered; assertively formulated, covering a wide reference; and grounded in social reasons. The dimensions that shape the overall quality of their standpoint did not suffer notable changes throughout schooling except for the reduced preference toward a two-sided position and generalized reference.

However, students' participation in the classroom activities brought about important changes. The number of dimensions affected by school level augmented, and the developmental changes these dimensions undergo pointed at a more detached and nuanced expression of students' standpoint. After the classroom activities, we found a significant increase in lack of clear positioning, audience-oriented perspective, general scope of reference, and tempered formulation. Against the one-sided, writer-centered, assertively formulated standpoint in the texts produced before the activities, rhetorical preferences after the activities were differently distributed. Students were prone to avoid strong unilateral positioning; they created a common situation with the (potential) reader to frame their point of view and restricted the strength of the verbal formulation of their claim. These changes were notable in the assertive moves. However, argumentative moves were equally inclined toward a more detached expression of the standpoint. Claims from a writer orientation decreased significantly with school level, whereas claims from a topic orientation increased significantly, and claims centered in specific situations that served to support their view increased from elementary to high school.

The results of the analysis of the quality of stance-taking are aligned with previous findings (Vilar & Tolchinsky, 2021). Findings point at a transition from assertive opinions to tempered, audience-oriented, and better-grounded standpoints in

response to a controversial topic. This transition is supported by results of the comparison across texts (before and after the application of the classroom activities).

Results of the comparison between expressions of standpoint in assertive moves across texts showed that positions against freedom of movement were more frequent in the texts produced after the application of classroom activities. Results of a similar comparison drawn for argumentative moves showed that positions against freedom of movement, two-sided positioning, specific scope of reference, and provision of grounds based on social concerns were also more concentrated in text 4. Students' standpoint was assertively expressed considering objections and minuses that restrict the freedom of movement. They also used specific situations and events that appeared in the texts read in class but without abandoning a writer orientation. However, texts became less controversial (with less argumentative moves) and more analytical.

This study is innovative in two aspects. Firstly, based on the notion of discourse stance (Berman, 2005), we have developed a framework for featuring the expression of standpoint in analytical writing. This framework details the different dimensions that shape the expression of stance-taking position, orientation, reference, verbal formulation, and grounding.

Secondly, we have applied a methodological approach that helps to distinguish untutored changes in the expression of standpoint from those that are sensitive to pedagogical scaffolding. This approach provides both a developmental baseline for different school levels and points at specific abilities that are more challenging to educational intervention. In the current study, the application of this approach unveiled, for example, that an assertive, one-sided verbal formulation is a sort of baseline in elementary school. In contrast, tempered formulation and counterclaims are more challenging and later developing features of analytical text writing.

When properly dealt in the classroom, analytical essays offer an opportunity for young writers to express their voice and their individuality, something that is inherent to youth but that, unfortunately, is often denied in writing tasks. However, this type of text requires a complex balance between opinion and evidence. Analytical essays require going beyond personal assertiveness providing proper grounding and anticipating counterargumentation. These specific requirements are not typical of the narrative or strictly expository texts with which students are more familiar. They explain why analytical writing is a far more protracted achievement (Schleppegrell, 2004).

8.8 Final Remarks

The analytical framework we applied and the results we obtained enable us to advance some suggestions to facilitate learning of analytical writing:

Adjust Instruction to the Needed Resources of the Students
The different aspects we considered for featuring the expression and grounding of students' standpoint may serve to guide teachers' instructional actions for a better supply of the linguistic resources that students need to fulfill the communicative functions of analytical writing. Teachers could resort to a "bottom-up" explanation of analytical text features by means of illustrating and discussing different options of positioning, orientation, and verbal formulation instead of resorting to "top-down" characterizations of the text type that are usually schematic and general.

Enhance Self-Regulation
Similarly, highlighting expressive options and diverse ways of grounding own perspective would be useful for more precise feedback during text revision as well as for constructing analytical rubrics for text evaluation. Teachers' provision of precise feedback and use of analytical instruments for self- and hetero-evaluation serve students to increase their repertoire of linguistic resources, find alternative expressions, and identify errors during both the textualization and revision processes. The goal is to improve self-regulation by means of scaffolding strategies and tools that support the writing processes.

Integrate Reading and Writing Tasks (Reading to Write)
Our study showed that reading and discussing written materials that address the topic at stake constitute a useful source of linguistic means of expression and different perspectives. Students' rhetorical options are enriched by such activities, and their texts display more decentered as well as less one-sided and emphatic perspectives.

Further studies are needed to prove the applicability of the analytical framework we developed for this study to analytical texts on different topics. Moreover, the methodological approach we employed was useful for taping developmental changes and the effect of pedagogical action on syntactic and discursive features of analytical writing in previous studies (Aparici et al., 2021) and in the expression of stance-taking in the present one. Thus, future studies will be devoted to applying this approach to other features of analytical writing that need systematic research such as the quality of argumentation.

References

Allen, L. K., Likens, A. D., & McNamara, D. S. (2019). Writing flexibility in argumentative essays: A multidimensional analysis. *Reading and Writing, 32*, 1607–1634. https://doi.org/10.1007/s11145-018-9921-y

Aparici, M., Cuberos, R., Salas, N., & Rosado, E. (2021). Linguistic indicators of quality in analytical texts: Developmental changes and sensitivity to pedagogical work. *Infancia y Aprendizaje, 44*(1), 9–46. https://doi.org/10.1080/02103702.2020.1848093

Bazermann, C., Little, J., Bethel, L., Chavkin, T., Fouquete, D., & Garufis, J. (2016). *Escribir a través del Currículum. Una guía de referencia*. [Write trough the Curriculum. A reference guide] Universidad Nacional de Córdoba. [National University of Cordoba]

Berman, R. A. (2005). Introduction: Developing discourse stance in different text types and languages. *Journal of Pragmatics, 37*(2), 105–124.
Berman, R. A., Ragnarsdottir, H., & Strömqvist, S. (2002). Discourse stance. *Written Language and Literacy, 5*(2), 255–290.
Chala, P., & Chapetón, C. (2012). EFL argumentative essay writing as a situated-social practice: Review of concepts. *Folios, 1*, 23–36. https://doi.org/10.17227/01234870.36folios23.36
Du Bois, J. W. (2007). The stance triangle. In R. Englebretson (Ed.), *Stancetaking in discourse: Subjectivity, evaluation, interaction* (pp. 137–182). Benjamins.
Nelson, N. W., & Van Meter, A. M. (2007). Measuring written language ability in narrative samples. *Reading & Writing Quarterly: Overcoming Learning Difficulties, 23*(3), 287–309. https://doi.org/10.1080/10573560701277807
Olson, D. R., & Oatley, K. (2014). The quotation theory of writing. *Written Communication, 31*(1), 4–26. https://doi.org/10.1177/0741088313515164
Perelman, Ch., & Olbrechts-Tyteca, L. (1958/1989). *Traité de L ´argumentation. La nouvelle rhétorique. Editions de L ´université de Bruxelles.* Traducido por Julia Sevilla Muñoz: Tratado de la argumentación: La nueva retórica. Ed. Gredos. [Translated by Julia Sevilla Muñoz: Treatise on argumentation: The new rhetoric. Ed. Gredos.]
Purves, A. C. (1988). *Writing across languages and cultures: Issues in contrastive rhetoric* (Vol. 2). SAGE.
Ramírez, R. (2010). *Didácticas de la lengua y de la argumentación escrita*. Universidad de Nariño. [Didactics of language and written argumentation. University of Nariño.]
Schleppegrell, M. J. (2004). *The language of schooling. A functional linguistics perspective*. Lawrence Erlbaum. https://www.routledge.com/The–Language–of–Schooling–A–Functional–Linguistics–Perspective/Schleppegrell/p/book/9780805846775
Stavans, A., Seroussi, B., & Zadunaisky Ehrlich, S. (2019). Literacy-related abilities' effects on argumentative text quality structure. *Journal of Literacy Research, 51*(3), 315–335. https://doi.org/10.1177/1086296X19859515
Tolchinsky, L., & Berman, R. (in press). *Growing into language. Developmental trajectories and neurological underpinnings.* Oxford University Press.
Tolchinsky, L., Rosado, E., & Aparici, M. (2018). Escribir para pensar y persuadir de manera fundamentada. [Write to persuade in a well-founded way]. *Didàctica de la llengua i la literatura, 76*, 14–21.
Upton, T. A., & Cohen, M. (2009). An approach to corpus-based discourse analysis: The move analysis as example. *Discourse Studies, 11*, 585–605.
Vande Kopple, W. J. (1998). Relative clauses in spectroscopic articles in the Physical Review, Beginnings and 1980: Some changes in patterns of modification and a connection to possible shifts in style. *Written Communication, 15*, 170–202. https://doi.org/10.1177/0741088398015002002
Vilar, W. H., & Tolchinsky, L. (2021). The rhetorical structure of analytical writing: A developmental approach. *Text & Talk – An Interdisciplinary Journal of Language Discourse Communication Studies*. https://doi.org/10.1515/text-2019-0228

Part III
Difficulties in Acquiring and Developing Writing Skills

Chapter 9
Morphological Analysis and Its Impact on Written Language Development in Children With and Without Language Disorders

Paola Ramírez-Martinell and Alejandra Auza

9.1 Introduction

Children with oral language disorders are also known to develop difficulties concerning written language (Stoeckel et al., 2013). But when families consult a speech-language therapist, it is usually related to delays or difficulties in oral language acquisition, so therapy tends to focus on speech and expressive language intervention for oral communication, leaving aside the acquisition of the written language system, which is regularly considered a school matter.

Although writing is not a school product, but a cultural object resulting from the collective effort of humanity (Ferreiro & Teberosky, 1981. Personal translation), children relate to it through multiple ways. They do not wait to enter a classroom to start interpreting how written language works, how it is used, and what are its social purposes. Like other cultural objects, writing is an object of knowledge, something that can be reflected about, thought about, and theorized about. So, when we put children in situations where they can interact with written language, they do it (Ferreiro, 1983, 1991, 2006, 2018). But even when there is an identified evolution concerning the intellectual possibilities that children gradually develop around the writing system (Ferreiro & Teberosky, 1979), there are cases where the language processing develops in atypical ways influencing in the expressive and receptive uses of oral and written language (Coloma et al., 2020; Coloma et al., 2010) and impacting on personal, social, academic, and professional areas (Braveman et al., 2011). That said, it is imperative that health and educational professionals attend to

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oral and written language by planning functional and strategic interventions, especially when identifying children with a language disorder.

The purpose of this chapter is twofold: (1) to describe, from a constructivist perspective, how children approach the Spanish writing system and (2) to describe some difficulties that children with language disorders have concerning reading and writing. More specifically, we aim to point out how morphological analysis positively impacts on the acquisition of written language. Lastly, three cases are presented to exemplify how morphological interventions may benefit children with a language disorder.

9.2 Written Language Development

9.2.1 From a Constructivist Approach

"Writing is not transforming what it is heard into graphic forms; neither reading is reproducing what the eye visually picks" (Ferreiro & Teberosky, 1981. Personal translation). Reading and writing are metacognitive processes in which the synthesis and integration of graphic elements are developed in both language production and comprehension abilities (Puertas, 2020). The constructivist approach of psychogenesis has gathered evidence of the way children conceptualize written language before knowing the name of letters. Children gradually create conceptual schemes through which they constantly transform the new information (Dávalos-Esparza, 2017; Díaz-Argüero, 1996; Castedo, 2010; Ferreiro, 2006, 2018; Jiménez Cuéllar, 2018; Molinari, 2015).

Writing includes everything that constitutes a text: the alphabetical and non-alphabetical characters and their form, style, size, graphical disposition, and relationship with other graphical features, such as spaces, images, pictures, other texts, etc. All of these features are taken into account by children from the very first moment they interact with texts; they go (1) from questions such as "What are letters for?", "What do they say?", "Why are they here and not there?", and "What letters can I use to write something?" (2) to formulate hypotheses to answer those questions and (3) to discard or verify their hypotheses. Through that, the information children have about writing transforms and gradually passes from one level of conceptualization to another (Ferreiro, 1991). In what follows, a quick revision of the conceptualization levels of writing identified by Ferreiro and Teberosky (1979) is presented:

Level 1: Figural
Children find out that there are marks that can be read and there are marks to look at. So, they create their first writings using marks that look like letters, but which are not conventional letters.

Level 2: Pre-syllabic
Children find out that to read different things, there needs to be a difference in what is written. At this level, they write using the letters they know. Usually, they use those letters in their proper names, which constitutes their first alphabetic repertoire. And to write different things, they combine those letters looking for graphical distinctions through diversifying the quantity and variety of letters. At this level, children may relate writings to symbolic attributes. For example, following the animal sizes, they might interpret "butterfly" in a writing where there are a few letters, because it is a little creature, and "bear" where there are more letters, because it is big.

Level 3: Syllabic
Children find out that each letter corresponds to a syllable, a process with which starts the phonetization of writing (Vernon, 2004). At this level, children find a certain sonorous correspondence between what it is written and what it is read, so they start producing writings in which a letter, no matter which one, represents a syllable.

Level 4: Syllabic-Alphabetic
Children find that there is a relationship between the sound pattern of a word and what it is written. In this level, children find a sonorous correspondence between the reading aloud emission and its written representation, but in their productions, they still use a letter to represent a syllable. Although, in contrast to the previous level, the used letters are not random, they correspond to the sonority of a part of the represented syllable.

Level 5: Alphabetic
Children find that each letter corresponds to a specific sonorous value. At this point, the correspondence between the reading aloud emission and its written representation amplifies, and children use as many letters as they might need to represent the whole sonorous emission of their writings. But, even when the writings of these children are readable, orthography is not conventional.

From this perspective, the acquisition of reading and writing considers how children interpret the writing system and how their interpretations move along the actual use of texts. So, children are not cataloged as efficient/deficient readers or writers (Dávalos-Esparza, 2016); they are identified in different levels of conceptualization.

9.2.2 From a Cognitivist Approach

The acquisition of reading and writing and its development depend on the phonological awareness that children gain through explicit instruction and systematic practice. Children are taught that words are constituted by sounds which can be segmented into smaller parts and represented by letters (Kilpatrick, 2015). According to this perspective, the work around guided exercises on blending, splitting,

rhyming, comparing, and contrasting words, along with the recognition and naming of letters, is what makes children move from a syllabic awareness to an intra-syllabic awareness and, finally, to a phonemic awareness (Gutiérrez Fresneda & Díez Mediavilla, 2018; Pavelko et al., 2018).

Then, the core of this cognitive perspective is the development of phonological awareness and the work children do around the phonological units that conform words. In contrast, the constructivist approach is based upon the hypotheses and (re) interpretations that children do around the units of texts.

Writing at a word level can be a useful way to compare children's productions. It has been used to evaluate how children deal with analyzing and synthesizing the syllables and phonemes of words (De Barbieri & Coloma, 2004), and in some studies with Spanish-speaking children, it has been found that the assessment of phonological awareness can predict more than 50% of difficulties in word reading (Pratt et al., 2020).

9.3 Written Language Development in Children with Language Disorders

Children's studies on atypical language acquisition and its relationship with later development of literacy are abundant in the specialized literature (Bornstein et al., 2016; Durkin et al., 2015; Norbury et al., 2017; Sanz-Torrent et al., 2010). Bishop et al. (2017) identified that children with language disorders are more likely to persist with language problems into middle childhood and to face educational barriers regardless of the kind of language disorder (receptive, expressive, or both); also these children may have reading and writing difficulties (Acosta et al., 2016).

Language disorders, such as developmental language disorder (DLD, previously known as specific language impairment (SLI)), are a prevalent neurodevelopmental condition that affects different linguistic areas (Leonard, 2014) including acquisition of vocabulary (Leonard & Deevy, 2004; Nation & Snowling, 2004; Pearce et al., 2010), morphosyntax (Conti-Ramsden & Windfuhr, 2002), phonological processing (Catts et al., 2005; Hjetland et al., 2019; Nation, 2019; Montgomery & Windsor, 2007; Aguilar-Mediavilla et al., 2014), reading (Bishop & Snowling, 2004; Pennington & Bishop, 2009), and writing (Hulme & Snowling, 2016; Lervåg et al., 2018). Research on Spanish-speaking children with language disorders and their performance in reading and writing is recent, and it has mainly been studied from the cognitivist approach, considering the development of phonological awareness and prosody (Figueiras, 2017; Jordán et al., 2019; Torres-Bustos et al., 2022).

Other investigations have focused on the recognition and study of some variables implicated in the process of reading and writing. For example, Coloma et al. (2018) have worked with monolingual Spanish-speaking children with language disorders and their typical peers. They identified differences on their reading performance between the two groups. Later, another group led by Coloma et al. (2020) found that

low-level processing of vocabulary and complex sentences impacts on the low reading comprehension DLD children have. This result is explained by the fact that vocabulary and reading comprehension are correlated, since reading provides opportunities for learning new words, a process that allows children to understand written language (Buil-Legaz et al., 2015; Coloma et al., 2020).

Pratt et al. (2020) found that children with DLD performed "at risk" as compared to their typical peers on recognizing the beginning sound of words, on alphabet knowledge, and on the writing of their proper names, but showed more difficulties on comprehension-related emergent reading and writing tasks such as narrative retell and print concept knowledge. Also, Lara and colleagues (2021) found a strong relationship between phonological skills, reading new words, morphosyntax, vocabulary, and reading comprehension, demonstrating that reading difficulties are influenced by multi-causal factors.

However, the impact of morphology in the development of reading and writing in children with language disorders hasn't been widely studied, even when morphemes are the most vulnerable units in Spanish-speaking children with a language disorder (Bedore & Leonard, 2001; Morgan et al., 2013). For this reason, we are considering morphology as a central axis of study and intervention concerning reading and writing in children with language disorders. Focusing on morphology would provide children the opportunity to think about their language (Puertas, 2018), and it can propitiate interventions toward the syntactic and semantic domains, depending on the most affected areas of children with language disorders.

9.4 Morphology and Its Impact on Written Language Development

Morphology studies the inner structure of the words (Di Tullio, 2005) and considers the change of meaning that some words might experience through the process of having segments added to its root: morphemes, which are considered the smallest units of meaning in language. Morphology has been considered in the acquisition and development of reading and writing from both the constructivist and the cognitivist approaches.

From the cognitivist approach, children are instructed to develop the ability to consciously consider the morphological units within words, including the explicit understanding of the relationship between root words and the inflected and derived words (Apel & Lawrence, 2011). This, also known as morphological awareness, sets all the morphemes of a language at the same level of instruction, without considering its syntactic and semantic implications (Apel & Henbest, 2020; Kirk & Gillon, 2009).

The constructivist approach considers that the analysis children do around morphology can be first evidenced in their spontaneous creation of words and in the inferences around the meaning of words (Pérez Pereira & Singer, 1984). From this

perspective, morphological notions develop over time, depending on the complexity of a language (Baumann et al., 2002; Carlisle, 2000, 2003). Spanish morphology is rich (Pena, 1999; Varela, 2005), and its acquisition depends on the gradual evolution of the metalinguistic analysis that children do (Velázquez & Ferreiro, 2015; Velázquez, 2017). For example, the analysis around inflectional morphology happens first (Jackson-Maldonado & Maldonado, 2001, 2017), while the notions around derivational morphemes are still under construction after 6 years of age (Anglin, 1993; Auza, 2006, 2008; Carlisle, 1987; Kuo & Anderson, 2006; Puertas, 2018; Rodríguez Cuevas, 2018; Velázquez, 2017).

But how do children notice that morphemes are represented in writing? This question made by Deacon and Bryant (2005) has also been considered by constructivist researchers (Puertas, 2018; Rodríguez Cuevas, 2018; Velázquez, 2017) who have found that children analyze derivational morphology through texts' analysis and the interpretations they make around morphology go on a syntactic and semantic level. For example, Puertas (2018) has mentioned that "children conceive derivational morphemes as modifiers of the meaning of words, rather than minimal units of meaning" (Puertas, 2018. Personal translation).

In the case of children with a language disorder, the interventional approach to work around morphemes is based on the development of morphological awareness (Apel, 2014; Collins et al., 2020; McLeod & Apel, 2015; Goodwin & Ahn, 2010, 2013; Reed, 2008), which is worked at a word level through tasks on blending, segmenting, comparing, and judging (Apel, 2014).

9.5 Experiences from Intervention

To point out the morphological difficulties that we have seen in children with a language disorder, first we will present some experiences from therapy sessions that have helped on planning interventions focused on morphology, from a constructivist perspective.

Use of Authentic Pieces of Reading and Writing

To learn how to read and write, children have to be confronted with the written culture. Authentic texts from the context where children are immersed into should be used when trying to participate in the development of reading and writing. Once children have observed texts in different places and identified others using texts, they will start to understand that where letters appear "it says something"; and to understand what it says, many developmental considerations need to be done (Vernon, 2004). An example of this can be represented through the following piece of interaction between Memo (3;04), who receives therapy for a speech sound disorder, and his brother (1;09), who is always present while feedback is given to their parents:

Therapist Oh! It is so cool you are wearing the same sweatshirts! (referring to the color).

Memo They are not the same, this has no marks (pointing at his brother's sweatshirt).
Therapist And does yours have marks?
Memo Mine does!
Therapist Oh! And why is that?
Memo Mine says Meeemooo (while he slowly says this, he points with his finger to the letters on his sweatshirt, which represents the garment brand's logo).
Therapist Does it say Memo?
Memo Yes! because it's mine.
Therapist And his?
Memo His shirt says nothing because he doesn't speak yet.

Even when Memo has not received instruction about the name of the letters, Memo's analysis is interesting because it allows us to identify the level of conceptualization that he has with respect to "the written," but also its relation to "the oral." Memo recognizes that the "marks say something" and that they have a logic underneath. He manifests that the marks can be read and that reading comes with certain rhythm and directionality. Besides, what he says about the fact that his brother does not speak is an interesting explanation about why his brother's sweatshirt didn't have marks, because if it had them, he wouldn't be able to read what they say.

Planning Opportunities to Write and to Talk About It
When children identify that there are "marks" that say things, they start using them. As we said when we presented the conceptualization levels of writing, at first, the marks children do are not conventional; they are attempts or approximations of letters: doodles, lines, or circles that are not drawings. In these first productions, a single mark can be used to represent a whole name or a complete idea, but progressively marks start to appear together (Pontecorvo, 1995). When this happens, adults tend to interfere by "correcting" children's productions, when it would be better to ask for explanations about what they wrote. An exercise from Marco (3;10) can exemplify this. On a white paper, he made a sequence of lines of the same length, and on the upper part of each line, he added a little circle:

Marco Ready!
Therapist What did you draw?
Marco It's not a drawing! It says mom, dad, Mia, Bella, Marco

While he explained this, he pointed to each of the lines with balls that turned out to be the graphic representation of the "name" of each member of his family, an accurate initial attempt to write.

Accessing to Alphabet Information
The characters of the children's proper names take the place of the pseudo-letters they start doing in their first written productions and become the initial repertoire of conventional letters (Ferreiro, 2004). This means that the alphabet information children have is different from the beginning for each child, because the letters they learn first are those in their names. However, the way children interact with the

alphabet is similar, since they learn that there is a specific order to form their names, again a situation that has nothing to do with graphic-oral correspondence, but with graphical representations.

Regarding this, let's go back to the case of Memo. In Spanish, *Memo* is the short name of Guillermo, and in a writing activity, we ask him to form his name using magnetic letters. Once we gave him the materials to do it (the magnetic letters and a cardboard with his proper name marked: Guillermo), he placed every letter on the right place, and when he finished, he read aloud: *Memo*.

Another example of this can be seen with David and Diego, a pair of 4-year-old children, with whom a reading aloud session in their school was performed. The classroom teacher reported that both kids had no problem recognizing their names. However, after finishing a drawing activity, we asked them to write just the first letter of their names. When we approached to see Diego's production, we found his initial letter "D" oriented toward the opposite side. From a prescriptivist approach, this could have been considered as a deviant production, but from a constructivist approach, children's actions are accompanied by a "hidden logic," like we can see in this example:

Therapist Why did you do the letter "D" like this?
Diego I put it that way because me and David are not the same (he said this while pointing at David's name and his own name in the attendance list).

With his comment, we can observe that his production had a distinctive purpose: to differentiate *la "De" de Diego de la "De" de David* (the letter "D" for Diego and the "D" for David). Otherwise, there could have been *dos "Des"* (two "Ds") on the drawings, and distinguishing which one belonged to whom would have been a challenge. From the constructivist approach, the more possibilities of referring to letters, the better the conceptualization of them (Muñoz & Vernon, 2008; Marinho & Alvarado, 2020).

Giving Opportunity to Create Their Own Books

The *Portadores de marcas* or "character's carriers" (Ferreiro, 2006. Personal translation) such as telephone numbers written down on a napkin or saved on a digital agenda, shopping lists, electricity bills, parking tickets, magazines, newspapers, and, of course, books, among plenty others, are examples of how texts are not just an arrangement of alphabetical letters but meaningful semiotic units placed on certain displays, through specific graphical dispositions, and with varied functions.

Having the opportunity to see others using different texts leads children to amplify their panorama of how texts may look and what they can be used for. And so, their possibilities to produce expand. For example, Luis (5;03), who excitedly came to therapy agitating a bunch of stapled papers, said "Look! I made a book!" When he shared his production, we saw drawings of fashionable superheroes and villains, but not a single text. Without asking him, we started to create a story using the sequence of drawings, but Luis got angry and explained:

Luis: It's not a book to tell! It is a book to see! Look, it doesn't have letters!

Therapist: Oh, I see! (she takes a book with large drawings and texts). So, would you say this is a book to tell, or see?
Luis: This is a book to see and tell!

Presenting Challenging Reading and Writing Situations
When children start to establish a relationship between what is written and what is read during the syllabic level, they deal with graphical and sonorous challenges (Vernon, 2004). Based on that, and on an experimental work made by Vernon and Ferreiro (1999), the following interaction with Emilio (3;08) was planned. During the autumn season, we took to the therapy session a drawing of a pumpkin, with the well-known triangle eyes and nose, and under it, there was a text with the words: *La calabaza está lista* (The pumpkin is ready):

Therapist: What is written here?
Emilio: *-ca-* (pointing to *La*), *-la-* (pointing to the whole word *calabaza/pumpkin*), *-ba-* (pointing to *está/is*) and *-za* (pointing to *lista/ready*).

As it can be seen, he made a graphic correspondence in which he matched a syllable of the word *calabaza* to each graphic unit on the text (the other words we included under the drawing). This seems as a first attempt to do syllabic segmentation in a written situation. Using the same illustration, but now with no text under it, we asked Mateo (2;10) to write *La calabaza está lista* (The pumpkin is ready) to which he made two scribble marks:

Therapist: What did you write here?
Mateo: (pointing to one of the scribbles) *la calabaza* (the pumpkin), (pointing to another scribble) *está lista* (is ready)

Mateo distinguishes between what is a drawing and what it is not, but he is also able to graphically represent segments of a canonical word order: subject and predicate, this more than being related to the development of phonological awareness; it seems to be related to syntax (Díaz-Argüero, 2001).

Setting Opportunities to Analyze Morphology
While watching a picture book with Emiliano (5;02), we explored his morphological analysis. The book was about different activities that can be done "when you go to the beach." On every page, Emiliano was invited to name who the people in each picture were and what they were doing; this is what happened:

Therapist: Look, he is a swimmer, and she is a…
Emiliano: *na-da-dora* (Swimmer/feminine) (he answered by making oral segmentation)

What caught our attention was that even when the agentive morpheme *-dora* could be divided into two syllables, Emiliano did not do it that way. This reveals how he manipulates language, specifically words and the ways they can be segmented (Puertas, 2018).

Before writing, children already have notions about the meaning of morphemes. These notions are formed naturally, through a process that starts early on in Spanish, and which is useful for creating words and even pseudo-words (Auza, 2005, 2006, 2008; Auza et al., 1998), which is a natural way of demonstrating that the morphological analysis is active early on. This is an example with Matías, who accidentally broke the tip of a pencil color:
Matías: *¡Oh, necesito un puntero!* (Oh, I need a tip-er[1]) (he stands up to grab a sharpener).

Even when *puntero* is a real word in Spanish, but with a different meaning, in his emission, this word meant what he wanted: something to work the tip of his pencil out, and that was naturally produced. As we can see, what he did is that he took the word *punta* (tip) and modified it by adding the morpheme *-ero* ("-er").

As we have seen in these examples, children with a language disorder can reflect about language, through what from an adult perspective could be considered as an error, but that from their perspective are trials, ways of proving or discarding the functions and uses they interpret and hypothesize around language (Castedo, 2019; Dávalos-Esparza, 2016).

9.6 Morphological Intervention with Three Cases of Children with Language Disorders

Given that DLD is the most frequent condition in children and that a prominent issue on this disorder is morphosyntax, interventions on morphosyntactic skills should be a natural starting point. The effectiveness of interventions on morphosyntactic skills, as well as other skills (phonological or inferential, e.g.), underlines that these interventions are necessary in children with DLD (Rinaldi et al., 2021).

Next, we will describe the three tasks we used with three children with atypical language development to elicit morphological analysis. Afterward, it will be discussed how morphological analysis may play a role in the productive use of morphological segments when reading and writing.

9.6.1 Planning Intervention Tasks

From a constructivist approach, children should be invited to think about an object of knowledge, which is anything that could be problematized and discussed. This means that the planned activities should give children the opportunity to explore different possibilities to interact with the object of knowledge, through either

[1] In Spanish, sharpener is a compound word *saca-puntas*, which literally refers to taking the tip out.

discussions handled by oral interchanges or actions concerning material manipulations.

Task 1: Morphemes-Album
The purpose of this task was to form words through the combination of segments. The activity was specifically designed to work with the agentive morphemes *-dor/-dora* (“-er” masculine/feminine) through six items: (1) *nadador* (swimmer in masculine), (2) *corredora* (runner in feminine), (3) *bailadora* (dancer in feminine), (4) *jugador* (player in masculine), (5) *patinadora* (skater in feminine), and (6) *saltador* (jumper in masculine).

Depending on the working modality (online or presential), we presented the items on a screen or on printed material: an image accompanied by a descriptive text and four segments to form an adjective (a verb in the infinitive form, a root of the same verb, an agentive morpheme in feminine, and an agentive morpheme in masculine) (Fig. 9.1).

The instruction given to the children was:

> “I am working on an album about possible ways to exercise. Would you help me do it? We just need to choose some cards and place them under each drawing”.

We worked with each item at a time. First, we led the children to see the image, and depending on their conceptualization level of writing, we helped them to read, or not, the text above each image (e.g., *A él le gusta nadar* – “he likes to swim”). We used the first item to model:
Therapist: Look! He likes to swim (pointing at the text above the image), and we have these four cards. Which cards should we put under the drawing?

Once children decided on which cards to place under the drawings, we questioned them about why they chose those cards, what would have happened if other cards were chosen, what makes an option better that the other, and so on. Our

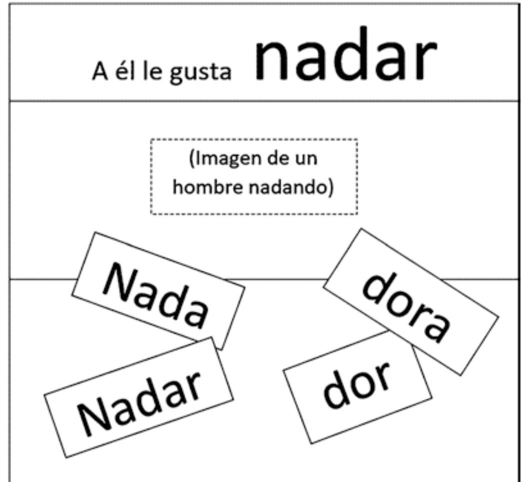

Fig. 9.1 Example of the used material

interventions depended on the responses and solutions of each child, and they had the purpose to elicit justifications and interpretations about morphology.

Task 2: Story Retell

The purpose of this task was to retell a story through images and to write some words about those illustrations. Specifically, we used the story "Mouse paint" by Ellen Stoll Walsh in its Spanish version *Pinta ratones* (2002). From this book, six illustrations were chosen (some in which appear a single mouse and some with two or three mice) to create a worksheet. After reading aloud the book to the children, they were asked to write a word to say something about the mouse or mice that appeared in the six chosen illustrations. We prompted children to write adjectives formed with the adjectival morpheme *-ado* and its plural *-ados*. Like *asustado-asustados* (scared in singular and plural), *pintado-pintados* (painted in singular and plural), or *mojado-mojados* (wet in singular and plural). The given instruction was:

> (After reading the book aloud) "I have these pictures from the book (showing the worksheet with the six illustrations), and now that we know the story, we can write what happened in each picture (pointing at the blank space next to each illustration). Will you help me? This could help us to tell others what the story is about"

Once again, we worked on one item at a time, precisely with one illustration at a time, and depending on the working modality, we presented the book and the chosen illustrations through an online version or on a printed version. We prompted children to write using questions and specific interventions to recover information from the story, such as:

> How were the mice when they saw the cat? They were… Do you remember how they were when they hid in the jars? They were… This mouse got into the purple paint jar, and now it is…

We used the first item as a writing model. The word *asustados* (scared, in plural) was written on a blank space, next to the illustration, and then moved to the next items, to which the children should write something. Once they did it, we asked them for explanations about what they wrote, how they wrote it, and why they write it that way.

In sum, it can be observed that different intervention tasks can consider morphology for giving children the opportunity to interact with pieces of lexical, morphological, and cultural knowledge. Rich information about how children construct the meaning of pieces of words can give us directions to better interventions, taking a starting point from the arguments they do and by the actions they take, concerning material manipulation. As it will be seen next, the same tasks are used with children with different language disorders.

9.6.2 Interventions from the Practice

Child #A_15, 05 Years (Diagnosis: Expressive Language Disorder)
He is an adolescent whose main problem has to do with language production, on an oral and written basis. At the beginning, the purpose of the language therapy was to improve his oral production through interventions concerning orality (in the grammatical and phonological level). During the pandemic, the communication handled with him was through instant messages. The first interactions were with his mother, but once he was given his own cell phone, the communication was with him. This situation made us realize that writing was hard for him; he omitted characters, shortened long words, and didn't include spaces between words (without mentioning orthographic difficulties), and because of this, he preferred to send voice messages arguing "writing is not my thing," as he said. With this panorama, we decided to include writing as another purpose of intervention.

Through activities designed around authentic reading and writing situations (like writing to search videos on the web, reading some games descriptions, or following the lyrics of a song), we noticed that he paid attention to specific suffixes, such as *-ción* (like in communication – *comunicación*) or *-endo* (like in eating – *comiendo*), which he didn't need to copy, because like he said "that is easy to write because it is always the same." When we noticed this, we started to explore more on this child's relationship to morphology.

Task 1: Morphemes-Album
Since we work with this child online, the idea of manipulating the cards to form words was transformed into an activity of forming words through copying. But one of the strategies this child uses the most when writing is precisely "to copy" form writing models, so the task worked well. But besides the four options given (two adjectival suffixes, a verb in infinitive, and a root verb), on the first two items, runner and swimmer (*corredora* and *nadador*), he also considered the text above the image of the woman running and the man swimming, and through copying, he wrote the infinitive form of the verb run (*correr*) and then added the correct adjectival suffix "-er" (*-dora*). So, the result of his production was *correrdora* (which would be almost like "runner"). He followed the same procedure with the second item, swimmer (*nadador*), and wrote *nadardor* (which would be like "swimmer"). But once he completed these two items, we started questioning him about his production:

Therapist:	So? What word did you form?
Child #A:	I think this, *-dora*, is the clue for the girl. "She runs"
Therapist:	Is that what you formed?
Child #A:	It's like she runs but in one word.

As we can see, he relates *-dora* to the feminine morpheme, and he sees this as a way to synthesize a whole sentence into a word. He kept this explanation through the task, and when we questioned him about the verbs written with a final */r/* (the "r" from the infinitive form in Spanish), he also alluded to that possibility of synthesizing:

Therapist: And I see you never used these options (pointing at the root verbs: *corre* (runs), *nada* (swims), *baila* (dances), *juega* (plays), *patina*, (skates) *salta* (jumps). Can you tell me why?
Child #A: Because here it is not written like that (pointing at the text above the images. Ex. *A ella le gusta correr*/She likes to run).
Therapist: And if you used these, what could happen? (pointing at the root verbs again) Is it possible?
Child #A: It's fine too. It would be like "a woman who runs" (*una mujer que corre*).

In neither of these explanations, he considered the oral correspondence between the written form and its oral emission. His analysis went deeper into linguistic features related to how to represent ideas in a different way.

Task 2: Story Retell

On this second task, he kept his explanation on the synthesis, to write things shorter, saying that:
Child #A: The words have two parts. The one about what happens in the picture (pointing at *pintado*), and the one with the clue about how many mice are there (pointing at the "s" in *pintados*)

Again, he recognized that sometimes verbs are not supposed to be written in their infinitive form, linking his reasoning to the idea of writing things shorter.

Child #A: But this (*pintados*/painted) goes best without the *erre* (referring to the name of the letter used to represent the infinite form of verbs, in this case *pintar* or to paint).
Therapist: I don't see an *erre*.
Child #A: I didn't put it to make it shorter (pointing at *pintados*/painted)
Therapist: What do you mean with "make it shorter"?
Child #A: Like *estaban llenos de pintura* (they were full of painting) but in one word (again pointing at *pintados*/painted)
Therapist: But what *erre* were you referring to?
Child #A: the one in here (pointing at *pintar* -to paint). I didn't write to make it shorter.

For this child, it is also common that when he doesn't remember a word, he makes a description of it. This strategy, which he has developed over time, helped him justify his writings on this task and even led him to find the root form of the verbs which he was using to write.

Child #B_8, 04 Years (Diagnosis: Speech Sound Disorder (SSD))

He is a child who has a speech sound disorder (articulation) noticeable on his spontaneous productions. Because of the pandemic, he has attended school online, and his therapy sessions have also been online. Through some of the activities we planned for intervention, such as simulating phone calls to order for food, writing the customer's information to make the deliveries, or preparing emails to complain about a service, we noticed that reading and writing were hard for him. Sometimes,

he even showed indisposition to write, preferring to dictate, record audios, or just talk. Also, it can be said that orthography was something he worried about, because he constantly asked for the therapist's approval when writing some words: *¿Así se escribe?* (Is it well written?).

Task 1: Morphemes-Album

His indisposition to write made him answer this task in a different way. Whenever we presented an item with its options to solve (like the one on "he likes to swim" with the four options: two adjectival suffixes, a verb in infinitive form, and a root verb), from his own computer, he circled his solution on the screen and read it aloud. Just then, we started to question him.

Therapist: How did you know which ones to choose?
Child #B: This one doesn't go (pointing at the card with the infinitive form *nadar* "to swim").
Therapist: Why not?
Child #B: Because you can't put more information on it, and these (pointing at *-dora* and *-dor* "-er" in English) have to go only with a card that is incomplete. That one (pointing at *nada*, the root of "to swim" in Spanish).

As we can see, the notion of "completeness" is present in this child justification. This shows how his notions about verbs helped him to decide which segments to choose.

Task 2: Story Retell

On this task, he did write using the command to insert text on the shared screen. He wrote an answer to each picture from the mice story, and each one of them had a morpheme; it is to say they were all derivational words. When we asked him about the similarities among the words he wrote, he made this interesting analysis:

Therapist: I see all those words have things in common. Do you see it too?
Child #B: Well, they all end with *-dos*. But here (pointing at *azulados* - blue and *morados* - purple), it is kind of different.
Therapist: Different how?
Child #B: I think it is a different *-dos*, because if you take it off (covering *-dos* in *azulados*) it says a wrong word, *azula* does not exist, and (covering *dos* in *morados*) *mora* exists, but there are no *moras* (berries) in the story. It must be the color *morado* (purple).

As it can be observed, this child is noticing the difference between a *-dos* added to a verb and a *-dos* added to an adjective, and he is realizing that its presence or absence in writing might have meaningful implications, literally speaking.

Child #C_5, 06 Years (Diagnosis: Developmental Language Disorder (DLD), Previously Named SLI)

He is a child whom we first met when he was 2;10. His parents identified that he wasn't speaking as other children of his age, and they came to us to corroborate the state of his son's language development. After an initial assessment, which

confirmed a language delay, we started working on language intervention. A second assessment was made later, and the diagnosis was confirmed as DLD. Since then, explicit grammatical and phonological intervention has been the focus of work. It is important to notice that one of the main issues of this child has to do with morphology (derivational and inflectional). He is now 5;06, and he has recently started his relationship with reading and writing; he can identify his name and copy it. Also, he knows the names of some letters, especially those initial letters on the names of his friends and family. He enjoys when others read for and with him, and, considering certain displays, prints, and supports, he makes good predictions on what might be read on a text.

Task 1: Morphemes-Album
In contrast to Child #A and Child #B, with this child, we didn't work online, but at his house. This allowed the manipulation of the prepared materials. But this task was difficult for him. Since he is at the syllabic level of writing, we helped him out to read the text above the images and in the cards, although he got tired and just completed the first two items. From this interaction, what called our attention was the following:

Therapist: If she likes to run, she is a...
Child #C: *Corre mucho* (- runs a lot)
Therapist: But we don't have that in the cards, look (reads again the segments in the cards). So, which should we take to say something about her?
Child #C: (he grabs the cards and sees them) This (pointing at *correr*, "run")!
Therapist: Why this one?
Child #C: It has a lot (pointing, one by one, at the letters in *correr*).
Therapist: And why do you think this has a lot (*¿ ... que esta tiene muchas?*)
Child #C: Because she likes it a lot (*a ella le gusta mucho*).
Therapist: She likes running a lot. Is that what you mean?
Child #C: Yes.

Even when his emissions were reduced and he was not analyzing morphology, through his justification, he let us see that his decision was based on quantity, a notion that he recovered on the next task when talking about plurals.

Task 2: Story Retell
In each picture, he identified the condition of the mice, but when mentioning them, he didn't produce the morpheme for the plurals, for example, saying *asustado* instead of *asustados* (scared) or *pintado* instead of *pintados* (painted) when the images included two or three mice, this due to a phonological difficulty with the phoneme /s/. But, since the focus of the task was to write, we put him in a contrastive graphic situation by going back to the book, precisely to a page where there was only one painted mouse:

Therapist: Here, how many mice are painted?
Child #C: One!
Therapist: One mouse is…? (waiting for him to answer)

Child #C: Painted (*pintado*)!
Therapist: (writes *pintado* on the blank space next to the illustration) And do you think we could do something with this word to say that here (in the illustration with three painted mice) there are three painted mice?
Child #C: Yes! (he grabs the pencil and makes a number three next to the word *pintado*)
Therapist: Good idea, and what does it say now?
Child #C: Three painted (*tre- pintado.* Not pronouncing the /s/ in *tres* (three) and in *pintados* (the plural for painted), this due to his phonological difficulty).

This analysis is interesting because his speech sound disorder did not allow him to mark the plural on his oral productions, but he got a way to represent the plural on a written form. Even when his solution was not conventional, his notions about quantity let him find that there is a way to graphically distinguish plurals from singulars. If we wouldn't have given him the chance to represent plurals in his own way and instead showed him that there is a mark to do it (the letter "s"), we could've skipped an interesting moment of analysis on plurals.

In sum, it is possible to observe how children with language difficulties can develop morphological skills around tasks that are similarly used in typical peers. In many cases, the processes are slower, but the skill can be built with the help of an interlocutor who gives them more opportunities to interact in discussions and manipulation of pieces of information.

9.7 Discussion

This chapter has highlighted the importance of eliciting morphological analysis through reading and writing activities with the purpose of identifying the linguistic reflections that children with language disorders do.

Studies on early literacy and morphology are more frequent in languages with opaque orthography, such as English. These studies are predominantly based on a cognitive perspective, through experimental designs in which it is sought to correlate the development of morphological awareness with abilities for decoding, spelling, vocabulary knowledge, and reading comprehension (Apel & Henbest, 2016; Deacon & Bryant, 2005; Carlisle, 2010; Collins et al., 2020; Nagy et al., 2014). But this has also been studied in languages with rich morphology, such as Greek (Diamanti et al., 2014), Portuguese (Da Mota, 2008), Hebrew (Ravid & Schiff, 2006), and Spanish (Velázquez, 2017; Rodríguez Cuevas, 2018; Puertas, 2018). In the latter, we have referred to investigations made from a constructivist perspective, where the attention is set on how children's interpretations around morphology gradually change. Despite the theoretical, methodological, and analytical perspective, some of the tasks used in previous research share particularities concerning the ways to elicit children's interaction with morphology, basically, through morphological addition or morphological decomposition.

The results from the cognitive-based studies, made in transparent languages (Da Mota, 2008; Diamanti et al., 2014; Ravid & Schiff, 2006), and the correlations found in English research give a panorama about the difficulties observed in children who are asked to work on adding, finding, or matching morphemes to root words. On the other hand, some constructivist-based studies conducted in Spanish (Velázquez, 2017; Rodríguez Cuevas, 2018; Puertas, 2018) have contributed to the understanding of children's notions and several uses morphology have on acquisition. In a general sense, cognitive-based research tends to point out the weakness and strengths children may have around morphology, while constructivist-based studies describe the mental processes children follow when analyzing morphemes.

The emphasized distinction between the cognitive and the constructivist way to approach written language acquisition reflects our interest in moving from "what" children are able to do around morphology to "how" do children use the information they have when interacting with morphological units. That is, regardless of the language disorder, we have left aside the correct/incorrect dichotomy, and we have centered on the analysis of the justifications, responses, and actions of children around morphology.

Through this perspective, we could recognize:

1. How children express morphological use, like when Child #A said "It's like she runs but in one word," relating morphemes to the possibility of saying things shorter
2. How children describe the semantics on words, like Child #B who reflected onto two kinds of -*dos (two)* in adjectives in which, if the morpheme is removed, the result could be a nonexistent word like *azula* or a word out of context like *mora* (berry)
3. How children bring what they know about language, like the example from Child #C, who found a way to graphically represent plurals considering his notions on quantity, or Child #A and Child #B who used what they knew about verbs to decide whether to write using the infinitive form or not

The three cases showed that morphological analysis is possible and that it is elicitable through activities where children can manipulate written language and explore a wider variety of solutions. Differences can be found depending on the age of children, but also on their language disorder. Even in the case of the youngest boy, Child #C with DLD, we found justifications that showed incipient morphological analysis through graphical representations. With examples from these interventions, the chapter has highlighted how morphology, especially in languages which are morphologically rich and transparent, may promote reflections for oral and written language.

Written language is an instrument that makes language analysis possible (Ferreiro, 2002; Zamudio, 2004). Its own material and systemic characteristics make written language an observable, manipulable resource which understanding, and use, requires deep reflection that can be prompted when the planned activities contemplate more than one answer, when there is openness to explore the reasons that led the children to respond in one way or another, or when they are questioned

on why other options might be incorrect, not suitable, or dismissed. This view might amplify the range of activities to work around reading, writing, and morphology, and it might also set the intervener (the language therapist or the teacher) in a position where instead of focusing on the child's difficulties, the attention could be paid on the oral and written responses and the observance of how the child might work around them, and with this, we refer to ask differently, to go from "What does it say?" and "What is it written?" questions that reduce the range of answers to correct or incorrect, to move into the direction of "What do you think it says?", "What makes you think that?", or "Can you explain me what you are saying?". These kind of questions increase the range of answers, give room to oral discussions, and open the space to act around the writing system, either interpreting writings or producing them.

Then, the implementation of activities such as the tasks that were suggested or those worked with the three children described in this chapter might (a) set up what children can do as a starting point for intervention; (b) benefit children with language disorders in the acquisition of the writing system, based on the analysis of segments with semantic and syntactic implications, such as morphemes; and (c) allow children, especially those with morphosyntactic difficulties, to produce orally and in a written basis morphemes in real situations, where comparisons and contrasts are naturally encouraged through reading and writing.

9.8 Final Remarks

Having worked with children with different speech-language difficulties has allowed us to see that children might develop the ability to deepen in morphological analysis through planned tasks with reading and writing purposes. However, because we have only described one case per diagnosis, it is not possible to know if other children with similar diagnoses would also be able to do similar analyses. To corroborate this or extend it, conducting a study with more children per diagnosis would be relevant.

Another limitation of our exploration has to do with the number of morphemes explored. Since, as we have said, Spanish is a morphologically rich language, it would be incorrect to generalize on the relationship and the analysis that children with language disorders establish with the morphemes of their language, just through data that corresponds to only a few suffixes. Therefore, to expand this information, it would be necessary to explore what happens with other morphemes in similar contextual situations.

One last limitation has to do with the homogenization of the conditions under which we carried out the two tasks with the three children. In each case, the tasks were carried out differently, depending on the working modality (online or face to face), the procedures to answer (through copying, selecting, or manipulating cards), or the device to write (computer keyboard, pen tablet, or a regular pencil). This was due to the way in which the health situation for Covid-19 allowed us to work with

each child. However, despite the differences in work, it appears that children benefit from morphological activities to construct oral and written language. We consider that broadening the findings we had under each working condition, other explorations could be carried out with children learning rich languages in morphology.

References

Acosta, V., Ramírez, G., Del Valle, N., & de Castro, L. (2016). Intervention in reading processes in pupils with Specific Language Impairment (SLI). *Psicothema, 28*(1), 40–46. https://doi.org/10.7334/psicothema2015.144

Aguilar-Mediavilla, E., Buil-Legaz, L., Perez-Castello, J. A., Rigo-Carratala, E., & Adrover-Roig, D. (2014). Early preschool processing abilities predict subsequent reading outcomes in bilingual Spanish–Catalan children with Specific Language Impairment (SLI). *Journal of Communication Disorders, 50*, 19–35. https://doi.org/10.1016/j.jcomdis.2014.03.003

Anglin, J. M. (1993). Vocabulary development: A morphological analysis. *Monographs of the Society for Research in Child Development, 58*, 1–166. https://doi.org/10.2307/1166112

Apel, K. (2014). A comprehensive definition of morphological awareness. Implications for assessment. *Topics in Language Disorders, 34*(3), 197–209. https://doi.org/10.1097/TLD.0000000000000019

Apel, K., & Henbest, V. S. (2016). Affix meaning knowledge in first through third grade students. *Language, Speech, and Hearing Services in Schools, 47*(2), 148–156. https://doi.org/10.1044/2016_LSHSS-15-0050

Apel, K., & Henbest, V. S. (2020). Morphological awareness skills of second-and third-grade students with and without speech sound disorders. *Language, Speech, and Hearing Services in Schools, 51*(3), 603–616. https://doi.org/10.1044/2019_LSHSS-19-00045

Apel, K., & Lawrence, J. (2011). Contributions of morphological awareness skills to word-level reading and spelling in first-grade children with and without speech sound disorder. *Journal of Speech Language and Hearing Research, 54*(5), 1312–1327. https://doi.org/10.1044/1092-4388(2011/10-0115)

Auza, A. (2005). Adquisición morfológica nominal en el niño de 3:7 a 4:0 años: ¿Cuál estrategia se emplea en el aprendizaje de una clase léxica? [*Nominal morphological acquisition in the child from 3:7 to 4:0 years: What strategy is used in learning a lexical class?] Lingüística Mexicana, II*(1), 105–114.

Auza, A. (2006). La transparencia morfológica y conceptual en la adquisición de términos centrales y periféricos. [Morphological and conceptual transparency in the acquisition of central and peripheral terms] *Lenguaje, 34*(1), 71–96. https://doi.org/10.25100/lenguaje.v34i0.4842

Auza, A. (2008). Las sobregeneralizaciones morfológicas derivativas y su relación con el crecimiento del vocabulario infantil. [Derivative morphological overgeneralizations and their relationship with the growth of children's vocabulary] *Lenguas en Contexto, 5*, 32–41.

Auza, A., Jackson-Maldonado, D., & Maldonado, R. (1998). Estrategias de productividad morfológica en el niño de tres a tres años y medio: el caso de los nombres de ocupaciones. [Strategies of morphological productivity in the child from three to three and a half years: the case of the names of occupations*] Función 7–8*, 35–53. http://148.202.18.157/sitios/publicacionesite/pperiod/funcion/pdf/17-18/auza.pdf

Baumann, J. F., Edwards, E. C., Font, G., Tereshinski, C. A., Kame'enui, E. J., & Olejnik, S. F. (2002). Teaching morphemic and contextual analysis to fifth-grade students. *Reading Research Quarterly, 37*(3), 360–360. https://doi.org/10.1598/RRQ.37.2.3

Bedore, L. M., & Leonard, L. B. (2001). Grammatical morphology deficits in Spanish-speaking children with specific language impairment. https://doi.org/10.1044/1092-4388(2001/072)

Bishop, D. V., & Snowling, M. J. (2004). Developmental dyslexia and specific language impairment: Same or different? *Psychological Bulletin, 130*(6), 858–886. https://psycnet.apa.org/doi/10.1037/0033-2909.130.6.858

Bishop, D. V., Snowling, M. J., Thompson, P. A., Greenhalgh, T., Adams, C., House, A., et al. (2017). Phase 2 of CATALISE: A multinational and multidisciplinary Delphi consensus study of problems with language development: Terminology. *Journal of Child Psychology and Psychiatry, 58*(10), 1068–1080. https://doi.org/10.1111/jcpp.12721

Bornstein, M. H., Hahn, C.-S., & Putnick, D. L. (2016). Long term stability of core language skill in children with contrasting language skills. *Developmental Psychology, 52*, 704–716. https://doi.org/10.1037/dev0000111

Braveman, P. A., Egerter, S. A., & Mockenhaupt, R. E. (2011). Broadening the focus: The need to address the social determinants of health. *American Journal of Preventive Medicine, 40*(1), S4–S18. https://doi.org/10.1016/j.amepre.2010.10.002

Buil-Legaz, L., Aguilar-Mediavilla, E., & Rodríguez-Ferreiro, J. (2015). Reading skills in young adolescents with a history of Specific Language Impairment: The role of early semantic capacity. *Journal of Communication Disorders, 58*, 14–20. https://doi.org/10.1016/j.jcomdis.2015.08.001

Carlisle, J. F. (1987). The use of morphological knowledge in spelling derived forms by learning-disabled and normal students. *Annals of Dyslexia, 37*(1), 90–108. https://doi.org/10.1007/bf02648061

Carlisle, J. F. (2000). Awareness of the structure and meaning of morphologically complex words: Impact on reading. *Reading and Writing. An Interdisciplinary Journal, 12*, 169–190. https://doi.org/10.1023/A:1008131926604

Carlisle, J. F. (2003). Morphology matters in learning to read: A commentary. *Reading Psychology, 24*, 291–322. https://doi.org/10.1080/02702710390227369

Carlisle, J. F. (2010). Effects of instruction in morphological awareness on literacy achievement: An integrative review. *Reading Research Quarterly, 45*(4), 464–487. https://doi.org/10.1598/RRQ.45.4.5

Castedo, M. L. (2010). Voces sobre la alfabetización inicial en América Latina, 1980–2010. [Voices on initial literacy in Latin America, 1980–2010] *Lectura y Vida, 31*(4), 35–68.

Castedo, M. L. (2019). Alfabetización inicial: Teorías, investigaciones y prácticas de enseñanza. [Early Literacy: Theories, Research, and Teaching Practices] In C. Bazerman et al. (Eds.), *Conocer la escritura: Investigación más allá de las fronteras* [*Getting to know writing: Research beyond borders*] pp. 47–70). Editorial Pontificia Universidad Javeriana.

Catts, H. W., Hogan, T. P., & Adlof, S. M. (2005). Developmental changes in reading and reading disabilities. In H. W. Catts & A. G. Kamhi (Eds.), *The connections between language and reading disabilities* (pp. 25–40). Lawrence Erlbaum Associates.

Collins, G., Wolter, J. A., Meaux, A. B., & Alonzo, C. N. (2020). Integrating morphological awareness in a multilinguistic structured literacy approach to improve literacy in adolescents with reading and/or language disorders. *Language, Speech, and Hearing Services in Schools, 51*(3), 531–543. https://doi.org/10.1044/2020_LSHSS-19-00053

Coloma, C. J., Pavez, M. M., Maggiolo, M., & Peñaloza, C. (2010). Desarrollo fonológico en niños de 3 y 4 años según la fonología natural: Incidencia de la edad y del género. [Phonological development in 3 and 4 year old children according to natural phonology: Incidence of age and gender] *Revista signos, 43*(72), 31–48. https://doi.org/10.4067/s0718-09342010000100002

Coloma, C. J., Caroca, V., Kurte, A., Melipil, B., Ortiz, G., & Quezada, C. (2018). Decodificación y comprensión lectora en escolares con Trastorno Específico del Lenguaje. [Decoding and reading comprehension in schoolchildren with Specific Language Impairment] *Revista Chilena de Fonoaudiología, 17*, 1–14. https://doi.org/10.5354/0719-4692.2018.51614

Coloma, C. J., De Barbieri, Z., Quezada, C., Bravo, C., Chaf, G., & Araya, C. (2020). The impact of vocabulary, grammar and decoding on reading comprehension among children with SLI: A longitudinal study. *Journal of Communication Disorders, 86*, 1–13. https://doi.org/10.1016/j.jcomdis.2020.106002

Conti-Ramsden, G., & Windfuhr, K. (2002). Productivity with word order and morphology: A comparative look at children with SLI and children with normal language abilities. *International Journal of Language & Communication Disorders, 37*(1), 17–30. https://doi.org/10.1080/13682820110089380

Da Mota, M. (2008). Algumas considerações a respeito do que as crianças sabem sobre a morfologia derivacional [Some considerations about what children know about derivational morphology]. *Interação em Psicologia, 12*(1), 115–123. https://doi.org/10.5380/psi.v12i1.7452

Dávalos-Esparza, D. A. (2016). *La influencia de los marcadores textuales de modalidad en la evolución de los usos y explicaciones de la puntuación en niños de primaria [The influence of modality textual markers on the evolution of punctuation uses and explanations in primary school children]* (Doctoral dissertation). Instituto Politécnico Nacional.

Dávalos-Esparza, D. A. (2017). Children's reflections on the uses and functions of punctuation: The role of modality markers/Reflexiones infantiles sobre los usos y funciones de la puntuación: el papel de los marcadores de modalidad. *Infancia y Aprendizaje, 40*(3), 429–466. https://doi.org/10.1080/02103702.2017.1341100

De Barbieri, Z., & Coloma, C. J. (2004). La conciencia fonológica en niños con trastorno específico de lenguaje. [Phonological awareness in children with specific language disorder] *Revista de Logopedia, Foniatría y Audiología (Ed. impr.)*, 156–163. https://doi.org/10.1016/s0214-4603(04)75798-8

Deacon, H., & Bryant, P. (2005). The strength of children's knowledge of the role of roots in the spelling of derived words. *Journal of Child Language, 32*(2), 375–389. https://doi.org/10.1017/s0305000904006816

Di Tullio, Á. (2005). *Manual de gramática del español*. [Spanish grammar manual] La isla de la luna.

Diamanti, V., Goulandris, N., Stuart, M., & Campbell, R. (2014). Spelling derivational and inflectional suffixes by Greek-speaking children with and without dyslexia. *Reading and Writing, 27*, 337–358. https://psycnet.apa.org/doi/10.1007/s11145-013-9447-2

Díaz-Argüero, C. (1996). Ideas infantiles acerca de la ortografía del español. [Children's ideas about the spelling of Spanish] *Revista Mexicana de Investigación Educativa, 1*(1).

Díaz-Argüero, C. (2001). Las variaciones gráficas y la adquisición del conocimiento ortográfico. [Graphic variations and the acquisition of orthographic knowledge] *Textos. Didáctica de la Lengua y la Literatura, 28*(7), 89–99.

Durkin, K., Mok, P. L., & Conti-Ramsden, G. (2015). Core subjects at the end of primary school: Identifying and explaining relative strengths of children with specific language impairment (SLI). *International Journal of Language & Communication Disorders, 50*(2), 226–240. https://doi.org/10.1111/1460-6984.12137

Ferreiro, E. (1983). Procesos de adquisición de la lengua escrita dentro del contexto escolar. [Written language acquisition processes within the school context] *Lectura y vida, 4*(2), 53–64.

Ferreiro, E. (1991). *Desarrollo de la alfabetización: Psicogénesis*. [Literacy Development: Psychogenesis] Aique.

Ferreiro, E. (2002). Literacy Development: Psychogenesis [Literacy Development: Psychogenesis] *Relaciones de (in) dependencia entre oralidad y escritura, 21*, 151–171.

Ferreiro, E. (2004). Acerca de la necesaria coordinación entre semejanzas y diferencias. In *Piaget-Vygotsky: Contribuciones para replantear el debate* [About the necessary coordination between similarities and differences]. In Piaget-Vygotsky: Contributions to reframe the debate (pp. 119–139). Paidós.

Ferreiro, E. (2006). La escritura antes de la letra. [The writing before the letter] *CPU-e, Revista de Investigación Educativa, 3*, 1–52.

Ferreiro, E. (2018). Acerca de las dificultades para aceptar que los niños piensan sobre lo escrito. [About the difficulties to accept that children think about what is written] *Bellaterra Journal of Teaching & Learning Language & Literature, 11*(2), 13–34. https://doi.org/10.5565/rev/jtl3.769

Ferreiro, E., & Teberosky, A. (1979). *Los sistemas de escritura en el desarrollo del niño*. [Writing systems in child development] Siglo XXI.
Ferreiro, E., & Teberosky, A. (1981). La comprensión del sistema de escritura: Construcciones originales del niño e información específica de los adultos. [Understanding the writing system: Original child constructions and adult specific information] *Lectura y vida, 2*(1), 6–14.
Figueiras, G. (2017). In*cidencia del Trastorno Específico del Lenguaje en la adquisición de la lectoescritura y la comprensión lectora* (Tesis de licenciatura). [Specific Language Disorder in the acquisition of literacy and reading comprehension] (Bachelor Thesis) Universidad de la República de Uruguay, Escuela Universitaria de Tecnología Médica.
Goodwin, A. P., & Ahn, S. (2010). A meta-analysis of morphological interventions: Effects on literacy achievement of children with literacy difficulties. *Annals of Dyslexia, 60*(2), 183–208. https://doi.org/10.1007/s11881-010-0041-x
Goodwin, A. P., & Ahn, S. (2013). A meta-analysis of morphological interventions in English: Effects on literacy outcomes for school-age children. *Scientific Studies of Reading, 17*(4), 257–285. https://doi.org/10.1080/10888438.2012.689791
Gutiérrez Fresneda, R., & Díez Mediavilla, A. E. (2018). Conciencia fonológica y desarrollo evolutivo de la escritura en las primeras edades. [Phonological awareness and evolutionary development of writing in the early ages] *Educación XX1: Revista de la Facultad de Educación*. https://doi.org/10.5944/educxx1.20212
Hjetland, H. N., Lervåg, A., Lyster, S. A. H., Hagtvet, B. E., Hulme, C., & Melby-Lervåg, M. (2019). Pathways to reading comprehension: A longitudinal study from 4 to 9 years of age. *Journal of Educational Psychology, 111*(5), 751. https://doi.org/10.1037/edu0000321
Hulme, C., & Snowling, M. J. (2016). Reading disorders and dyslexia. *Current Opinion in Pediatrics, 28*(6), 731. https://doi.org/10.1097/mop.0000000000000411
Jackson-Maldonado, D., & Maldonado, R. (2001). Determinaciones semánticas de la flexión verbal en la adquisición temprana del español. [Semantic determinations of verbal inflection in the early acquisition of Spanish] In C. Rojas-Nieto & L. De León Pasquel (Eds.), *La adquisición de la lengua materna, Español, lenguas mayas y euskera [The acquisition of the mother tongue, Spanish, Mayan languages and Basque*] pp. 165–200). Universidad Nacional Autónoma de México.
Jackson-Maldonado, D., & Maldonado, R. (2017). Grammaticality differences between Spanish-speaking children with Specific/Primary Language Impairment (SLI/PLI) and their typically developing peers. *International Journal of Language and Communication Disorders, 52*(6), 750–765. https://doi.org/10.1111/1460-6984.12312
Jiménez Cuéllar, J. A. (2018). *Uso de la tilde y otros recursos para diferenciar secuencias gráficas idénticas en niños de primaria* [*Use of the accent mark and other resources to differentiate identical graphic sequences in primary school children*] (Master's thesis). Tesis (MC)--Centro de Investigación y de Estudios Avanzados del IPN Departamento de Investigaciones Educativas.
Jordán, N., Cuetos, F., & Suárez-Coalla, P. (2019). Prosody in the reading of children with specific language impairment/La prosodia en la lectura de niños con trastorno específico del lenguaje. *Infancia y Aprendizaje, 42*(1), 87–127. https://doi.org/10.1080/02103702.2018.1550161
Kilpatrick, D. (2015). *Essentials of assessing, preventing, and overcoming reading difficulties (Essentials of psychological assessment)*. John Wiley and Sons.
Kirk, C., & Gillon, G. T. (2009). Integrated morphological awareness intervention as a tool for improving literacy. *Language, Speech, and Hearing Services in Schools, 40*(3), 341–351. https://doi.org/10.1044/0161-1461(2008/08-0009)
Kuo, L. J., & Anderson, R. C. (2006). Morphological awareness and learning to read: A cross-language perspective. *Educational Psychologist, 41*(3), 161–180. https://doi.org/10.1207/s15326985ep4103_3
Lara-Díaz, M. F., Mateus-Moreno, A. M., & Beltrán-Rojas, J. C. (2021). Reading and oral language skills in children with developmental language disorder: Influence of socioeconomic, educational, and family variables. *Frontiers in Psychology, 12*, 1–9. https://doi.org/10.3389/fpsyg.2021.718988

Leonard, L. (2014). *Children with specific language impairment* (2nd ed.). MIT Press. https://doi.org/10.7551/mitpress/9152.001.0001

Leonard, L., & Deevy, P. (2004). Lexical deficits in specific language impairment. In L. Verhoeven & H. van Balkom (Eds.), *Classification of developmental language disorders. Theoretical issues and clinical implications* (pp. 209–233). Lawrence Erlbaum Associates.

Lervåg, A., Hulme, C., & Melby-Lervåg, M. (2018). Unpicking the developmental relationship between oral language skills and reading comprehension: It's simple, but complex. *Child Development, 89*(5), 1821–1838. https://doi.org/10.1111/cdev.12861

Marinho, G. R., & Alvarado, M. (2020). La utilidad de conocer el nombre de las letras para adquirir el sistema de escritura. [The utility of knowing the name of the letters to acquire the writing system] *Plurais Revista Multidisciplinar, 5*(3), 18–45. https://doi.org/10.29378/plurais.2447-9373.2020.v5.n3.10196

McLeod, A. N., & Apel, K. (2015). Morphological awareness intervention: Study of a child with a history of speech and language impairment. *Communication Disorders Quarterly, 36*(4), 208–218. https://doi.org/10.1177/1525740114560371

Molinari, M. C. (2015). El constructivismo en el aula: Intervención docente en situaciones didácticas donde los niños aprenden a leer por sí mismos. [Constructivism in the classroom: Teacher intervention in didactic situations where children learn to read by themselves] *Quehacer educativo, 129*, 31–40.

Montgomery, J. W., & Windsor, J. (2007). Examining the language performances of children with and without specific language impairment: Contributions of phonological short-term memory and speed of processing. *Journal of Speech, Language, and Hearing Research, 50*(3), 778–797. https://doi.org/10.1044/1092-4388(2007/054)

Morgan, G. P., Restrepo, M. A., & Auza, A. (2013). Comparison of Spanish morphology in monolingual and Spanish–English bilingual children with and without language impairment. *Bilingualism: Language and Cognition, 16*(3), 578–596. https://doi.org/10.1017/s1366728912000697

Muñoz, S. C., & Vernon, S. A. (2008). Denominación y uso de consonantes en el proceso inicial de alfabetización. [Naming and use of consonants in the initial literacy process] *Lectura y Vida, 29*(2).

Nagy, W. E., Carlisle, J. F., & Goodwin, A. P. (2014). Morphological knowledge and literacy acquisition. *Journal of Learning Disabilities, 47*(1), 3–12. https://doi.org/10.1177/0022219413509967

Nation, K. (2019). Children's reading difficulties, language, and reflections on the simple view of reading. *Australian Journal of Learning Difficulties, 24*(1), 47–73. https://doi.org/10.1080/19404158.2019.1609272

Nation, K., & Snowling, M. (2004). Beyond phonological skills: Broader language skills contribute to the development of reading. *Journal of Research in Reading, 27*, 342–356. https://doi.org/10.1111/j.1467-9817.2004.00238.x

Norbury, C. F., Vamvakas, G., Gooch, D., Baird, G., Charman, T., Simonoff, E., & Pickles, A. (2017). Language growth in children with heterogeneous language disorders: A population study. *Journal of Child Psychology and Psychiatry, and Allied Disciplines, 58*(10), 1092–1105. https://doi.org/10.1111/jcpp.12793

Pavelko, S. L., Lieberman, R. J., Schwartz, J., & Hahs-Vaughn, D. (2018). The contributions of phonological awareness, alphabet knowledge, and letter writing to name writing in children with specific language impairment and typically developing children. *American Journal of Speech-Language Pathology, 27*(1), 166–180. https://doi.org/10.1044/2017_ajslp-17-0084

Pearce, W., James, D., & Mc Cormack, P. (2010). A comparison of oral narratives children with specific language and non-specific language impairment. *Clinical Linguistics & Phonetics, 24*, 622–646. https://doi.org/10.3109/02699201003736403

Pena, J. (1999). Partes de la morfología. Las unidades del análisis morfológico. [Parts of the morphology]. The units of morphological analysisIn I. Bosque & V. Demonte (Eds.), *Gramática descriptiva de la lengua española* [*Descriptive Grammar of the Spanish language*] (pp. 4305–4366). Espasa Calpe, III.

Pennington, B. F., & Bishop, D. V. (2009). Relations among speech, language, and reading disorders. *Annual Review of Psychology, 60*, 283–306. https://doi.org/10.3109/02699201003736403

Pérez Pereira, M., & Singer, D. (1984). Adquisición de morfemas del español. [Acquisition of Spanish morphemes] *Infancia y Aprendizaje, 27*(28), 205–221. https://doi.org/10.1080/02103702.1984.10822051

Pontecorvo, C. (1995). Iconicity in children's first written texts. *Amsterdam Studies in the Theory and History of Linguistic Science series, 4*, 277–277. https://doi.org/10.1075/cilt.110.19pon

Pratt, A., Grinstead, J., & McCauley, R. (2020). Emergent literacy in Spanish-speaking children with developmental language disorder: Preliminary findings of delays in comprehension- and code-related skills. *Journal of Speech, Language, and Hearing Research, 63*(12), 4193–4207. https://doi.org/10.1044/2020_JSLHR-19-00239

Puertas, R. R. (2018). *Reflexiones metalingüísticas de niños de primaria sobre algunos morfemas derivativos del español* [*Metalinguistic reflections of primary school children on some derivative morphemes of Spanish*] (Doctoral dissertation). Universidad Nacional de La Plata.

Puertas, R. (2020). Hacia un enfoque procesal de la toma de conciencia de morfemas derivativos del español en niños de primaria. [Towards a procedural approach to the awareness of Spanish derivative morphemes in primary school children*], Sema 1*(2), 67–84. https://doi.org/10.35537/10915/70112

Ravid, D., & Schiff, R. (2006). Roots and patterns in Hebrew language development: Evidence from written morphology analogies. *Reading and Writing, 19*, 789–818. https://doi.org/10.1007/s11145-006-9004-3

Reed, D. K. (2008). A synthesis of morphology interventions and effects on reading outcomes for students in grades K–12. *Learning Disabilities Research & Practice, 23*(1), 36–49. https://doi.org/10.1111/j.1540-5826.2007.00261.x

Rinaldi, S., Caselli, M. C., Cofelice, V., D'Amico, S., De Cagno, A. G., Della Corte, G., Di Martino, M. V., Di Costanzo, B., Levorato, M. C., Penge, R., Rossetto, T., Sansavini, A., Vecchi, S., & Zoccolotti, P. (2021). Efficacy of the treatment of developmental language disorder: A systematic review. *Brain Sciences, 11*(3), 407. https://doi.org/10.3390/brainsci11030407

Rodríguez Cuevas, M. (2018). *Modificación de palabras orales por agregado de morfemas en niños preescolares* [*Modification of oral words by adding morphemes in preschool children*] Unpublished Master's thesis). Tesis (MC)--Centro de Investigación y de Estudios Avanzados del IPN Departamento de Investigaciones Educativas.

Sanz-Torrent, M., Andreu, L., Badia, I., & Serra, M. (2010). El proceso lector en niños con antecedentes de retraso y trastorno específico del lenguaje. [The reading process in children with a history of delay and specific language disorder] *Revista de Logopedia, Foniatría y Audiología, 30*(1), 23–33. https://doi.org/10.1016/s0214-4603(10)70005-x

Stoeckel, R. E., Colligan, R. C., Barbaresi, W. J., Weaver, A. L., Killian, J. M., & Katusic, S. K. (2013). Early speech-language impairment and risk for written language disorder: A population-based study. *Journal of Developmental and Behavioral Pediatrics, 34*(1), 38. https://doi.org/10.1097/dbp.0b013e31827ba22a

Stoll Walsh, E. (2002). *Pinta Ratones*. [*Paint Mice*]. Traducción de Gerardo Cabello. Fondo de Cultura Económica-Secretaría de Educación Pública.

Torres-Bustos, V., Riffo-Ocares, B., & Sáez-Carrillo, K. (2022). Diferencias entre el rendimiento en tareas de conciencia fonológica y conciencia prosódica acentual en escolares con trastorno del desarrollo del lenguaje. [Differences between performance on phonological awareness tasks and stress prosodic awareness in schoolchildren with developmental language disorder] *Revista de Logopedia, Foniatría y Audiología, 42*(2), 80–89. https://doi.org/10.1016/j.rlfa.2021.02.004

Varela, O. S. (2005). *Morfología léxica: la formación de palabras*. [Lexical morphology: word formation] Gredos.

Velázquez, A. (2017). *Modalidades de reflexión morfológica en niños de primaria [Modalities of morphological reflection in primary school children]* (Unpublished doctoral dissertation). DIE-CINVESTAV, Mexico.

Velázquez, A., & Ferreiro, E. (2015). Acercamiento a los procesos de toma de conciencia morfológica en niños hispanohablantes: el caso de RE–, DES–, –CION y –MENTE. [Approach to the processes of morphological awareness in Spanish-speaking children: the case of RE–, DES–, –CION and –MENTE] *Rassegna di Psicologia, 23*(2), 61–77.

Vernon, S. (2004). ¿Qué tanto es un pedacito? El análisis que los niños hacen de las partes de la palabra. [How much is a little piece? The analysis that children make of the parts of the word] In A. Pellicer & S. Vernon (Eds.), *Aprender y enseñar la lengua escrita en el aula*. [*Learning and teaching written language in the classroom*] SM.

Vernon, S. A., & Ferreiro, E. (1999). Writing development: A neglected variable in the consideration of phonological awareness. *Harvard Educational Review, 69*(4), 395. https://doi.org/10.17763/haer.69.4.p411667586738x0w

Zamudio, C. (2004). *El papel de la transcripción en la construcción del dato lingüístico [The role of transcription in the construction of linguistic data]* (Unpublished doctoral dissertation). El Colegio de México, Centro de Estudios Lingüísticos y Literarios.

Chapter 10
Difficulties in Acquiring and Developing Writing Skills

Barbara Arfé and Julie E. Dockrell

10.1 Introduction

A significant number of elementary school students struggle with writing. Struggling writers (SWs) experience difficulties with a broad range of the component skills which underpin writing. This is challenging in terms of the conceptualization of writing development, understanding the relative impact of different skills (Abbott et al., 2010; Kent & Wanzek, 2016; Kim & Schatschneider, 2017), and, as such, targeting key skills to support writing development (Olinghouse & Santangelo, 2010). The key to providing effective interventions is to identify breakpoints in the writing process. This necessitates an understanding of both the proximal and distal factors that underpin writing performance at different points in the development of the writing process. Proximal factors can be described as the direct building blocks in the production of written text, whereas distal factors reflect the underpinning competencies that support writing and thus play a more indirect role (Zoccolotti et al., 2014). Distal underlying competencies include oral language, reading, working memory, and executive function. These factors mediate the production of written text and often act as a significant barrier for children with learning disabilities (Dockrell et al., 2014).

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Several frameworks/models exist to conceptualize the development of writing which focus on the interacting components necessary for writing (Berninger & Winn, 2006; Kim & Schatschneider, 2016) or wider factors, such as a writer's capacity limitations (McCutchen, 1996) or the writing process itself (Chenoweth & Hayes, 2001). These models vary to the extent that they capture writing as a developmental process and the distal factors which impact on writing development. There is more consistency across models and frameworks in the delineation of the proximal factors which support the initial stages of writing development.

Transcription skills, both handwriting and spelling, directly impact on the production of written text and are best conceptualized as proximal factors (Dockrell et al., 2019a, b). These factors have consistently been captured in developmental models and are considered both core skills and potential breakpoints (Wagner et al., 2011). Transcription skills also support children's planning and editing, and as such, fluency in transcription frees up cognitive resources allowing children to produce more complex and extended texts. Research has typically focused on the proximal causes, or the links between them, in the identification of SWs (Connelly et al., 2012a, b). However, as children master these proximal skills and then distal factor, those abilities, which transfer to the production of written text, are hypothesized to play a greater role in text generation, even though the variance accounted for in the children's written products is often small (Kent & Wanzek, 2016; Kim & Schatschneider, 2017). In sum, an analysis of the factors that impact on writing development should include both distal and proximal drives of text production. How then should written text be conceptualized?

10.2 Describing the Production of Written Text

When we consider difficulties in writing acquisition, it is helpful to think about word, sentence, and text levels (Fayol et al., 2012; Hayes & Berninger, 2014). This has several important advantages in capturing writing difficulties; it ensures that the researcher and practitioner link writing to the levels of language necessary to produce a proficient text and as such can capture bottlenecks in transcription, at word level (Kim et al., 2015a; Skar et al., 2022; Sumner et al., 2016), and text generation, at sentence (Dockrell et al., 2019a, b) and text levels (Koutsofas, 2016). For example, competence at the sentence level is an important developmental hurdle that children need to achieve to create quality text-level writing (Arfé & Pizzocaro, 2016; Arfé et al., 2016; Berninger et al., 2011; Dockrell et al., 2019a, b).

While this approach could be viewed as portraying writing proficiency and as hierarchically organized, these components are likely, at least, semi-independent. More recently, these dimensions have been refined to include factors related to text complexity and organization at word, sentence, and text level. Wagner et al. (2011) identified a five-factor model of writing proficiency for students between first and fourth grades including macro-organization ideas (text level), productivity (word level including number and diversity of words used), complexity (sentence level

including both syntactic density and mean length of T units), and transcription (spelling, punctuation, and handwriting fluency). Although these dimensions vary by age and population assessed, they all capture dimensions of productivity such as numbers of words generated and complexity such as quality, accuracy, and grammatical correctness (Puranik et al., 2008; Wagner et al., 2011). These dimensions appear to be dissociable products with different independent predictors (Kim et al., 2015a, b).

10.2.1 Word-Level Skills

Word-level skills are underpinned by handwriting, spelling, and morphology and children's receptive and expressive oral language. These skills can be measured by both productivity (numbers of words written), accuracy (number of words spelled correctly), and lexical diversity. However, these measures are highly sensitive to number of words produced. This is a significant confound for students who produce shorter texts or if the sample size of texts produced varies markedly. Another approach using a mathematical formula to produce a single parameter D is argued to be a much more accurate reflection of the lexical diversity of texts (Duran et al., 2004). However, a minimum sample size of 50 words is needed to calculate D and the type of writing task impacts on diversity (Yu, 2010). The writing products of younger elementary school children often are simply not long enough to capture diversity. The reduced numbers of words produced by the students will also have bearing on other attempts at more fine-grained analyses of the students' texts. Students need to produce enough words to judge these features, and for the novice writer and struggling writers, there may simply be insufficient tokens to make this kind of analysis. As an example, in a recent study examining verb argument structures in the writing of elementary school pupils, there was limited variety in the use of verb structures, and indeed, verb use was generally limited to more general all-purpose verbs (Stuart et al., 2020). Moreover, the number of verbs and the number of different verbs produced by the children did not account for significant variance in writing quality measures.

10.2.2 Sentence-Level Skills

Young writers and struggling writers may have ideas for the text but can find it difficult to translate them into sentences. The ability to express ideas in written sentences relies on distal factors, such as the development of oral language (vocabulary and grammatical) knowledge and working memory capacity, and on proximal competencies, including oral sentence generation skills that involve word finding abilities (Abbott & Berninger, 1993), the ability to use grammatical rules (Arfé & Pizzocaro, 2016), and transcription skills (Dockrell et al., 2019a, Dockrell, et al.,

2014). As sentence construction occurs in memory and the coordination between sentence generation and transcription processes employs memory resources, the ability to generate clear and complete sentences for a text also requires working memory capacity (Dockrell et al., 2019a; Dockrell et al., 2014; McCutchen et al., 1994). All these components can be captured through sentence production tasks that assess the ability to (1) generate single sentences orally from lists of words (McCutchen et al., 1994); (2) construct a written sentence from a verbal prompt, i.e., a topic (Berninger et al., 2011); (3) generate written sentences from word pairs (Arfé et al., 2016) or from picture prompts and target words (Coker et al., 2018); or (4) reformulate sentences, using different words or a different grammatical structure (Arfé et al., 2021). Examples of written sentence generation and sentence reformulation tasks are reported in Tables 10.1 and 10.2.

The choice of the specific sentence generation task depends on the child's age and language level. Therefore, tasks with limited constraints such as generating single sentences from a word or on a topic can be more appropriate to assess sentence-level text generation skills in younger and less-skilled writers, whereas tasks requiring metalinguistic skills, such as sentence reformulation, can be more appropriate to assess sentence-level skills at higher levels of competence or among older writers (Arfé et al., 2016). Ecologically valid measures of sentence-level skills in writing are also the quantity and quality (for correctness and complexity) of sentences children can generate in real text production tasks (Dockrell et al., 2009;

Table 10.1 Sentence generation task

Instructions	Examples of sentences
Children receive a sheet of lined paper with two word pairs (*water-bridge* and *child-car*) and are asked to write down as many sentences as possible, incorporating both words in their original form, in 5 min for each pair. Before beginning, children are provided an example	**Bridge-water** *The bridge was over the water* *The water flowed under the bridge* *The child looked at the water from the bridge* *A car was crossing the bridge over the water* *There is a bridge and water below*
Scoring	Scoring examples
2 points are earned for each morphosyntactically correct and semantically plausible sentence produced for each word pair; 1 point when the sentence is only semantically plausible or morphosyntactically correct; 0 points for sentences that are both semantically and morphosyntactically incorrect	*The water flowed under the bridge* (2 points) *The child was crossing the bridge over the river* (0 points; *water* is missed; the child is not using both words) *Bill was looking at the water down from the bridge* (1 point. The sentence is semantically plausible, but morphosyntactically inaccurate) *The child is drinking the water from the bridge* (morphosyntactically accurate, but semantically implausible, 1 point)

Table 10.2 Sentence reformulation task

Instructions	Examples of reformulation
Students receive a sheet of lined paper with two simple (one clause) and two complex sentences (a main clause and a subordinate clause) and are asked to find alternative ways to express the meaning of the sentence. Each sentence can be reformulated in up to three different ways, by using different words (i.e., synonyms or paraphrases) and/or transforming the grammatical structure of the sentence (e.g., from passive to active). Simple sentences were presented first, followed by complex sentences. A time limit of 10 min was given for each trial	**Simple sentence:** ***Sarah play cards with Lucy*** *Sarah and Lucy play cards together* *Lucy plays cards with Sarah* *Sarah wants to play cards with Lucy*
Scoring	Scoring examples
A score of 2 is awarded if the reformulated sentence is grammatically correct and maintains the meaning of the target sentence; 1 is given to reformulations that are grammatically correct but do not maintain the original meaning of the item; 0 points when the reformulation is incorrect both grammatically and semantically or the reformulated sentence is totally unrelated to the target	*Sarah and Lucy play cards together* (2 points) *Lucy plays cards with Sarah* (2 points) *Sarah wants to play cards with Lucy* (1 point; the sentence conveys a different meaning than the original) *Sarah makes a cake with Lucy* (0 points; the sentence is unrelated to the target)

Puranik et al., 2008), in which sentence generation is constrained by the text already produced.

When sentence generation skills are assessed in the written modality, the assessment considers the cognitive load of generating sentences while managing the competing demands of transcription, which is always preferable when evaluating writing difficulties (Arfé et al., 2016; Dockrell et al., 2019a; Dockrell et al., 2014). Children's ability to generate ideas in single grammatically and semantically correct written sentences from prompts, such as a word pair, can be a highly sensitive measure of writing difficulties among young writers (Arfé et al., 2016; Arfé et al., 2021; Dockrell et al., 2019a). Written sentence fluency has indeed been proved effective in discriminating between writers with and without expressive writing difficulties across deep and shallow orthographies (Arfé & Pizzocaro, 2016; Dockrell et al., 2019a), explaining variance in writing productivity (the amount of text writers produce), accuracy (the amount of lexical, spelling, and sentence-level errors in text), and the overall perceived quality of the text, considering its overall linguistic quality, organization, and coherence from early grades (Arfé et al., 2016). While sentence-level measures drawn from text production tasks are crucial to assess children's ability to generate sentences within connected discourse, single-sentence generation tasks can be more appropriate when the diagnostic aim is to isolate the child's sentence-level performance (Arfé et al., 2021; Dockrell et al., 2019a).

10.2.3 Text-Level Performance

Analysis of texts raises challenges both in the reliable and valid assessment of the writer's product (Dockrell & Connelly, 2021) and in terms of the text genre that is required. Ideally, to capture writing competence, comparisons should be made across different writing genres (Berman, 2008; Olinghouse & Wilson, 2013). Narrative and expository writing are common school tasks, and comparisons between the two genres have been the focus of several studies. Narrative writing involves telling a story, while expository texts involve conveying facts or describing procedures. Expository texts take longer to master (Berman & Verhoeven, 2002), and the differences are evident in the student's text (Beers & Nagy, 2011; Koutsoftas & Gray, 2012). Expository writing is more cognitively demanding for novice writers and demands the use of both more complex vocabulary (Berman & Nir-Sagiv, 2007) and more sophisticated sentence structure (Reilly et al., 2005). This places a greater cognitive load on the writer, including greater time in planning and more sophisticated knowledge transforming (Beauvais et al., 2011). There is also indicative evidence that, at least for L2 writers, the two writing genres influence inter-rater reliability (Jeong, 2017). Novice writers produce shorter summaries which are more error prone when they produce expository texts. However, more complex text structures may be used in expository written products (Scott & Windsor, 2000).

10.3 Children Learning to Write

Children bring different competencies, experiences, and languages to the writing process. Specifically, children with developmental difficulties/learning difficulties have been the focus of researchers. These studies have focused on dyslexia (Hebert et al., 2018); developmental motor coordination (DCD) (Prunty et al., 2016); developmental language disorders (DLD), previously called specific language impairment (Graham et al., 2020); and autism (Zajic & Wilson, 2020). The impact of poor reading comprehension has been linked to problems with the quality of children's written outputs (Cragg & Nation, 2006). While each of these developmental difficulties presents with a different profile of difficulties, their problems serve to highlight the complexity of the writing process and the ways in which proximal and distal factors impact on writing. For example, Hebert et al. (2018) examined why children with dyslexia struggle with writing. They report a high percentage of misspelled words, difficult-to-read handwriting, poor organization, a lack of fully developed ideas, and/or a lack of diverse vocabulary, while for children with DCD, problems are evident beyond the expected motor aspects of handwriting (Prunty et al., 2016). By corollary, while the primary problem for children with DLD is oral language and, as a result, the ability to generate ideas in texts, the precise linguistic driver is a matter of debate (Macki et al., 2013). This suggests that it is important to move beyond diagnostic categories and capture profiles of need across development.

Vocabulary, oral sentence skills, and discourse-level language are all associated with writing development (Abbott & Berninger, 1993; Arfé et al., 2016; Arfé & Pizzocaro, 2016; Dockrell et al., 2019a; Kim & Schatschneider, 2016). Isolating their effects depends on the age of the children assessed, the way in which writing is assessed, and whether the children assessed have additional learning needs (Connelly et al., 2012a, b; Dockrell et al., 2012). Current studies typically report only weak to moderate correlations between measures of oral language and the quality of student's writing and weak correlations with productivity (Apel & Apel, 2011; Kent & Wanzek, 2016; Olinghouse & Graham, 2009; Olinghouse & Leaird, 2009), suggesting that while oral language is important, it is not as significant or robust as the impact of proximal factors. Consequently, oral language may best be conceptualized as a distal factor supporting the development of written text production. Distal, however, does not mean insignificant as there is preliminary evidence that oral sentence fluency supports written text generation over time and across languages (Savage et al., 2017).

Reading also influences written text production. Word reading is associated with transcription skills, and word recognition skills consistently predict spelling abilities at all elementary grade levels (Abbott & Berninger, 1993). Additionally, improvement in word reading leads to an improvement in spelling (Ahmed et al., 2014). By corollary, poor reading comprehension impacts on text-level writing, where children with poorer reading comprehension, but age-appropriate spelling, produce texts which are more limited and less sophisticated in comparison to age-matched peers (Cragg & Nation, 2006). Bidirectional relations between reading and writing exist (Abbott et al., 2010), but recent evidence suggests that that reading-to-writing conceptualizations are superior, especially for word and text levels of writing (Ahmed et al., 2014). Again, only moderate associations between writing and measures of reading are reported (Kent & Wanzek, 2016).

The coordination of the components of text production places heavy demands on WM resources (McCutchen, 1996; Olive et al., 2009). If a child needs to search for the letters to create a word, then ideas and plans can be lost as they overload the capacity of WM (Graham et al., 1997). WM is also an independent longitudinal predictor of later writing disabilities in elementary school (Costa et al., 2018) and listening span, a measure of WM, a significant predictor of text generation in upper elementary school (Swanson, 1996).

In sum, the data suggest that when considering individual children's challenges in learning to write, it is important to profile both proximal and distal skills and not rely on diagnostic categories (Dockrell et al., 2019a, b). An important consideration is, however, the language in which children are learning to write. Different languages cause different challenges in text production, and as such, different breakpoints may be evident.

10.3.1 Languages They Write

In English, transcription skills (handwriting and spelling) constrain written production at the early stages of learning to write. The effect of transcription diminishes with age, when reading skills enhance text production. Less is known about how transcription and reading interact with writing in other languages although both orthography transparency and morphological complexity of the language impact on writing development. Language impacts are evident in spelling, as demonstrated by Bigozzi and Vettori (2016) for Italian, Joye et al. (2020) for French, Mo et al. (2018) for Chinese, and Ravid (2001) for Hebrew. L1 language also impacts spelling in an L2 (Arfé & Danzak, 2020; Arfé & Zancato, 2022).

An interesting insight into the differential impacts of language on writing comes from a study by Llaurado and Dockrell (2020). In this study, the authors explored the relationships between spelling, reading, and the length and quality of written text produced by primary school children speaking three different languages: Catalan, English, and Spanish. The authors argued that these languages are good test cases for models of writing development as they contrast orthographically and morphologically. Language had a significant effect on text production measures: young Spanish children produced longer texts which were of higher quality than the Catalan- and English-speaking children. Spanish-speaking children also produced the lowest number of spelling errors both at the root and for affixed morphemes. By contrast, the English-speaking children produced the highest number of both types of errors. The Catalan-speaking children did not differ significantly from their English peers for root-level spelling but produced significantly fewer spelling errors at the affixed morpheme level. Different patterns of relationships between transcription, reading, and text production emerged across the three languages. In Catalan, only handwriting fluency accounted for significant variance in text productivity and quality. By contrast, for the English children, significant variance in productivity was accounted for by reading and handwriting fluency and for text quality by handwriting fluency and spelling. For the Spanish children, reading skills were the significant factor for text quality. These data and comparative studies across languages (McBride et al., 2022; Perfetti & Liu, 2005) highlight the importance of examining language-specific factors both in the identification of struggling writers and in the interventions devised to support writing skills.

10.4 Writing Pedagogy and Interventions

Thinking about writing intervention for school children who struggle with writing needs a coordinated approach in terms of both how teaching is targeted and what is targeted. Writing processes, i.e., transcription, text generation, planning, and revising, develop in interaction with each other. Hence, selective difficulties in specific writing subprocesses, like handwriting, rarely remain isolated, impacting on other

writing processes, like text generation, that develop in interaction with them (Beers et al., 2017; Berninger et al., 1997; Wolf et al., 2017).

Empirically validated developmental models/frameworks of writing, like the not-so-simple view of writing (Berninger et al., 2002), and the direct and indirect effects model of writing (DIEW, Kim, 2016; Kim & Schatschneider, 2017) highlight areas to target and inform the ways in which interventions could better support writing at different points of writing development for students with different writing needs. For instance, poor transcription skills constrain written expression and the development of writing skills (Berninger et al., 1992; Graham et al., 1997); as such, an early emphasis in writing instruction improving fluency in spelling and handwriting is key (Alves et al., 2016; Arfé et al., 2018; Berninger et al., 1998a, b; Berninger et al., 1997; Wolf et al., 2017). Such instructional interventions have proved to have positive effects both on the amount of text students produce and on their writing quality (Santangelo & Graham, 2016).

A belief among some teachers is that giving children opportunities to practice spelling and handwriting will spontaneously result in mastering these two writing processes as a result of self-teaching, or implicit learning, mechanisms (Shahar-Yames & Share, 2008). Yet, when children experience writing difficulties, practice alone, without any scaffolding, is generally insufficient. In some circumstances, when the child's learning processes are inefficient, such as dyslexia, even counterproductive for the development of transcription skills (Arfé et al., 2018), formal and systematic handwriting and spelling instruction, in which teachers model the motor patterns of handwriting or teach explicitly how to spell specific words or use spelling rules, are necessary (Graham & Santangelo, 2014; McMaster et al., 2018). Research also shows that spelling and handwriting interventions are most effective when multi-modal strategies that combine visual and auditory or auditory, visual, and graphomotor word processing are used to teach children integrating motor, visual, and phonological/auditory processes in word transcription (Arfé et al., 2018; Berninger et al., 1998a, b; Wolf et al., 2017) and when embedded in composing activities (Berninger et al., 2002). Problems in transcription can impact on the development of other writing processes that develop in interaction with them. As such, a multi-focused pedagogical approach, which combines attention to the weak component (e.g., spelling) with a comprehensive intervention that also sustains the

Table 10.3 Text produced by a third grader with expressive writing problems

The best day I had at school was...
Marta, Grade 3 (Italian and English translation) *ITALIAN*: SONO ANDATA IN GITA CON I MIEI COMPAGNI LA COSA CHE MIE PIACIUTA DI PIU ESTTATAQADO SIAMO ANDATI NEI PONI E CAVALI E SI CHIAMAVA CAIBOLED EPOI MIE PIACIUTO ACHE QUADO ABIAMO VISTO IL CIMITERO DEI CAIBOL. *ENGLISH*: I WENT ON TRIP WITH MY CLASSMATES THE THING I LIKED MOST ITWASWHE [*it was when*] WE WENT IN THE PONIES AND HORSES AND IT WAS NAMED COIBOLED [cowboyland] ANDTHEN I LIKED EVE [even] WHE [when] WE SAW THE CEMITERY OF THE CAIBOL [cowboys]

development of potentially preserved higher-order compositional skills, is needed. These higher-order factors include self-regulation (Limpo & Alves, 2018) or text generation (Berninger et al., 2002). Such a multi-focused approach is often considered more effective than highly focused transcription interventions.

Reducing the burdens of transcription is indeed often insufficient to enhance children's text generation skills to a level that allows them to express their ideas through writing. Many students who have writing difficulties may also lack the syntactic and semantic skills to translate their ideas in text (Arfé et al., 2021; Dockrell & Connelly, 2013; Dockrell et al., 2007); see the examples in Table 10.3. These abilities, which are more strongly related to oral language development, can be also a target of writing instruction. Text generation skills can be trained through complex generative writing tasks that require children to produce connected text (Berninger et al., 2002; Coker et al., 2018) or through focused activities, such as grammar instruction (Jones et al., 2013), written sentence combining (Saddler & Graham, 2005), or oral sentence generation (Arfé et al., 2021). These latter activities, aimed at sustaining the development of sentence-level text generation skills, could be particularly helpful with the children who struggle with the linguistic translation of their ideas.

Grammar instruction alone, which is common among primary school teachers, is often insufficient to support the acquisition of text generation skills (Graham & Perin, 2007). Indeed, in addition to grammatical knowledge, text generation also requires the ability to find words, combine them in working memory, and connect new sentences with the text generated to that point. Written sentence combining, which trains written sentence generation skills, has been found to be very effective in sustaining students' sentence construction abilities, with moderate positive effects (ES = 0.50) on children's writing (Graham & Perin, 2007).

As a first approach, teaching sentence generation skills through writing tasks may be excessively demanding for children with language learning difficulties, who struggle with both transcription and oral language (Dockrell et al., 2007, 2009). An alternative is to introduce oral language interventions at sentence and/or discourse level into comprehensive writing or literacy instructional programs, so that students can practice text generation without the burden of transcription. The benefits of embedding oral language into writing instruction have been examined mainly with young, beginning writers (Goldfeld et al., 2017; Spencer & Petersen, 2018). In a recent research, however, Arfé et al. (2021) found that training students on oral sentence generation can be an effective strategy to improve the written composition skills of older writers too. In this study, the authors carried out a randomized controlled trial to examine the impact of oral sentence generation (grammatical and syntactic) on the written text production of fifth and tenth graders. Their intervention consisted of team-based games to improve oral sentence generation and sentence reformulation skills. Two examples of sentence games are reported in Table 10.4. Training on oral sentence generation skills resulted in significant gains in both sentence generation and sentence reformulation skills and text macrostructural quality, but improvement at the sentence level was significant only for the younger writers.

Table 10.4 Examples of oral sentence generation games from Arfé et al. (2021)

Sentence puzzles The game is played in teams of 3–5 members. Each team receives a box with 15 puzzle pieces corresponding to sentence elements. Each element has a different color depending on its grammatical category (e.g., light blue for articles, pink for verbs, violet for nouns, brown for prepositions, etc.). Students are asked to use as many puzzle pieces (sentence elements) as possible to generate a sentence. One point is awarded by the team for each element (puzzle piece) added to the sentence. The longer the sentence, the higher the team's score. Grammatically incorrect sentences are scored 0.	
Crazy sentences The game is played in teams of 3–5 members each. Each team is given two picture cards (four content elements) plus a puzzle piece representing a coordinating or subordinating conjunction or a pronoun. Students are asked to generate sentences within 20 s using the two cards and the puzzle piece. Teams are provided with a conjunctions table with connectives divided based on their logical function (causal, temporal, etc.) to decide how to use the connective. The sentences produced are evaluated by the other teams and discussed with them.	

Another way to support text generation and the production of quality writing is to support the development of self-regulation skills. Good writers can plan and are good at monitoring their writing process and revising their written products (Berninger et al., 2002). These abilities are acquired through explicit instruction and classroom discussion of specific writing strategies, e.g., planning or revising, or through comprehensive self-regulation programs, like the self-regulated strategy development (SRSD). While strategy instruction involves teachers' modeling how to use strategies and their skillful use of scaffolding, until children practice the strategy autonomously, spontaneous writing will not improve. SRSD programs are more comprehensive and complex: children are taught not only specific writing strategies but also the background knowledge necessary to use them (i.e., when and why to apply a specific strategy) and the procedures needed for regulating their use: goal setting, self-monitoring, self-instruction, and self-reinforcement. These comprehensive interventions show the largest effects (ES = 1.17) among instructional writing interventions on how students write (Graham et al., 2012); however, they also require considerable teacher's training.

10.5 Final Remarks

We have argued that the key to understanding the writing difficulties that children experience is to profile their performance on proximal and distal factors that support written text generation. These profiles need to consider the age of the child, the language in which they are learning to write, and any specific developmental barriers that may impact writing. Recent years have witnessed an increased focus on the teaching of writing, but there continue to be concerns about how and when writing is taught in schools and whether children are provided with sufficient opportunity to practice the skills they are developing (Graham, 2019). Reduced quality and quantity of writing instruction acts as a barrier to writing development and when these pedagogical challenges are not addressed results in significant numbers of struggling writers and an increased need for targeted interventions to support struggling writers.

Writing is a complex problem-solving process, and thus practicing isolated writing skills, like spelling or sentence generation, although necessary, is often insufficient to overcome the writing problems of struggling writers. Rehabilitation programs or focused interventions, targeting specific writing skills, typically spelling or handwriting, may have limited impact if children are not helped to transfer the abilities and strategies developed in the context of complex writing activities. This explains why even best-evidence and powerful focused interventions may not show the generalization and maintenance effects that are expected at instructional level (Arfé et al., 2018). Instructional writing research shows that comprehensive, classroom-based, writing interventions are needed to help struggling writers functionally integrate the skills acquired (e.g., spelling or text generation) in complex writing activities (Graham et al., 2012). At classroom level, this involves not simply

providing opportunities to practice the acquired writing component skills but also providing opportunities to embed this practice within real meaningful, communicative writing tasks. Classroom-based writing instruction indeed encompasses not only the writer and her individual cognitive skills but also a communicative context, with real readers (the teachers), who provide a social motivation to write (Boscolo, 2014). Given the large individual and demographic differences in school populations, to develop this comprehensive approach to writing, teachers need not only an understanding of the writing process, of writing development, and of the proximal and distal factors affecting writing but also the ability to identify the variety of writing needs in a classroom and the teaching skills to address, in a range of different ways, the foundational skills that need to be taught. Providing teachers with these professional skills represents one of the greatest challenges of writing instruction (Dockrell & Connelly, 2021).

References

Abbott, R. D., & Berninger, V. W. (1993). Structural equation modeling of relationships among developmental skills and writing skills in primary-grade and intermediate grade writers. *Journal of Educational Psychology, 85*(3), 478. https://doi.org/10.1037/0022-0663.85.3.478

Abbott, R. D., Berninger, V. W., & Fayol, M. (2010). Longitudinal relationships of levels of language in writing and between writing and reading in grades 1 to 7. *Journal of Educational Psychology, 102*(2), 281–298. https://doi.org/10.1037/a0019318

Ahmed, Y., Wagner, R. K., & Lopez, D. (2014). Developmental relations between reading and writing at the word, sentence, and text levels: A latent change score analysis. Journal of Educational Psychology, 106(2), 419–434. https://doi.org/10.1037/a0035692

Alves, R. A., Limpo, T., Fidalgo, R., Carvalhais, L., Pereira, L. A., & Castro, S. L. (2016). The impact of promoting transcription on early text production: Effects on bursts and pauses, levels of written language, and writing performance. *Journal of Educational Psychology, 108*(5), 665–679. https://doi.org/10.1037/edu0000089

Apel, K., & Apel, L. (2011). Identifying intraindividual differences in students' written language abilities. *Topics in Language Disorders, 31*(1), 54–72. https://doi.org/10.1097/TLD.0b013e31820a22b4

Arfé, B., & Danzak, R. L. (2020). The influence of first language spelling and response inhibition skills on English-as-an-additional-language spelling. *Cognitive Development, 56*, 100952. https://doi.org/10.1016/j.cogdev.2020.100952

Arfé, B., & Pizzocaro, E. (2016). Sentence generation in children with and without problems of written expression. In J. Perera, M. Aparici, E. Rosado, & N. Salas (Eds.), *Written and spoken development across the lifespan*. Springer.

Arfé, B., & Zancato, T. (2022). Language-specific effects in response to spelling intervention in Italian and in English as an additional language. *Journal of Learning Disabilities, 55*(2), 99–113. https://doi.org/10.1177/00222194211001757

Arfé, B., Dockrell, J. E., & De Bernardi, B. (2016). The effect of language specific factors on early written composition: The role of spelling, oral language and text generation skills in a shallow orthography. *Reading and Writing, 29*(3), 501–527. https://doi.org/10.1007/s11145-015-9617-5

Arfé, B., Cona, E., & Merella, A. (2018). Training implicit learning of spelling in Italian children with developmental dyslexia. *Topics in Language Disorders, 38*(4), 299–315. https://doi.org/10.1097/tld.0000000000000163

Arfé, B., Festa, F., Ronconi, L., & Spicciarelli, G. (2021). Oral sentence generation training to improve fifth and 10th graders' writing. *Reading and Writing, 34*, 1851–1883. https://doi.org/10.1007/s11145-020-10114-5

Beauvais, C., Olive, T., & Passerault, J. M. (2011). Why are some texts good and others not? Relationship between text quality and management of the writing processes. *Journal of Educational Psychology, 103*(2), 415–428. https://doi.org/10.1037/a0022545

Beers, S. F., Mickail, T., Abbott, R., & Berninger, V. (2017). Effects of transcription ability and transcription mode on translation: Evidence from written compositions, language bursts and pauses when students in grades 4 to 9, with and without persisting dyslexia or dysgraphia, compose by pen or by keyboard. *Journal of Writing Research, 9*(1), 1–25. https://doi.org/10.17239/jowr-2017.09.01.01

Beers, S. F., & Nagy, W. E. (2011). Writing development in four genres from grade three to seven: syntactic complexity and syntactic generation. *Reading and Writing, 24*, 183–202

Berman, R. A., & Nir-Sagiv, B. (2007). Comparing narrative and expository text construction across adolescence: A developmental paradox. *Discourse Processes, 43*(2), 79–120. https://doi.org/10.1207/s15326950dp4302_1

Berman, R. A. (2008). The psycholinguistics of developing text construction. *Journal of Child Language, 35*, 735–771

Berman, R. A., & Verhoeven, L. (2002). Cross-linguistic perspectives on the development of text-production abilities: Speech and writing. *Written Language and Literacy, 5*(1), 1–43. https://doi.org/10.1075/wll.5.1.02ber

Berninger, V. W., & Winn, W. D. (2006). Implications of advancements in brain research and technology for writing development, writing instruction, and educational evolution. In C. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research*. (pp. 96–114) The Guildford Press.

Berninger, V., Yates, C., Cartwright, A., Rutberg, J., Remy, E., & Abbott, R. (1992). Lower-level developmental skills in beginning writing. *Reading and Writing, 4*(3), 257–280. https://doi.org/10.1007/bf01027151

Berninger, V. W., Vaughan, K. B., Graham, S., Abbott, R. D., Abbott, S. P., Rogan, L. W., et al. (1997). Treatment of handwriting problems in beginning writers: Transfer from handwriting to composition. *Journal of Educational Psychology, 89*(4), 652–666. https://doi.org/10.1037/0022-0663.89.4.652

Berninger, V., Abbott, R., Rogan, L., Reed, E., Abbott, S., Brooks, A., et al. (1998a). Teaching spelling to children with specific learning disabilities: The mind's ear and eye beat the computer or pencil. *Learning Disability Quarterly, 21*(2), 106–122. https://doi.org/10.2307/1511340

Berninger, V. W., Vaughan, K., Graham, S., Abbott, R. D., Brooks, A., Abbott, S. P., et al. (1998b). Early intervention for spelling problems: Teaching functional spelling units of varying size with a multiple-connections framework. *Journal of Educational Psychology, 90*(4), 587–605. https://doi.org/10.1037/0022-0663.90.4.587

Berninger, V. W., Vaughan, K., Abbott, R. D., Begay, K., Coleman, K. B., Curtin, G., et al. (2002). Teaching spelling and composition alone and together: Implications for the simple view of writing. *Journal of Educational Psychology, 94*(2), 291. https://doi.org/10.1037//0022-0663.94.2.291

Berninger, V. W., Nagy, W., & Beers, S. (2011). Child writers' construction and reconstruction of single sentences and construction of multi-sentence texts: Contributions of syntax and transcription to translation. *Reading and Writing, 24*(2), 151–182. https://doi.org/10.1007/s11145-010-9262-y

Bigozzi, L., & Vettori, G. (2016). To tell a story, to write it: Developmental patterns of narrative skills from preschool to first grade. *European Journal of Psychology of Education, 31*(4), 461–477. http://www.jstor.org/stable/44951847

Boscolo, P. (2014). Two metaphors for writing research and their implications for writing instruction. In B., Arfé, J. E. Dockrell and W.V. Berninger (Eds.), *Writing Development in Children*

with Hearing Loss, Dyslexia or Oral Language Problems: Implications for Assessment and Instruction (pp.33–42). Oxford University Press.

Chenoweth, N. A., & Hayes, J. R. (2001). Fluency in writing – Generating text in L1 and L2. *Written Communication, 18*(1), 80–98. https://doi.org/10.1177/0741088301018001004

Coker, D. L., Jennings, A. S., Farley-Ripple, E., & MacArthur, C. A. (2018). The type of writing instruction and practice matters: The direct and indirect effects of writing instruction and student practice on reading achievement. *Journal of Educational Psychology, 110*(4), 502–517. https://doi.org/10.1037/edu0000232

Connelly, V., Dockrell, J. E., & Barnett, A. (2012a). Children challenged by writing due to language and motor difficulties. In V. Berninger (Ed.), *Cognitive psychology of writing handbook: Past, present, and future contributions of cognitive writing research to cognitive psychology* (pp. 217-245). Psychology Press.

Connelly, V., Dockrell, J. E., Walter, K., & Critten, S. (2012b). Predicting the quality of composition and written language bursts from oral language, spelling, and handwriting skills in children with and without specific language impairment. *Written Communication, 29*(3), 278–302. https://doi.org/10.1177/0741088312451109

Costa, J., Green, M., Sideris, J., & Hooper, S. R. (2018). First-grade cognitive predictors or writing disabilities in grades 2 through 4 elementary school students. *Journal of Learning Disabilities, 51*(4), 351–362. https://doi.org/10.1177/0022219417721182

Cragg, L., & Nation, K. (2006). Exploring written narrative in children with poor reading comprehension. *Educational Psychology, 26*(1), 55–72. https://doi.org/10.1080/01443410500340991

Dockrell, J. E., & Connelly, V. (2021). Assessing writing. In T. Limpo & T. Olive (Eds.), *Executive functions and writing*. Oxford University Press.

Dockrell, J. E., Lindsay, G., Connelly, V., & Mackie, C. (2007). Constraints in the production of written text in children with specific language impairments. *Exceptional Children, 73*(2), 147–164.

Dockrell, J. E., Lindsay, G., & Connelly, V. (2009). The impact of specific language impairment on adolescents' written text. *Exceptional Children, 75*(4), 427–446. https://doi.org/10.1177/001440290907500403

Dockrell, J., Connelly, V., Lindsay, G., & Mackie, C. (2012). The impact of oral language skills on children's production of written text. In M. Torrance, D. Alamargot, M. Castello, F. Ganier, O. Kruse, A. Mangen, L. Tolchinsky, & L. VanWaes (Eds.), *Learning to write effectively: Current trends in European research* (pp. 39–41). https://doi.org/10.1108/s1572-6304(2012)0000025014

Dockrell, J. E., Ricketts, J., Charman, T., & Lindsay, G. (2014). Exploring writing products in students with language impairments and autism spectrum disorders. *Learning and Instruction, 32*, 81–90. https://doi.org/10.1016/j.learninstruc.2014.01.008

Dockrell, J. E., Connelly, V., & Arfé, B. (2019a). Struggling writers in elementary school: Capturing drivers of performance. *Learning and Instruction, 60*, 75–84. https://doi.org/10.1016/j.learninstruc.2018.11.009

Dockrell, J. E., Ricketts, J., Palikara, O., Charman, T., & Lindsay, G. A. (2019b). What drives educational support for children with developmental language disorder or autism spectrum disorder: Needs, or diagnostic category? *Frontiers in Education, 4*, 29. https://doi.org/10.3389/feduc.2019.00029

Dockrell, J. E., & Connelly, V. (2013). The role of oral language in underpinning the text generation difficulties in children with specific language impairment. *Journal of Research in Reading*. https://doi.org/10.1111/j.1467-9817.2012.01550.x

Duran, P., Malvern, D., Richards, B., & Chipere, N. (2004). Developmental trends in lexical diversity. *Applied Linguistics, 25*(2), 220–242. https://doi.org/10.1093/applin/25.2.220

Fayol, M., Alarmagot, D., & Berninger, V. (2012). *Translation of thought to written text while composing: Advancing theory, knowledge, methods and applications*. Psychology Press/Taylor.

Graham, S. (2019). Changing how writing is taught. *Review of Research in Education, 43*(1), 277–303. https://doi.org/10.3102/0091732X18821125

Graham, S., & Perin, D. (2007). A meta-analysis of writing instruction for adolescent students. *Journal of Educational Psychology, 99*(3), 445–476. https://doi.org/10.1037/0022-0663.99.3.445

Graham, S., & Santangelo, T. (2014). Does spelling instruction make students better spellers, readers, and writers? A meta-analytic review. *Reading and Writing, 27*(9), 1703–1743. https://doi.org/10.1007/s11145-014-9517-0

Graham, S., Berninger, V. W., Abbott, R. D., Abbott, S. P., & Whitaker, D. (1997). Role of mechanics in composing of elementary school students. A new methodological approach. *Journal of Educational Psychology, 89*(1), 170. https://doi.org/10.1037/0022-0663.89.1.170

Graham, S., McKeown, D., Kiuhara, S., & Harris, K. R. (2012). A meta-analysis of writing instruction for students in the elementary grades. *Journal of Educational Psychology, 104*(4), 879–896. https://doi.org/10.1037/a0029185

Graham, S., Hebert, M., Fishman, E., Ray, A. B., & Rouse, A. G. (2020). Do children classified with specific language impairment have a learning disability in writing? A meta-analysis. *Journal of Learning Disabilities, 53*(4), 292–310, 0022219420917338. https://doi.org/10.1177/0022219420917338

Goldfeld, S., Snow, P., Eadie, P., Munro, J., Gold, L., Le, H. N. D. et al. (2017). Classroom Promotion of Oral Language (CPOL): protocol for a cluster randomised controlled trial of a school-based intervention to improve children's literacy outcomes at grade 3, oral language and mental health. *Bmj Open, 7*(11). https://doi.org/10.1136/bmjopen-2017-016574

Hayes, J. R., & Berninger, V. W. (2014). Cognitive processing in writing. In B. Arfé, J. E. Dockrell, & Berninger (Eds.), *Writing development in children with hearing loss, dyslexia or oral language problems: Implications for assessment and instruction* (pp. 3–15). Oxford University Press.

Hebert, M., Kearns, D. M., Hayes, J. B., Bazis, P., & Cooper, S. (2018). Why children with dyslexia struggle with writing and how to help them. *Language Speech and Hearing Services in Schools, 49*(4), 843–863. https://doi.org/10.1044/2018_lshss-dyslc-18-0024

Jeong, H. (2017). Narrative and expository genre effects on students, raters, and performance criteria. *Assessing Writing, 31*, 113–125. https://doi.org/10.1016/j.asw.2016.08.006

Jones, S., Myhill, D., & Bailey, T. (2013). Grammar for writing? An investigation of the effects of contextualised grammar teaching on students' writing. *Reading and Writing, 26*(8), 1241–1263. https://doi.org/10.1007/s11145-012-9416-1

Joye, N., Dockrell, J. E., & Marshall, C. R. (2020). The spelling errors of French and English children with developmental language disorder at the end of primary school. *Frontiers in Psychology, 11*, 1789. https://doi.org/10.3389/fpsyg.2020.01789

Kent, S. C., & Wanzek, J. (2016). The relationship between component skills and writing quality and production across developmental levels: A meta-analysis of the last 25 years. *Review of Educational Research, 86*(2), 570–601. https://doi.org/10.3102/0034654315619491

Kim, Y. S. G. (2016). Direct and mediated effects of language and cognitive skills on comprehension of oral narrative texts (listening comprehension) for children. *Journal of Experimental Child Psychology, 141*, 101–120. https://doi.org/10.1016/j.jecp.2015.08.003

Kim, Y.-S. G., & Schatschneider, C. (2016). Expanding the developmental models of writing: A direct and indirect effects model of developmental writing (DIEW). *Journal of Educational Psychology, 109*, 35. https://doi.org/10.1037/edu0000129

Kim, Y. S. G., & Schatschneider, C. (2017). Expanding the developmental models of writing: A direct and indirect effects model of developmental writing (DIEW). *Journal of Educational Psychology, 109*(1), 35–50. https://doi.org/10.1037/edu0000129

Kim, Y. S., Al Otaiba, S., & Wanzek, J. (2015a). Kindergarten predictors of third grade writing. *Learning and Individual Differences, 37*, 27–37. https://doi.org/10.1016/j.lindif.2014.11.009

Kim, Y. S., Al Otaiba, S., Wanzek, J., & Gatlin, B. (2015b). Toward an understanding of dimensions, predictors, and the gender gap in written composition. *Journal of Educational Psychology, 107*(1), 79–95. https://doi.org/10.1037/a0037210

Koutsoftas, A. D. (2016). Writing process products in intermediate-grade children with and without language-based learning disabilities. *Journal of Speech Language and Hearing Research, 59*(6), 1471–1483. https://doi.org/10.1044/2016_jslhr-l-15-0133

Koutsoftas, A. D., & Gray, S. (2012). Comparison of narrative and expository writing in students with and without language-learning disabilities. *Language, Speech, and Hearing Services in Schools, 43*(4), 395–409. https://doi.org/10.1044/0161-1461(2012/11-0018

Limpo, T., & Alves, R. A. (2018). Tailoring multicomponent writing interventions: Effects of coupling self-regulation and transcription training. *Journal of Learning Disabilities, 51*(4), 381–398. https://doi.org/10.1177/0022219417708170

Llaurado, A., & Dockrell, J. E. (2020). The impact of orthography on text production in three languages: Catalan, English, and Spanish. *Frontiers in Psychology, 11*, 878. https://doi.org/10.3389/fpsyg.2020.00878. PMID: 32581899; PMCID: PMC7283898

Mackie, C. J., Dockrell, J. E., & Lindsay, G. (2013). An evaluation of the written texts of children with SLI: The contributions of oral language, reading and phonological short-term memory. *Reading and Writing, 26*(6), 865–888. https://doi.org/10.1007/s11145-012-9396-1

McBride, C., Pan, D., & Mohseni, F. (2022). Reading and writing words: A cross-linguistic perspective. *Scientific Studies of Reading, 26*(2), 125–138. https://doi.org/10.1080/10888438.2021.1920595

McCutchen, D. (1996). A capacity theory of writing: Working memory in composition. *Educational Psychology Review, 8*(3), 299–325. https://doi.org/10.1007/bf01464076

McCutchen, D., Covill, A., Hoyne, S. H., & Mildes, K. (1994). Individual differences in writing – implications for translating fluency. *Journal of Educational Psychology, 86*(2), https://doi.org/10.1037//0022-0663.86.2.256

McMaster, K. L., Kunkel, A., Shin, J., Jung, P. G., & Lembke, E. (2018). Early writing intervention: A best evidence synthesis. *Journal of Learning Disabilities, 51*(4), 363–380. https://doi.org/10.1177/0022219417708169

Mo, J., McBride, C., & Yip, L. (2018). Identifying the unique role of orthographic working memory in a componential model of Hong Kong kindergarteners' Chinese written spelling. *Reading and Writing, 31*, 1083–1108. https://doi.org/10.1007/s11145-018-9829-6

Olinghouse, N. G., & Graham, S. (2009). The relationship between the discourse knowledge and the writing performance of elementary-grade students. *Journal of Educational Psychology, 101*(1), 37–50. https://doi.org/10.1037/a0013248

Olinghouse, N. G., & Leaird, J. T. (2009). The relationship between measures of vocabulary and narrative writing quality in second- and fourth-grade students. *Reading and Writing, 22*(5), 545–565. https://doi.org/10.1007/s11145-008-9124-z

Olive, T., Favart, M., Beauvais, C., & Beauvais, L. (2009). Children's cognitive effort and fluency in writing: Effects of genre and of handwriting automatisation. *Learning and Instruction, 19*(4), 299–308. https://doi.org/10.1016/j.learninstruc.2008.05.005

Olinghouse, N. G., & Santangelo, T. (2010). Assessing the writing of struggling learners. *Focus on Exceptional Children, 43*(4), 1–27.

Olinghouse, N. G., & Wilson, J. (2013). The Relationship between Vocabulary and Writing Quality in Three Genres. *Reading and Writing: An Interdisciplinary Journal, 26*, 45–65. https://doi.org/10.1007/s11145-012-9392-5

Perfetti, C. A., & Liu, Y. (2005). Orthography to phonology and meaning: Comparisons across and within writing systems. *Reading and Writing, 18*, 193–210. https://doi.org/10.1007/s11145-004-2344-y

Prunty, M. M., Barnett, A. L., Wilmut, K., & Plumb, M. S. (2016). The impact of handwriting difficulties on compositional quality in children with developmental coordination disorder. *British Journal of Occupational Therapy, 79*(10), 591–597. https://doi.org/10.1177/0308022616650903

Puranik, C. S., Lombardino, L. J., & Altmann, L. J. P. (2008). Assessing the microstructure of written language using a retelling paradigm. *American Journal of Speech-Language Pathology, 17*(2), 107–120.

Ravid, D. (2001). Learning to spell in Hebrew: Phonological and morphological factors. *Reading and Writing, 14*, 459–485. https://doi.org/10.1023/A:1011192806656

Reilly, J., Zamora, A., & McGivern, R. F. (2005). Acquiring perspective in English: The development of stance. *Journal of Pragmatics, 37*(2), 185–208. https://doi.org/10.1016/j.pragma.2004.08.010

Saddler, B., & Graham, S. (2005). The effects of peer-assisted sentence-combining instruction on the writing performance of more and less skilled young writers. *Journal of Educational Psychology, 97*(1), 43–54. https://doi.org/10.1037/0022-0663.97.1.43

Santangelo, T., & Graham, S. (2016). A comprehensive meta-analysis of handwriting instruction. *Educational Psychology Review, 28*(2), 225–265. https://doi.org/10.1007/s10648-015-9335-1

Savage, R., Kozakewich, M., Genesee, F., Erdos, C., & Haigh, C. (2017). Predicting writing development in dual language instructional contexts: Exploring cross-linguistic relationships. *Developmental Science, 20*(1), https://doi.org/10.1111/desc.12406

Scott, C. M., & Windsor, J. L. (2000). General language performance measures in spoken and written narrative and expository discourse of school-age children with language learning disabilities. *Journal of speech, language, and hearing research, 43*(2), 324–39. https://doi.org/10.1044/jslhr.4302.324

Shahar-Yames, D., & Share, D. L. (2008). Spelling as a self-teaching mechanism in orthographic learning. *Journal of Research in Reading, 31*(1), 22–39. https://doi.org/10.1111/j.1467-9817.2007.00359.x

Skar, G. B., Lei, P. W., Graham, S., Aasen, A. J., Johansen, M. B., & Kvistad, A. H. (2022). Handwriting fluency and the quality of primary grade students' writing. *Reading and Writing, 35*(2), 509–538. https://doi.org/10.1007/s11145-021-10185-y

Spencer, T. D., & Petersen, D. B. (2018). Bridging oral and written language: An oral narrative language intervention study with writing outcomes. *Language Speech and Hearing Services in Schools, 49*(3), 569–581. https://doi.org/10.1044/2018_lshss-17-0030

Stuart, N. J., Connelly, V., & Dockrell, J. E. (2020). Written verb use and diversity in children with Developmental Language Disorder: Stepping stones to academic writing. *Reading and Writing, 33*, 67–96. https://doi.org/10.1007/s11145-019-09978-z

Sumner, E., Connelly, V., & Barnett, A. L. (2016). The influence of spelling ability on vocabulary choices when writing for children with dyslexia. *Journal of Learning Disabilities, 49*(3), 293–304. https://doi.org/10.1177/0022219414552018

Swanson, H. L. (1996). Individual and age-related differences in children's working memory. *Memory & Cognition, 24*(1), 70–82

Wagner, R. K., Puranik, C. S., Foorman, B., Foster, E., Wilson, L. G., Tschinkel, E., & Kantor, P. T. (2011). Modeling the development of written language. *Reading and Writing, 24*(2), 203–220. https://doi.org/10.1007/s11145-010-9266-7

Wolf, B., Abbott, R. D., & Berninger, V. W. (2017). Effective beginning handwriting instruction: Multi-modal, consistent format for 2 years, and linked to spelling and composing. *Reading and Writing, 30*(2), 299–317. https://doi.org/10.1007/s11145-016-9674-4

Yu, G. (2010). Lexical diversity in writing and speaking task performances. *Applied Linguistics, 31*(2), 236–259. https://doi.org/10.1093/applin/amp024

Zajic, M. C., & Wilson, S. E. (2020). Writing research involving children with autism spectrum disorder without a co-occurring intellectual disability: A systematic review using a language domains and mediational systems framework. *Research in Autism Spectrum Disorders, 70*, 101471. https://doi.org/10.1016/j.rasd.2019.101471

Zoccolotti, P., De Luca, M., Marinelli, C. V., & Spinelli, D. (2014). Modeling individual differences in text reading fluency: A different pattern of predictors for typically developing and dyslexic readers. *Frontiers in Psychology, 5*. https://doi.org/10.3389/fpsyg.2014.01374

Part IV
Writing Practices in Different Social Environments

Chapter 11
Nurturing Writing of Narrative and Expository Texts at the Preschool Level

Ainat Guberman

11.1 Introduction

The aim of this chapter is to present means through which early childhood educators can nurture the development of young children's literacy – particularly writing – in ways that build on their natural interests and support their social, emotional, and cognitive development. The chapter describes how children learn to create both narrative and expository texts by combining oral and written language with various forms of graphic representations, such as tables and drawings. The texts children produce enable them to express ideas, to preserve information over time, and to share it with others. The use of written language is gradually incorporated into a broader toolkit of meaning-making resources that will potentially be utilized and enriched throughout their lives as members of a literate society.

The chapter begins with a short introduction to the terms – literacy, texts, and genres. Then, we discuss how writing instruction in early childhood derives from the ecological constructivist approach, which views human learning as developing in the context of social and cultural activities. During these activities, educators can expand young children's world knowledge and expose them to a broad vocabulary and to a wide range of language genres prevalent in literate discourse. In such contexts, children can acquire writing skills that will empower their ability to participate in society and to achieve their goals.

The second and third sections of the chapter provide examples of such activities. The second section presents children's production of both spoken and written narratives, and the third section provides examples of the production of two types of expository texts: documentation of biological observations and comparisons of the

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characteristics of different countries by graphic means. Both sections show how text production in diverse genres improves early writing skills and how the improvement in writing skills influences and enhances the use of these genres. The chapter concludes with a discussion of the broader theoretical and practical implications of the examples and suggests directions for further research.

11.2 Literacy, Texts, and Genres

UNESCO associates literacy with written language: "Literacy is the ability to identify, understand, interpret, create, communicate and compute using printed and written materials associated with varying contexts…" (UNESCO, n.d.). Other definitions associate literacy with communication, in the broad sense of the term: "Literacy… implies the ability to communicate and connect effectively with others in an appropriate and creative way" (Schola Europaea, 2018, p. 9). Nonetheless, in both conceptualizations of literacy, texts play a central role. Texts are semiotically coherent entities designed by their producers to communicate meaning to audiences in specific cultural and social contexts (Bakhtin, 1986; Kress, 2015). Texts are made up of different meaning-making resources, such as spoken and written language, images, mathematical notations, as well as facial expressions. Text producers choose from a multitude of meaning-making resources – those that are particularly suitable for conveying the meanings they wish to communicate while taking into account the efforts required for producing and interpreting those resources (Kress, 2015). For example, emoji are resources suitable for conveying emotions and are easy to copy and use, but some people may find them very difficult to interpret, particularly across social and cultural boundaries.

Bezemer and Kress (2016) believe that all meaning-making resources are "potentially of equal semiotic standing" (p. 15). Nonetheless, graphic representations have had, and continue to have, a central role in literate societies. Graphic representations are two-dimensional symbols that include written language, mathematical notations, maps, photographs, illustrations, tables, and graphs. Graphic texts enable the retention of large amounts of information over long periods, support information processing, and serve as excellent means of communication, transcending cultural, geographical, and time distances. Therefore, the emergence of graphic texts has changed human history (Donald, 1991; Olson, 1994). The printing revolution accelerated the use of graphic texts and increased their impacts on every aspect of those cultures that were exposed to printing. The high degree of accessibility to information and communications technologies (ICT) has further intensified their impact.

A text's message is derived from the meaning-making resources its producer(s) choose, as well as from their layout. For example, newspapers can express an opinion through written arguments, catchy headlines, graphs, photographs, or cartoons. A caption adds information to the overall meaning that a photograph does not convey and vice versa. Editors can emphasize the importance and urgency they attribute to the point in question by choosing emotionally loaded words, colored photographs, and large size fonts and by placing them on the front page. Together, those

meaning-making means and their layout form a "multimodal ensemble," a unique text that has a meaning that none of its individual components can convey in its entirety (Bezemer & Kress, 2016; Kress & van Leeuwen, 2006; Unsworth, 2006).

Texts that are designed to achieve similar communicative goals in similar social-cultural contexts share recognizable similarities and are called a text genre. Typical text genre forms include content, style, and structure (Bakhtin, 1986). For instance, recipes are texts that share the goal of instructing readers how to prepare food. Although each recipe is a unique text, they all share the same genre. Recipes may differ from each other in the type of food they deal with and the ingredients, cooking methods, language, and nonverbal representations they include. Yet, they all begin with a list of ingredients and cooking tools, followed by a list of instructions. Illustrations, icons, and photographs often support the messages that the verbal language attempts to convey. Readers expect to find those typical genre characteristics in the recipes they read and use them to interpret such texts. Genres are enacted each time they are used and are adapted to the communicators' needs in each specific interaction. Over time, genres are consolidated through repeated use and evolve as times change (Bakhtin, 1986). To illustrate, the letter genre has characteristic content, style, and structure that developed in specific social, cultural, material, and historical contexts. Letters sent to the Pharaohs in Al-Amarna on clay tablets in the fourteenth century BC are very different from formal letters of today. Nonetheless, both contain the names and titles of the addressor and addressee, formal opening and closing statements, and a message that includes a report or a request. The typical form and style conventions help the addressees comprehend the addressors' communicative intentions.

Bakhtin (1986) draws a distinction between primary and secondary genres. Primary genres develop in the context of daily interactions among individuals, whereas secondary genres develop in complex contexts of culturally mediated communication such as literature and science. This chapter deals with two types of secondary genres: narratives and expository texts. Narratives are associated with Bruner's (1986) narrative thinking mode that uses story-like constructions to explain human behavior and emotions in social contexts. They evolved from spoken narratives used in conversations to relate to events. In contrast, expository texts are associated with the paradigmatic thinking mode that is formal and logical. They are typical of academic, technological, and scientific contexts and evolved from oral explanations, descriptions, and arguments (Blum-Kulka et al., 2004). Children need to acquire both types of secondary genres in order to fully participate in the cultural life of literary societies.

11.3 Writing Instruction

Writing instruction is a complex task that involves combining multiple skills and different areas of knowledge (Scarborough, 2001; Snow et al., 1998). Some of these areas have a relatively narrow scope and are easier to master, whereas others are broader and require lifelong learning. According to Snow et al. (1998), letter

recognition and production, developing phonological awareness, and learning the grapheme-phoneme correspondences are relatively simple, even though they require extensive efforts in preschool and the first 2 years of elementary school. In contrast, acquisition of world knowledge and vocabulary and interpreting and producing secondary text genres are challenging at all levels of education.

Contexts and vocabulary are strongly intertwined. Some words appear mainly in literary or professional contexts and may be unfamiliar to those who are less involved in them (Olson, 1994). In order to read and produce texts associated with such contexts, the relevant vocabulary, as well as the concepts they represent, has to be acquired. Thus, vocabulary enrichment also involves the acquisition of world knowledge. Both vocabulary size and world knowledge are strong predictors of academic success (Hoff, 2006; Murnane et al., 2012).

Using texts as a means of communication can transcend geographic and cultural distances, as well as historical periods. This can be achieved when the texts are decontextualized, including all the necessary information for their interpretation in an orderly and clear manner (Sweet & Snow, 2003). The production of decontextualized, cohesive, and coherent texts is a significant challenge for both children and adults. Much of the difficulty stems from the differences between spoken and written language. Whereas face-to-face daily interactions are highly dependent on shared knowledge between the interlocutors and on the immediate context and therefore do not require clarifications from the speaker, written texts of secondary genres are designed to convey messages without these external support systems (Sweet & Snow, 2003). When producing such texts, authors first need to adopt the readers' perspective in order to successfully predict what knowledge they share and what needs to be supplied and to present their message in a well-organized manner (Donaldson, 1978; Rijlaarsdam et al., 2008). As they write, authors need to pay attention to a multitude of aspects such as their choice of words, the text structure, the genre conventions, and readers' expectations. Such considerations involve metacognitive and metatextual processes that over time result in intellectual growth (Bazerman, 2009).

We believe that writing instruction should address all aspects of text production simultaneously, from early childhood and onward, instead of waiting until children acquire the basics of letter production and the grapheme-phoneme correspondences (Castles et al., 2018). In countries that devote time to learning how to read and write before children use reading and writing for learning, students reach the fourth grade with insufficient vocabulary, world knowledge, and acquaintance with text genres that are necessary for further learning. This phenomenon is particularly severe among students of lower socioeconomic strata (Chall et al., 1990; Duke & Block, 2012; Murnane et al., 2012; Snow, 2017).

Our proposal for addressing writing instruction derives from the ecological constructivism approach. According to this approach, human learning occurs when participants who have different skills, experiences, and perspectives collaborate in significant activities that take place in specific social-cultural contexts (Bronfenbrenner, 1979; Vygotsky, 1978). Examples of such activities include preparing a recipe for a favorite dish or producing a list of equipment for a field trip.

The more children are actively engaged in the interactions surrounding the activities, the more they gain world knowledge, and the larger the vocabulary they acquire. In such interactions, children are exposed to different texts that support the actions they wish to perform. They learn about the meaning-making resources used to create those texts, their structure, and how they contribute to the messages those texts convey (Kress, 2015). Such learning situations serve to empower the children, who gradually become effective and independent participants in social-cultural activities. This in turn increases their motivation to learn and the likelihood that they will use the knowledge they acquired in additional situations (Bruner, 1986; Ochs, 1996).

Educators have the role of advocating for the use of texts as cultural tools and thus help the children use relevant texts for the appropriate occasions and to experience their usefulness. Conversations between peers are also invaluable resources for learning. Peers can share their knowledge and assist each other, while they collaborate in performing different activities. In the case of disagreement, their relatively equal status enables them to discuss the issues at stake, try to convince each other, and reach agreement based on a shared understanding, rather than on submitting to adult authority (Cekaite et al., 2014). Such conversations expose children to the textual characteristics of scholastic texts, in which explanations, clarifications, and argumentations are prevalent.

Bruner (1960) believed that curricula should be "spiral," i.e., they should consist of repetitions in increasing levels of difficulty of fundamental principles, concepts, or values. Each level should build on the previous ones, expanding and deepening the knowledge students have already acquired, improving their skills, and connecting them with other areas. Such a learning process begins with manageable tasks and easy-to-comprehend ideas and results in students having abstract and comprehensive knowledge and high level of proficiency in the acquired skills. Drawing on Bruner's spiral curriculum, we believe that when children engage with the same subjects from different perspectives, their knowledge becomes broader and more thorough. As their knowledge and skills improve, their sense of self-competence strengthens, and their motivation to use and produce texts increases. An added value from a pedagogic point of view is that educators in such situations can monitor the children's progress as they work and plan future learning activities without raising their anxiety over issues of achievement.

11.4 Storytelling as a Triger for Writing

Bruner (1986) believed that there are two basic modes of thinking: narrative and paradigmatic. The narrative mode attempts to understand human motivations and interactions, whereas the paradigmatic mode is logical and abstract. Stories are associated with the narrative mode. A basic definition of the term "story" is a written or spoken text that relates to one or more events (Prince, 2003; Rimmon-Keynan, 1983). A story is a universal genre that begins at an early stage in the development of children's communication patterns and is acquired naturally in the process of

socialization. In the mature state, stories are aesthetic productions with the typical components of context (orientation), a complication that prompts a series of events, resolution, evaluation that reveals the narrator's position in relation to the story, and a coda that relates the story to the present (Labov & Waletzky, 1967). Although the development of storytelling can be viewed as part of children's literacy acquisition, the emphasis in this chapter is that storytelling can be used as a vehicle to promote initial writing.

11.4.1 Dictating Stories

How can we encourage children to initiate storytelling? This topic has received much attention in the literature. Many approaches have been proposed and implemented. Berman and Slobin (1994) extensively studied and promoted the approach in which pictures are used as stimulants for stories; McCabe and Peterson (1991) made use of questions to encourage children's storytelling ("Yesterday I lost a special present I received for my birthday. It made me very sad. Has something like this ever happened to you?"). This chapter focuses on the approach of Nicolopoulou (1996, 2002) that is based on encouraging children to initiate and dictate stories to the teacher in the preschool. In her studies, Nicolopoulou describes a pedagogical method practiced in the preschool she had observed, in which children dictated stories to the teachers during the day and acted them out for their friends at the end of the day. The current study applied the dictation process within a group activity.

Oral stories have unique characteristics that differ from other types of oral dialogue. In children's stories, the development of the use of various characteristics of literate and "extended" texts, such as "high" language registers, textual continuity, complex expressions, clarifications, clear and explicit formulations, as well as poetic expressions and the use of typical story structures (Labov, 1972), can be traced over time. Thus, the act of dictating a story encourages the children to use richer language and more expanded and extended texts (Wells, 1981) that characterize literate discourse. The ability to use such "book echoing" language (Blum-Kulka & Hamo, 2011) is developed through exposing children to books and is reinforced when the children create their own extended texts. Thus, the experience of children with storytelling creates an opportunity not only to share things that are significant to them but also to do this while using more sophisticated language and thereby advance and develop their language abilities.

As mentioned, the dictation process took place within a group activity, an important dimension of this process, in which friends dictate stories and draw pictures side by side. This enables social interaction to play a part in the process of meaning-making (Vygotsky, 1978). It encourages the children to tell stories and to take ideas from each other in addition to developing their own ideas.

Nicolopoulou's (1996) study demonstrates the mutual influence children had while observing and listening to their peers. In this case study too, there were indications that the children's storytelling ability had developed over time, as a result of

both their own experience and that of their classmates. Over time, a gradual development of coherent texts occurred, which included "high" language registers, complex expressions, clarifications within the text, poetic expressions, and a clear preference for the creation of longer stories. In addition, the group setting had an influence on the children's degree of participation. The storytelling process is a demanding task, for children and adults alike. Storytelling requires concentration and effort, and some children found it difficult to start dictating and postponed it for a while ("I need to think about it some more"). The group activity enabled children to participate in the activity, listen to their friends' stories, and decide when they too were ready to dictate a story of their own.

In the current case study, Nicolopoulou's approach was applied, in which the children do not receive any guidance or comments on the construction of their texts. Each dictated story is accepted and welcomed. The teacher gives it her full attention and writes it down verbatim. The absence of specific guidance enables the children to spontaneously focus on topics of their interest.

It is important to note that already at the story dictation stage, the children are exposed and become more phonologically aware of words, letters, syllables, and their significance, and this strengthens their awareness of the meaning of the graphic symbols that comprise words. For example, children who dictated stories understood that they should do so in a slow and measured pace, in order to enable the teacher to put their story on paper, and at their initiative, they adopted a method of slow dictation that emphasizes every syllable of the word separately ("The e-le-phant shou-ted a beau-ti-ful song"[1]). This strengthened their phonological awareness and their sensitivity to components of words and to the division of words into syllables.

11.4.2 Writing Stories

The second step of the process was to encourage and assist children to write their stories, despite the fact that they have not yet been formally taught to write. The children are exposed to letters and words in their daily preschool routine. They copy letters and words and become familiar with the alphabet. However, they are not expected to write sentences that convey meaning. In the activity described in this chapter, the children were asked to take the next step and to write a story. This assignment confronted the children with the challenge of using written language: identifying letters and using them in their efforts to write. This approach is based on the understanding that an effective way for children to learn to write is through early attempts to engage in writing on their own (Fox, 2008). The outcome will often be scribbles and partial letters, but the very effort to transcribe spoken words to signs on paper stimulates their understanding of the substance of the writing process and

[1] This and other examples in the chapter are translated from the Hebrew.

provides them with an opportunity to become acquainted with the link between phonological units and graphemes.

Most surprisingly, children believe that they know how to write, even though they do not necessarily think that they know how to read (Fox, 2008). This perspective is consistent with the approach in the educational literature (Teubal & Guberman, 2014) that recommends exposing preschool children to a wide range of writing practices, using multiple techniques in which the children try to convey various kinds of messages on paper. However, skills that are traditionally related to the written word, such as identifying and writing single unrelated words, have a central role in many preschool activities and, as was mentioned in the introduction to this chapter, place excessive emphasis on the development of decoding and deciphering skills (McCabe, 2013). Such an emphasis is likely to encourage the reading of words without understanding their significance in a broader text. In a number of studies, this phenomenon has been identified to be negatively correlated with success in school (Chall et al., 1990; Gee, 2012; Oakhill et al., 2019; Spaull & Pretorius, 2019).

The children were enthusiastic, but also concerned, about the challenge of writing. The act of writing is not a natural activity for them (Smith, 1987). It requires a great deal of effort and commitment on their part and can often be frustrating. Thus, various methods were offered to assist the children in addressing this challenge. They were introduced to the letter ruler, which presents all the letters of the alphabet clearly, supported by pictures whose first syllable represents each letter, and in addition, the teacher helped them learn to use the letter ruler (Fig. 11.1). The teacher pointed to the required letter and, when necessary, demonstrated how to transcribe it. Children who participated in the activity supported each other by listening, reacting, asking questions, and copying (Fig. 11.2). The teacher did not comment on the correctness of the writing such as spelling mistakes, connected series of words, detached syllables within the word, or inconsistent use of letters. This will be addressed as the children progress to higher grades, but not at this early stage of initial efforts to write.

A third step in the process to help the children address the challenge was to integrate dictation with writing. In this activity, the children often threw themselves straight into the writing process, but withdrew after a while, feeling overwhelmed by the experience. In these cases, they were offered the choice to dictate entire phrases to the teacher for them to copy later on or alternatively to go back to the dictation phase and to dictate to her the continuation of the story that they had started to write themselves. The following example demonstrates the complexity of the transition from the spoken to the written word. Tamar made a concentrated effort to address the challenge she was presented. She made use of the letter ruler and consulted with the teacher ("t… t… tr… ah! here it is…"). Eventually, she began to write a complex story "trwr trs andwr sd tl km" (There were trees and they were sad until they came). She then requested that the teacher read what she had managed to write, and subsequently attempted to continue writing the story, but found it too difficult to do so. The teacher suggested that she dictate the continuation of the story: "There were trees and they were sad until a herd of cattle came and they gave birth to a lot of children."

Fig. 11.1 The writing challenge

The children also engaged in various writing tasks that they themselves initiated spontaneously, in order to enhance their ability to master their writing skills. For example, while waiting for their turn to dictate a story, some of the children "decorated" the pages they had dictated earlier by copying words from the letter ruler, unrelated to their new story, and distributing them in various places on the page. These activities were self-chosen, and they reflect the children's desire to teach themselves the skills needed in order to be able to write.

The effort to write brought about a shift in the nature of the children's stories. They became shorter, with less complex sentences, fewer specific connectives (such as "when" or "because," instead of "and"), and minor reference to people's inner worlds (Smith, 1987). The children's focus of attention was diverted from developing the stories to the technical aspects of writing: identifying the appropriate letters, copying them, and constructing meaningful words.

Writing and "writing-like activities" provide opportunities to practice and improve the children's literacy skills. In this attempt to introduce writing, an effort was made to mobilize storytelling and to use it as a vehicle, not only to develop spoken language but also to promote writing.

Fig. 11.2 A writing group activity in the preschool

11.5 Producing Expository Texts

Expository texts aim to influence the conceptualizations the addressees have about the topics at hand. Typical expository texts include definitions, records of observations, descriptions, explanations, and argumentations. Some of their characteristics are challenging when compared to other types of written texts (Schleppegrell, 2001; Snow & Uccelli, 2009). In this section, we will present the characteristics of expository texts and the challenges involved in their interpretation and production. We will first explain what nonverbal representations are and then provide two examples showing how young children can participate in expository text production by using verbal and nonverbal representations.

11.5.1 The Characteristics of Expository Texts

Expository texts represent and communicate ideas associated with the paradigmatic thinking mode. In order to convey accurate messages, producers of expository texts often use technical terms that non-experts are not familiar with. However, such terms render the texts less comprehensible and may even be misleading, when certain words have additional meanings in everyday language. For example, elementary school students often misinterpret the meaning of the term "angle size" as the length of the segments that represent the angle's rays (Mitchelmore, 1998).

Expository texts tend to be denser than other forms of written language, i.e., they include more content words per sentence in comparison to other text forms (Schleppegrell, 2001; Snow & Uccelli, 2009). In addition, they often evoke a static overtone emanating from their generalized and abstract topics, as well as from their style. Grammatically, the passive voice and nominalization (rephrasing verbs and adjectives as nouns) produce the static effect. Thus, for example, expository texts emphasize contents of arguments (nominalization of argue) and decisions that were made (passive voice) while deemphasizing the actors who were involved in those arguments and how their actions shaped the final decisions. The static nature of such texts encourages prolonged reflection and analysis, whereas an active style could have resulted in rapid changes of readers' focus of attention, in accordance with the described actions and events. The static overtone also supports the impression that the text is neutral, objective, and permanent (Halliday & Martin, 1993; Livnat, 2012; Snow & Uccelli, 2009).

Expository text production is particularly challenging. In an experimental study, Berman and Nir-Sagiv (2007) asked students of different age groups, from fourth graders to adults, to write a narrative about a conflict they had experienced and to produce an expository text about conflicts between people. They found that although the expository texts elicited more complex morphological and grammatical structures than narratives, the overall quality of their discourse construction was lower. This conclusion was true of all of the participants' age groups. In the following, we will show how young children can produce coherent and cohesive expository texts using both verbal and nonverbal representations.

11.6 Nonverbal Graphic Representations

Nonverbal graphic representations are drawings, photographs, maps, tables, etc. Each of these meaning-making modes has its own genres, such as geological, political, or synoptic maps, and embodies specific affordances that make them particularly suitable to convey certain meanings. For example, schematic illustrations are useful in delineating structural composition, whereas bar graphs are a convenient means of representing quantitative comparisons. Interpreting some nonverbal representations, such as some photographs of daily objects, can be self-evident to most people, whereas interpreting X-ray images requires extensive learning in order to properly interpret them. Today, nonverbal representations are becoming increasingly prevalent, and the importance of learning about them is subsequently increasing (Kress & van Leeuwen, 2006). Furthermore, nonverbal graphic representations are often combined with written language into multimodal texts. In these cases, nonverbal representations convey some of the texts' meanings, and interpreting them becomes an integral part of interpreting the whole text.

In the early stages of literacy acquisition, nonverbal representations can be used to support text production and interpretation due to their relative accessibility to young children (Teubal & Guberman, 2014). As children's mastery of written

language increases, they can rely more heavily on writing when choosing among different meaning-making resources for their texts.

11.6.1 A World of Pests in a Spice Garden

Scientific illustration is one of the main genres of nonverbal graphic representation, and it serves of purpose of depicting an item as accurately as possible (Mikel, 2007). In comparison to photographs, scientific illustrations are more suitable for delineating structural aspects and for distinguishing between essential characteristics and incidental variations of color, shape, and size. Due to these affordances, scientific illustrations often appear in scientific texts conveying information that would have been unclear had other meaning-making resources been used. Since drawing requires careful observation and identification of significant characteristics, drawings have formed the basis for the categorization of biological species (Olson, 1994; Wilson, 2003). However, producing adequate scientific illustrations requires expertise in the relevant disciplinary field, in addition to drawing skills. In a study of fourth graders, they were asked to produce an illustration representing a layer of onion cells that they watched through a microscope. One student drew the cell walls as if they were interconnected wavy threads, another drew a brick wall, and others depicted the air bubbles they saw on the glass slide (Jewitt et al., 2001).

The aim of scientific drawings in early childhood is that children be inspired by a sense of wonder: while often investigating something supposedly familiar, they discover a whole new world that was hitherto concealed right under their noses (Teubal, 2003). A conversation about the illustrations enables children to acquire new vocabulary and to verbally express the knowledge they acquired visually and kinesthetically. Brooks (2003), for instance, describes how a drawing of a butterfly chrysalis led children to ask questions and acquire knowledge about larval development and the relevant vocabulary.

The preschool children who produced the drawings below (Fig. 11.3) were given a magnifying glass to watch the spice herbs that grew in their garden. They were surprised to see a multitude of pests that were feeding on the leaves. The children drew illustrations of the diverse types of pests they found and wrote some of the pests' names.

The girl who produced the illustration in Fig. 11.3 drew (from left to right) a snail, an unidentified plant with snails, a sage plant (with aphids on the bottom leaves), a leaf with aphids, and a beetle (probably a ladybug). She identified the pictures with words (she wrote in Hebrew): "aphids," "sage," and "beetle." The girl's drawing shows that she had acquired knowledge about different species of pests and technical, rare vocabulary.

On another occasion, the children decided to follow the development of swallowtail butterfly larvae more closely and took photographs of different phases of their development. After the children observed a complete life cycle, each child produced a nonverbal graphic text to describe the cycle (Fig. 11.4). The text's layout presents the different stages clearly as well as their cyclic nature.

Fig. 11.3 Pests in an herb garden

Fig. 11.4 The life cycle of the swallowtail butterfly

11.7 Producing a Table to Gather Information and Compare Between Countries

A table is a nonverbal graphic format that is useful for recording and organizing large amounts of data (Wainer, 1992). It is particularly suitable for presenting comparisons, since columns and rows accentuate shared characteristics of the data they contain (Tversky, 2001). Table production requires systematic work and logical reasoning, and when the shared characteristics are abstract, it may also encourage abstract thinking. All of these are associated with the paradigmatic ways of thinking.

Israeli preschoolers who were learning about countries around the globe produced the table showed in Fig. 11.5. They learned about Mexico and the Netherlands and were eager to find out in what ways they were similar to or different from Israel. Each child contributed a piece of information. The teacher drew an organizing table, and the children placed representations of the information they had collected in the cells.

In the table they produced, each column represents a country: Israel is on the left, Mexico is in the center, and the Netherlands is on the right. The first row presents the national flags of each country; the second row shows famous artists, Zeev Engelmayer, an Israeli cartoonist, Frida Kahlo from Mexico, and van Gogh from the

Fig. 11.5 Country comparison tables

Netherlands; and the third row shows typical plants in each country: poppy and chrysanthemum in Israel, cactus in Mexico, and tulip in the Netherlands. Each of the drawings has a corresponding written description in Hebrew. Favorite foods appear in the fourth row. Israel's food is *falafel*. The children drew the food along with the typical way of consuming it: stuffed into a pita bread that is held by hand. Mexican food is *tortia*, *tequila* (presented in writing only), and chili peppers (presented in drawing only). The Dutch food is fried potatoes, mayonnaise, and chocolate sprinkles (*hagelslag*). The last row represents landscapes: both Israel and Mexico have deserts. The children wrote the name of Israel's southern desert (*Negev*) and used the written word *desert* to describe Mexico. The Netherlands' landscape is *water*. While producing these representations, the children used both drawings and written language to the same degree and experienced the affordances of each mode for conveying information. Drawings are particularly suitable for representing shapes (including van Gogh's artistic style), whereas writing accurately represents names.

The table format enabled the children to present a large amount of information in a concise manner. The teacher hung the table on the preschool's wall, to support children's memory and sense of ownership of the information they had gathered. In addition, the table can be extended to include additional countries, and thus such a repetition would accentuate abstract aspects that are relevant for describing and comparing counties: physical geography, flora, fauna, and culture. By learning about specific countries and producing the table, the children have acquired world knowledge and relevant vocabulary. The teacher laid the foundations for further studies of geography. Finally, having become acquainted with the table format, children can rely on the similarity between the structure of tables and that of the expository texts containing comparisons, and they can more easily use such tables as graphic organizers of their text summaries. Such practices help to increase the reading comprehension of all students, but are particularly helpful for students with learning disabilities (Dexter & Hughes, 2011; Jiang & Grabe, 2007).

11.8 Final Remarks

This chapter focuses on how children develop their abilities to produce both narrative and graphic texts. Both involve a prolonged process that begins in early childhood and continues in all later stages of life. The examples provided in this chapter show that writing instruction could begin in preschool, in an integrative, simultaneous manner which also includes acquiring relevant vocabulary, appropriating different text genres in accordance with the writer's goals and using different meaning-making resources, as well as learning about the world. This chapter therefore supports the simultaneous approach to writing instruction and exemplifies its feasibility. There is no need to wait until young children master the basics of writing before they start using it for learning. On the contrary, children are eager to acquire writing when they realize how useful writing is for the social-cultural activities in

which they can participate. Writing instruction in preschools (and beyond) should be student centered and highly motivating and encourage collaboration among peers as they are engaged in project-based learning. The chapter addresses how the use of narratives is a very effective context for developing writing skills. It begins with children's dictating stories and continues with various ways of encouraging them to write their stories.

The children who produced the texts presented in this chapter incorporated in verbal and nonverbal representations to varying degrees. The option of using nonverbal representations instead of written language is not necessarily limited to young children. In special education, the use of images in augmentative and alternative communication systems as well as technology-supported instructional tools is well documented (Cheng & Lai, 2020; Elsahar et al., 2019; O'Neill et al., 2018). Nonverbal representations can also enable children of immigrant families to express their ideas and thus to develop their literacy skills. For example, immigrant children produced multimodal electronic books in which they combined their spoken and written languages with drawings, photographs, and video clips (Ntelioglou et al., 2014; Pacheco & Miller, 2016). In Israel, preschool children of immigrant families produced together with their preschool staff a Hebrew-Russian dictionary with drawings that supported child-staff-family communication (Guberman, 2020). Nonverbal representations are not only substitutes for written language but are also significant additional meaning-making resources, and both require learning and skill development. This multimodal approach to text production should therefore be integrated at all educational levels. Indeed, the prevalence of multimodal texts is increasing both in academic and in day-to-day interactions.

The limitations of the studies reviewed in this chapter are their small-scale and case study nature. In addition, they were all conducted in Israel. Future research should follow how groups of children develop abilities to produce graphic texts and to develop writing skills in a variety of social and cultural contexts longitudinally.

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References

Bakhtin, M. M. (1986). The problem of speech genres. In C. Emerson & M. Holquist (Eds.), *Speech genres and other late essays* (pp. 60–102). University of Texas Press.

Bazerman, C. (2009). Genre and cognitive development: Beyond writing to learn. In C. Bazerman, C. Bonini, & D. Figueiredo (Eds.), *Genre in a changing world* (pp. 279–294). The WAC Clearinghouse.

Berman, R. A., & Nir-Sagiv, B. (2007). Comparing narrative and expository text construction across adolescence: A developmental paradox. *Discourse Processes, 43*(2), 79–120.

Berman, R., & Slobin, D. (Eds.). (1994). *Relating events in narrative: A crosslinguistic developmental study*. Lawrence Erlbaum Associates.

Bezemer, J., & Kress, G. (2016). *Multimodality, learning and communication*. Routledge.
Blum-Kulka, S., & Hamo, M. (2011). Discourse pragmatics. *Discourse Studies, 2*(1), 143–164.
Blum-Kulka, S., Huck-Taglicht, D., & Avni, H. (2004). The social and discursive spectrum of peer talk. *Discourse Studies, 6*(3), 307–328.
Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.
Brooks, M. (2003, September 1–6). *Drawing to learn*. Beyond the Journal – Young Children on the Web. http://www.naeyc.org/files/yc/file/200309/DrawingtoLearn.pdf
Bruner, J. S. (1960). *The process of education*. Harvard University Press.
Bruner, J. S. (1986). *Actual minds, possible worlds*. Harvard University Press.
Castles, A., Rastle, K., & Nation, K. (2018). Ending the reading wars: Reading acquisition from novice to expert. *Psychological Science in the Public Interest, 19*(1), 5–51.
Cekaite, A., Blum-Kulka, S., Grøver, V., & Teubal, E. (Eds.). (2014). *Children's peer talk: Learning from each other*. Cambridge University Press.
Chall, J. S., Jacobs, V. A., & Baldwin, L. E. (1990). *The reading crisis: Why poor children fall behind*. Harvard University Press.
Cheng, S. C., & Lai, C. L. (2020). Facilitating learning for students with special needs: A review of technology-supported special education studies. *Journal of Computers in Education, 7*(2), 131–153.
Dexter, D. D., & Hughes, C. A. (2011). Graphic organizers and students with learning disabilities: A meta-analysis. *Learning Disability Quarterly, 34*(1), 51–72.
Donald, M. (1991). *Origins of the modern mind: Three stages in the evolution of culture and cognition*. Harvard University Press.
Donaldson, M. (1978). *Children's minds*. Fontana/Collins.
Duke, N. K., & Block, M. K. (2012). Improving reading in the primary grades. *The Future of Children, 22*(2), 55–72.
Elsahar, Y., Hu, S., Bouazza-Marouf, K., Kerr, D., & Mansor, A. (2019). Augmentative and alternative communication (AAC) advances: A review of configurations for individuals with a speech disability. *Sensors, 19*(8), 1–24. https://doi.org/10.3390/s19081911
Fox, M. (2008). *Reading magic: Why reading aloud to our children will change their lives forever*. Harvest Books.
Gee, J. P. (2012). *Situated language and learning: A critique of traditional schooling*. Routledge.
Guberman, A. (2020). Introducing young children to expository texts through nonverbal representations. *Cuaderno del Centro de Estudios de Diseño y Comunicación, 98*, 91–112.
Halliday, M. A. K., & Martin, J. R. (1993). *Writing science: Literacy and discursive power*. University of Pittsburgh Press.
Hoff, E. (2006). How social contexts support and shape language development. *Developmental Review, 26*, 55–88.
Jewitt, C., Kress, G., Ogborn, J., & Tsatsarelis, C. (2001). Exploring learning through visual, actional and linguistic communication: The multimodal environment of a science classroom. *Educational Review, 53*(1), 5–18.
Jiang, X., & Grabe, W. (2007). Graphic organizers in reading instruction: Research findings and issues. *Reading in a Foreign Language, 19*(1), 34–55.
Kress, G. (2015). Semiotic work: Applied linguistics and a social semiotic account of multimodality. *AILA Review, 28*, 49–71.
Kress, G., & van Leeuwen, T. (2006). *Reading images: The grammar of visual design*. Routledge.
Labov, W. (1972). *Sociolinguistic patterns*. University of Pennsylvania Press.
Labov, W., & Waletzky, J. (1967). Narrative analysis: Oral versions of personal experience. In J. Helm (Ed.), *Essays on the verbal and visual arts* (pp. 12–44). University of Washington Press.
Livnat, Z. (2012). *Dialogue, science and academic writing*. John Benjamins.
McCabe, A. (2013). A comprehensive approach to building oral language in preschool: Prerequisites for literacy. In D. M. Barone & M. H. Mallette (Eds.), *Best practices in early literacy instruction* (pp. 26–41). The Guilford Press.

McCabe, A., & Peterson, C. (1991). Getting the story: A longitudinal study of parental styles in eliciting narratives and decoding narrative skill. In A. McCabe & C. Peterson (Eds.), *Developing narrative structure* (pp. 217–253). Lawrence Erlbaum Associates.
Mikel, G. (2007). *What is scientific illustration?* Retrieved from: http://www.scientificillustrator.com/scientific-illustration-faq.html
Mitchelmore, M. (1998). Young students' concepts of turning and angle. *Cognition and Instruction, 16*(3), 265–284.
Murnane, R., Sawhill, I., & Snow, C. (2012). Literacy challenges for the twenty-first century: Introducing the issue. *The Future of Children, 22*(2), 3–15.
Nicolopoulou, A. (1996). Narrative development in social context. In D. Slobin, J. Gerhardt, J. Guo, & A. Kyratzis (Eds.), *Social interaction, social context, and language: Essays in honor of Susan Ervin-Tripp* (pp. 369–390). Lawrence Erlbaum Associates.
Nicolopoulou, A. (2002). Peer-group culture and narrative development. In S. Blum-Kulka & C. E. Snow (Eds.), *Talking to adults: The contribution of multiparty discourse to language acquisition* (pp. 117–152). Lawrence Erlbaum Associates.
Ntelioglou, B. Y., Fannin, J., Montanera, M., & Cummins, J. (2014). A multilingual and multimodal approach to literacy teaching and learning in urban education: A collaborative inquiry project in an inner city elementary school. *Frontiers in Psychology, 5*(Article 533), 1–10. https://www.frontiersin.org/article/10.3389/fpsyg.2014.00533
O'Neill, T., Light, J., & Pope, L. (2018). Effects of interventions that include aided augmentative and alternative communication input on the communication of individuals with complex communication needs: A meta-analysis. *Journal of Speech, Language, and Hearing Research, 61*(7), 1743–1765.
Oakhill, J., Cain, K., & Elbro, C. (2019). Reading comprehension and reading comprehension difficulties. In D. Kilpatrick, R. Joshi, & R. Wagner (Eds.), *Reading development and difficulties*. Springer.
Ochs, E. (1996). *Linguistic resources for socializing humanity*. Cambridge University Press.
Olson, D. (1994). *The world on paper: The conceptual and cognitive implications of writing and reading*. Cambridge University Press.
Pacheco, M. B., & Miller, M. E. (2016). Making meaning through translanguaging in the literacy classroom. *The Reading Teacher, 69*(5), 533–537.
Prince, G. (2003). *A dictionary of narratology* (Rev. ed.). University of Nebraska Press.
Rijlaarsdam, G., Braaksma, M., Couzijn, M., Janssen, T., Raedts, M., Van Steendam, E., Toorenaar, A., & Van den Bergh, H. (2008). Observation of peers in learning to write, practice and research. *Journal of Writing Research, 1*(1), 53–83.
Rimmon-Keynan, S. (1983). *Narrative fiction: Contemporary poetics*. Methuen.
Scarborough, H. (2001). Connecting early language and literacy to later reading (dis)abilities: Evidence, theory and practice. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of early literacy research* (pp. 97–110). The Guilford Press.
Schleppegrell, M. J. (2001). Linguistic features of the language of schooling. *Linguistics and Education, 12*(4), 431–459.
Schola Europaea. (2018). *Key competences for lifelong learning in the European schools* (Ref. No. 2018-09-D-69-en-1). Schola Europaea, Office of the Secretary-General. https://www.eursc.eu/BasicTexts/2018-09-D-69-en-1.pdf
Smith, F. (1987). *Joining the literacy club: Further essays in education*. Heinemann.
Snow, C. E. (2017). The role of vocabulary versus knowledge in children's language learning: A fifty-year perspective. *Infancia y Aprendizaje, 40*(1), 1–18.
Snow, C. E., & Uccelli, P. (2009). The challenge of academic language. In D. R. Olson & N. Torrance (Eds.), *The Cambridge handbook of literacy* (pp. 112–133). Cambridge University Press.
Snow, C. E., Burns, M. S., & Griffin, P. (1998). *Preventing reading difficulties in young children*. National Academy Press.
Spaull, N., & Pretorius, E. (2019). Still falling at the first hurdle: Examining early grade reading in South Africa. In N. Spaull & J. D. Jansen (Eds.), *South African schooling: The enigma of inequality* (pp. 147–168). Springer.
Sweet, A. P., & Snow, C. E. (Eds.). (2003). *Rethinking reading comprehension*. The Guilford Press.

Teubal, E. (2003). The image of the child as scientist. *Hed Hagan, 68*(1), 42–53. (In Hebrew).
Teubal, E., & Guberman, A. (2014). *Graphic texts: Literacy enhancing tools in early childhood*. Sense.
Tversky, B. (2001). Spatial schemas in depictions. In M. Gattis (Ed.), *Spatial schemas and abstract thought* (pp. 79–112). MIT Press.
UNESCO Institute of Statistics. (n.d.). *Glossary: Literacy definition*. http://uis.unesco.org/en/glossary
Unsworth, L. (2006). Towards a metalanguage for multiliteracies education: Describing the meaning-making resources of language-image interaction. *English Teaching: Practice and Critique, 5*, 55–76.
Vygotsky, L. S. (1978). *Mind in society*. Harvard University Press.
Wainer, H. (1992). Understanding graphs and tables. *Educational Researcher, 21*(1), 14–23.
Wells, G. (1981). *Learning through interaction: The study of language development*. Cambridge University Press.
Wilson, E. O. (2003). *Pheidole in the new world: A dominant, hyperdiverse ant genus*. Harvard University Press.

Chapter 12
Writing Technique or Writing Culture? Representations of Writing Among Children and Teachers at High-Achievement Schools in Chile

Gabriela Gómez

12.1 Introduction

In addition to cognitive and linguistic aspects (Crossley, 2020; MacArthur & Graham, 2016; Struthers et al., 2013), writing involves social practices (Cairney, 2005; Gee, 2007). Hence, how writing is used varies according to the context where it is developed. From a sociocultural perspective, writing is an activity located in concrete interactions that involve the local with historical tools and practices (Prior, 2006). Participating in a written culture means becoming involved with this culture and appropriating its traditions (Lerner, 2001). Specifically, work with writing involves the recognition of contextual factors such as community, family history, connection with other institutions, and the perceptions of adults on literacy and schooling (Leu et al., 2017).

The predominance of certain types of writing over others (e.g., the difference between a song lyric and a school task) involves the power relations and social institutions that sustain writing (Lahire, 1993). According to this perspective, school has historically defined the conceptualization of writing (Lahire, 1999), which is probably one of the most important functions associated with schooling (Cook-Gumperz, 2006). However, the standardization of writing practices entails a paradox—a school proposes a model that can dissociate writing from its social functions in domains other than the school environment. Hence, the work of a school is to combine both domains in such a way that a student is able to develop the didactic and social purpose of writing. A school must thus function as a microcommunity of writers and readers (Lerner, 2001) whose literacy culture is composed of a great diversity of resources that include the availability of written material and access to

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different opportunities to practice writing. These practices should be associated with not only the content of a class but also other practices in a school's culture, the culture of its children, and their context (Cairney, 2003, 2005).

Writing practices in school involve a large number of activities that also impact a family's life and literacy culture (Saracho, 2017; Hull & Schultz, 2001). Since the beginning of school, children have arrived with an intuitive interest in writing. As Graves (1983) said, "Before they went to school, they marked up walls, pavements, newspapers with crayons, chalk, pens or pencils … anything that makes a mark. The child's marks say, 'I am' (p. 3)." A literate school culture competes and dialogs with the literate culture developed in a family (Cairney, 2003). Both written cultures overlap and influence each other. Children, on the other hand, develop a written culture with a great diversity of practices that emerge in their family context and from their own agency (Calderón, 2017; Dyson, 2013). Children acquire emerging knowledge about writing from their families and in interactions with a literate culture. In addition to the school practices developed at home, children develop voluntary writing practices that are associated with creative, playful, and decorative writing (Calderón, 2015). These practices are of great relevance since children tend to carry texts from one domain to another (Dyson, 2008); that is, writing practices are continuously recontextualized by students. On the other hand, at school, students develop a large number of writing practices that can be considered "unofficial" and related to various purposes, e.g., expressing opinions, exchanging experiences, or managing peer relationships (Calderón, 2017; Dyson, 2013). These practices account for the agency of children in the construction of their own child culture.

On the other hand, writing is an essential competence for good school performance and learning. In Chile, at least 30% of the language curriculum corresponds to writing skills (Ministry of Education [Mineduc], 2012). However, the time dedicated to writing instruction is less than that dedicated to instruction in reading or other disciplines (Bañales et al., 2020; Flores-Ferrés et al., 2022). This directly impacts learning, as evaluation results show a low level of competence mastery. The 2015 edition of the National System for the Evaluation of Learning Outcomes (SIMCE) included an assessment of written competence for students in the sixth year of primary school; half of these students failed to demonstrate the development of ideas (Agency for Quality of Education [ACE], 2016). These results have persisted over time. SIMCE developed writing test pilots for students of 8 and 10 years in 2008, and their results showed that 38% of children were deemed in an initial stage. In other words, they were unable to produce meaningful and appropriate texts in a communicative situation. In addition, among these preschool students, more than half (55%) had a middle or low socioeconomic status (Curriculum and Assessment Unit, 2009).

Accordingly, it is relevant to analyze the point of intersection between writing as a social and cultural activity and writing as a performance measurement in learning assessment. Accordingly, based on a contextual and socioconstructive perspective, the objective of this study was to characterize the practices, perceptions, and values

attributed to the writing of sixth grade students from schools with outstanding results in the 2013 SIMCE Writing assessment.

12.2 Methodology

The research was conducted with students from high-performing schools in Chilean national assessments (SIMCE writing test 2013). Along with providing census information on writing ability, this instrument has questionnaires that allow the characterization of schools and students with respect to demographic factors, such as gender, socioeconomic status, and geographical location. Our analysis of this information allowed the identification of six schools that, despite their different contexts, achieve outstanding results in the evaluations of the written output of their students. In each of the schools, focus groups were conducted with students in the sixth year of primary school, whose procedures and contents are described below.

12.3 Data and Participants

Our main data source is a database with the results of SIMCE Writing 2013 and the questionnaires provided to students, parents, and teachers. This information was complemented with public data from the case schools concerning teaching staff, enrollment, and student attendance. Only schools with 15 or more students who achieved valid results in their writing assessment were considered (Valenzuela et al., 2016). The number of students who completed the writing assessment was compared with an estimate of the sixth grade enrollment at each school to control for possible significant differences between these two figures. From these data, a multilevel statistical model was estimated for the identification of the cases of interest. Each score was adjusted to quantify the effect that socioeconomic status, educational resources, and other individual and school variables could have on it (see details of the construction of these variables in Appendix A, Tables 12.A.1 and 12.A.2). Based on this adjusted score, a subsample was derived with the schools that were located in the top 10% of the results and that had a positive difference in their scores in relation to what was expected according to their socioeconomic characteristics (see Appendix B, Table 12.B). Using this information, we selected six schools, as shown in Table 12.1, and four of these institutions (two public and two subsidized schools) were located in the urban area of Santiago (Cases 1 to 4). Our selection of rural establishments was intentional; hence, it was possible to work with an establishment (Case 5) located in the rural zone of a metropolitan area (MA) and an establishment (Case 6) which, although not classified as rural, is located in the north of the province of Cachapoal in an environment linked to agro-industrial business. Table 12.1 presents a summary of the characteristics of these six establishments.

Table 12.1 Schools participating in the case study, descriptive variables

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
Location	MA	MA	MA	MA	MA	VI region
Rural	No	No	No	No	Yes	No
Writing score	57,39	54,62	58,46	53,18	54,72	58,19
Reading score	282,35	235,48	281,07	258,09	260,33	298,62
Math score	277,34	229,082	272,17	254,33	263,85	314,63
Dependency	Voucher school	Public school	Voucher school	Public school	Public school	Voucher school
Family incomes (US dollars)	$1000	$ 600	$ 1000	$ 400	$ 450	$ 500
Enrollment	229	360	302	384	187	727

Source: Public official data for educational establishments, Ministry of Education 2013

The final sample thus consisted of groups of between 5 and 6 sixth grade students (32 in total). All our activities were developed in schools in spaces such as a library or classroom. For this, prior consent was obtained from the authorities of the relevant institutions, teachers, and parents. The confidentiality and safety of the children were protected at all times, and they were informed about their rights as participants in the study. The information was recorded only on audio, not on video, to facilitate the free expression of the students. Below, the interviewed children are therefore identified only with capital letters and the case number of their participating school; when necessary for the purposes of narrative, fictitious names are mentioned.

12.4 Procedures

In each establishment, a focus group was organized where the following participatory and playful methodologies were applied:

Activity 1: Literature watch (individual activity)

Each child has an image of a clock on a letter-size sheet. Children should write the writing activities they complete on a normal day on the clock. The activity is introduced by giving an example of the researcher's daily process. The purpose of the example is for children to conceptualize that writing exceeds the school environment. After a few minutes, the monitor asks the children to describe the activities they complete during the day.

Activity 2: Literacy map (group activity)

A plan of a house is presented on a large sheet of paper that all children can see clearly. The children should discuss what writing activities they carry out in each room of the house and mark it on the map by means of a sticky note (post-it). The purpose of the activity is for children to socialize with respect to all the activities

Fig. 12.1 Children working in "literature watch" and "literacy map." (Original photograph taken with permission of all participants)

they complete at home. After a few minutes, the researcher asks the children to explain the activities they wrote in each room (see Figs. 12.1 and 12.2).

Activity 3: Objects to write (individual activity)
Participants are asked to think of an important object to them and to use it while writing. It can be a life diary, a blackboard, puzzles, tablet, cell phone, etc. Then, each child must explain the usefulness of the object and why it is important to him or her.

Activity 4: Final reflection questions to discuss with the group
4.1. Who likes to write? What things do you write?
4.2. What do you like about writing?
4.3. What is easier, to read or write? Why?
4.4. What do you find boring to write?
4.5. Who writes in your home? What things do they write?
4.6. Do you know someone who writes well? Why do you think this person writes well?
4.7. Is there anything else you would like to share about writing?

The results of this chapter derive from our thematic analysis (Braun & Clarke, 2006) of the participants' interventions. The records were transcribed and coded using ATLAS.ti. The analysis was performed using the guidelines presented in Table 12.2, which were developed based on the research framework of the project.

Fig. 12.2 Finished work of "literacy map." (Original photograph taken by the researcher)

Table 12.2 Relationship between themes and sub-themes and the activities of the focus group

Themes	Sub-themes	Activities of the focus group
Role of writing in everyday activities	Frequent writing activities, both at school and at home	1, 2, 3, 4.1, 4.2
	Description of preferred writing activities, spaces, and social instances in which they are developed	1, 2, 3, 4.1, 4.2
Image of children and adult writers	Children's beliefs about writing	1, 4.1, 4.4
	Image of parents and teachers as role models of writers	4.5, 4.6

12.5 Results

12.5.1 Writing Activities That Children Frequently Complete at Home and School

All the children we interviewed declared that they write at home every day and understood writing to be a means of communication that is carried out mainly with digital media. There is also a conceptualization of writing as a means of personal expression. A large part of the writing activities carried out at home are related to the use of technological means. Among these, WhatsApp appears with greater force, as it is used to converse in group chats with peers or in individual conversations with friends, colleagues, or families: "…I write [on] WhatsApp with my mother, my father, my friends, and social networks" (Case 3). In addition, they highlight the

social use of this application, since they also use it to catch up on homework or organize work with their classmates: "…when I miss class, I always ask, 'Do you have the material for this day?' And Ana responds, 'I am not at home'. Then, to Barbara, if she does not have the notebook; I ask Daniela, Mónica, all of them…" (Case 6). Other social media platforms used by students are Facebook and Instagram and, to a lesser extent, Twitter. They also use internet groups, such as Wattpad, on some notebooks or tablets that they have at home.

Homework is an activity that all children frequently perform at home and usually involves writing that is performed mainly by hand, although sometimes they use the internet to search for information or use a computer to create a PowerPoint presentation: "I search [on the internet] when I do not understand a task or the meaning of something and it needs to be Googled" (Case 3).

Many students state they have some object in their home for writing, such as an agenda, notebook, or life diary. In these objects, they write about topics that interest them or things that have happened to them or that catch their attention. They create stories, poems, or songs and use them to express their opinions or feelings: "…I have a notebook where I write down classes that I like, some song [or] some book that I'm reading. When it occurs to me that suddenly, I'm in my room, doing anything and like that, suddenly, I get inspired and I start writing something" (Case 1). In some cases, children attribute great importance to objects related to writing, whether it is a cell phone itself or pencils or notebooks with sentimental value for them: "I do not care about the pencil, I get that from anywhere. However, the notebook [I care about] because I found it in one of the drawers of my grandfather who died; in it, I write every day; since it was empty, I took it" (Case 6).

Several children also use a cell phone to write things that interest them. Notably, some forms of writing are seen as natural and routine and are even carried out in parallel with other activities, such as watching television, talking (chatting), or watching a movie, while noting the parts or characters that interest them: "While I am dressing or putting on my pajamas…I write, I don't know, on WhatsApp, or I look for songs on YouTube…"; "I usually watch television with my mom, while I respond to my comments on Instagram, Facebook, etc." (Case 1).

Regarding the use of space in their home, students report using various places in their house to carry out writing activities. In general, children state that they write in their room as well as in their parents' room, living room, dining room, courtyard, or even bathroom. This is related to the fact that the object that children use most often to write is their cell phone, which can be transported to any of these rooms. Many claim to have notebooks or tablets, which can also be moved without problems: "…I [don't] use the computer in the courtyard, because there, I have a notebook, so I use it in my room, in the living room, and in the dining room too" (Case 3). Several children report having a desk for completing their homework or a study room. Others state that they complete their homework in their living room or dining room: "[Interviewer]: Do you complete summaries in the dining room? / A: Yes, I play music and I relax and do the summaries" (Case 4).

Interestingly, writing is perceived as an activity that can be carried out in any place or space, even on the floor or walls of their houses. It is also striking that

several students emphasize that a writing space should be a comfortable place and that the activity even relaxes them: "…sometimes, on the floor, I also write; it's cool, because sometimes it's freezing" (Case 5). Regarding the duration of these activities, children report spending much time at home writing on social networks. Several use their cell phones until very late at night or very early in the morning: "[Researcher:] Do you get on Facebook? / [Everyone]: Yes. / C: Yes, all day. / B: Until 12:00 at night… / A: I disconnect from WhatsApp at 2:00 in the morning" (Case 5). Concerning school, children state that there are some subjects for which they have to write extensively by, e.g., copying a great deal of material from the blackboard or taking many notes: "A: At 9:00, we write./B: For example, if we have history, the [teacher] fills the board approximately 4 times and we copy those boards on our notebooks" (Case 5); "[In language class,] we write calligraphy to practice our handwriting a little and we write; then, [to] pass [this] class, the rest of the day, I write until 16:30, which is when we leave class" (Case 6).

They also consider writing on the "little notes" that they pass to their classmates a writing practice in school, as is completing homework during breaks or as allowed by their class schedule: "At 8 o'clock, I begin to I check my cell phone and start writing. At 9 o'clock, I begin to copy from the blackboard. At 10 o'clock, I write on my cell phone, and I also start to check it. At 11 o'clock, I begin to write on small pieces of paper or in the notebook" (Case 2). In summary, when considering their personal and school activities, students describe how they write at almost every time of the day: "…At 6 in the morning, I check my cell phone or tablet and write messages. At 7:00, I check if I missed doing it. [For] something in the notebooks, at 8:00, I write papers asking questions to some classmates. At 9:00, we start writing material. At 10:00, if I bring anything technological, I write messages, then at 13:00, I write stories if we are in language [class]. At 14:00 hours, I write in the back of the notebook. At 16:00, I write messages to my friends, and at 17:00, [I write] some song that I like" (Case 2).

12.5.2 Description of Preferred Writing Activities

Most children state that they like to write and that they even find it more entertaining than reading. Among their favored activities is writing for their own interest without any obligation, noting topics that catch their attention to avoid forgetting them, writing about their feelings and thoughts, and writing for social communication with their friends or family. One of the writing activities that children prefer is engaging with other people on WhatsApp because this application is easier to use (than handwriting), allows them to erase text, and automatically corrects misspelled words. They also comment that it is more entertaining and that they laugh when using it: "…the cell phone is more fun, because, for example, you laugh…to write is more fun as it is easier…or, for, example it has a word corrector, that is, if you make a mistake that you should erase, you go to the word, erase it and write it again" (Case 5).

Another favored topic is writing to record various personal interests, i.e., writing about movies and songs that they like, magic tricks that appear in books, or essays on problems that interest them: “I write down in my songbook, dance and theater activities, because for me, that is also very important, because I like theater” (Case 3); “…Because I truly like to read Harry Potter, I kind of read and write the most incredible magic tricks” (Case 1); “Now, I am reading about gender theory, philosophy, [and] about art, so I have written several things and I bring them to the teacher to correct it” (Case 1).

Children also declare that they value when they are allowed to create freely in school: “I like to do many things…I like it for example…[when the teacher says] children have to invent a story about a topic that happens to them, and I get excited, I despair, oh! This idea can be horror; I put vampires in the story and suddenly, a ghost comes out. I like that, I like it a lot” (Case 5). This is in contrast to their lack of interest in writing about the subjects imposed on them in the school or simply copying notes from the blackboard.

Several children are interested in writing stories, poems, or original songs: “I like to write, that is, I do not like, for example, when I have to write a lot of material. For example, I like to write about theater things, things like that, things that interest you more” (Case 3); “I love history, and it’s strange because it doesn’t bore me…that’s what the teacher has…before, she wrote a longer reminder, but now, she shortens it and [provides] key phrases, so you have more, as well as recorded, so to speak. [If it’s] shorter, then one also has more interest in writing it down, because if it were a lot of material, like a giant bible, it would not make you want to write it down either” (Case 1).

Finally, writing appears to be a means to express oneself. Several children report having a notebook or special object where they can write down intimate things or any topic that occurs to them. They highlight this moment of being alone and writing what happens to them and how they feel: “[Researcher]: And, what do you like about it? When do you write? [Child]: The personality, because you can write what you feel, the feelings, the reality of life, the problems, as if [they] were someone else’s, as real events”; “I like to write because one can express their creativity to the fullest; there are no limits to creativity and I like that, that one can express oneself” (Case 4).

12.5.3 Children’s Beliefs About Writing

A recurring theme for children is the opposition between writing material for school and writing for pleasure. They do not like the first as it tires them and bores them: “[Researcher] And, if you had to choose one of the two forms of writing, the one you do at school or the one you do at home because you want to, which one would you choose?/A: I would choose the home…Because here, we all write about a common theme…The home is free./B: Yes, it is better because it is a free topic, so you can put down the first thing that comes to mind; instead, here you have to draw

conclusions and answers based on a topic" (Case 6). Writing for pleasure, on the other hand, motivates them to express their ideas, their creativity, and their imagination. There is a kind of duality between writing on their own and writing to learn in school: "When we write, we are expressing what we feel, and when we are here in school, it is like we are just learning, we cannot express [ourselves]…here, at school, they dictate to us; we are obliged to write what they tell us, [regardless of] if we write what we feel, what we want to write" (Case 6).

On the other hand, children are clearly aware of the communicative function of writing in the sense that what they write must be understood and that these writings have a specific audience. Furthermore, spelling and calligraphy are described as important aspects of written production and, in one case, registration is alluded to: "I think that when you write for a task or work, you have to use a more formal language, because one cannot use slang in a task; that would be strange. [So,] one changes the language a lot [between] how one writes in a task or in some work and how one speaks, for example, on WhatsApp, in the course chat" (Case 1).

On the other hand, the communicative function of writing is closely associated with the expression of feelings and the release of emotions: "Writing is a way of expressing oneself, a way to free oneself at a certain point…to vent, when one is sad or angry, all the feelings one has" (Case 6). Writing also allows encounters with others, which would seem very typical for this stage in the socioaffective development of children: "[Writing is important because]…/A: it is a form of communication./B: through writing, we can find people who think and feel like us; it is a way of having a common interest with more people./C: it is a way of expressing ourselves, of venting by saying what happens to us" (Case 6). Children who have a negative view of themselves as writers associate this perception with the difficulty of writing texts that must be understood by others. Implicitly, there is an awareness of the importance of the communicability of such texts, which is not consistent with the usual writing practices of their teachers: "I, in my other school with [my friends], went to the playground and wrote and so did they. We showed the teachers, and they did not understand anything, and that is why they told us that we were more or less [mediocre and] no more" (Case 6). In all the schools, one or more children described writing in social instances and sharing this activity with another person. Most commonly, this other person is female and part of their family (such as their mother or sister) or a classmate at school: "We bought 3 notebooks with a friend and we wrote everything that happened to us and how we felt" (Case 6). In general, the theme of such group writing is socialization or academic activities for school: "…I lived with my 3 sisters; we all wrote, for example, there was a free time when we wrote the songs with one of my sister, and then we read them…" (Case 6).

Regarding who they write for, children declare that most of their writing is directed to their friends and family, especially WhatsApp groups, which stand out because they help them stay connected: "We make WhatsApp groups, and if [our teacher] Daniela forgets to tell us something in the afternoon, she tells us by using WhatsApp: 'Boys, bring your materials tomorrow!'" (Case 5). Some children also report talking to their parents or family through this same means. Only one student

claims to have written letters to his grandfather, but he states that this was 4 years before the interview.

12.5.4 Image of Parents as Models of Writers

One of the most consistent results of this study is a response that children provided to "Who do you know who writes well?" In all six focus groups, the most repeated response by children was "my dad," "my father," "my mother," or another close relative: "[Researcher]: The last question: if you had to choose a person who writes better than you, who would you say writes better of the people you know? A: My mom. I: Your mom? / B: My sister. / C: My brother. / D: My dad…" (Case 4).

What appears most frequently in these conversations with children is the image of their parents as writers in study and work situations. It was common for children to mention that their parents were studying at a university or completing a thesis or work related to the academic world: "My mother writes too much because she studies pedagogy in Spanish. So, I see her and every time I say something to her. I want to ask her a question, but she tells me, 'Wait for a little bit'. Then, I'm already finishing and she's also doing a lot of what I do, which is taking notes from books; she has to read a lot" (Case 4).

Regarding work environments, the great variety of professional writing activities that children report for their parents is surprising. Parents send messages to their colleagues, write reports, record customer data, complete spreadsheets, write invoices and reports, etc.: "My mother writes little, but at work, she writes a lot, because she is an insurance secretary"; "My mother works at an insurance company, where she has to write [a lot]" (Case 2); "My dad works and is kind of well organized, so he puts everything he does in an agenda" (Case 3); "…My father studied law and sometimes, he writes about cases. He stays on the computer, writing, and I look at him, and suddenly, I review what he does because I have to do a job and there are like 4 or 6 pages that he writes and goes on and on…" (Case 5).

When asked why their parents write well, children allude to not only formal aspects, such as spelling and calligraphy, but also more complex criteria, such as coherence ("they are understood") and creativity: "…because, you understand, the letter [to the mother], and when she was a child, she did very well in grammar. So, she knows all the accents and the sharp and serious words, but for my father, I find that he does not write very well like that, because he is not understood much. But, he writes better on WhatsApp because he takes the time to correct [his writing]" (Case 3); "My mom has nice handwriting, and she never has a misspelling" (Case 2).

12.6 Final Remarks

The purpose of this study was to address writing instruction from a contextualized perspective based on its two essential dimensions: the condition of writing competence that is acquired through direct teaching and its condition as a social and cultural process. Both dimensions construct writing as a complex activity in which cognitive, linguistic, social, and cultural processes converge and where writers, in this case, children, are at the center.

In this context, our analysis of the opinions children shared through focus groups shows that they engage in frequent writing practices with various purposes, giving great importance to the creative role of the word. An important part of their daily activities is linked to writing, to both communicate and express themselves. Here, technology plays a central role as their preferred medium for writing. In children's discourse, we identified a rather marked division between activities developed in the classroom and those developed at home. The former are described as mechanical activities, functional for children's academic duties. In all cases, school writing is understood to be unidirectional, from the blackboard to the notebook or from the guide to the notebook. Hence, children understand such writing as a transcription of the material they have to learn and, in this sense, as an activity that precedes reading comprehension. This suggests that the conception of writing as a competence with its own complexities, teaching strategies, and evaluations is not yet present in these classrooms.

On the other hand, we find that students easily recognize the teachers who make them "copy more boards" and value the teachers who make them write their own compositions, whether on a computer or in manuscript from. Hence, they declare that they like to express their ideas or feelings in writing without being constrained by instructions that take away their freedom and seem routine.

Another important aspect with respect to how students conceive writing is the exemplary importance of their family, particularly their parents. When asked about who they know who "writes well," most children responded by referring first to their mother or father or, second, to some other older relative. Among these, adults who study or write frequently in their profession or professional work stand out as exemplary figures. As children frequently observe them writing, these adults are their first reference for people who write "well."

Consequently, we have shown that children express great enthusiasm when their writing tasks are significant, highlighting the important role of families as models of writing practice. Therefore, if these factors are merged and reinforced with a more up-to-date knowledge of the conceptualizations and methods of writing instruction, the results will have a great impact on students. This impact could not only improve the results on standardized assessments but also significantly increase the general learning capacity of students. Thus, overall, we have identified the core role writing plays in children's participation in the society of knowledge and culture, both inside and outside school.

Appendix

Appendix A

Table 12.A.1 Student-level variables considered in the model to adjust SIMCE Writing score 2013

Variable	Descriptor	Mean	S.D.
SIMCE Writing score	SIMCE Writing score 2013	49.75	10.04
Sex	Dichotomous 1 = girls; 0 = boys	0.49	0.50
Books	Continuous from 0 to 100 books at the student house	34.52	26.89
Digital access	Dichotomous 1 = There are a computer and internet access at home	0.83	0.38
SES index	Index derived from principal component analysis using the variables mother and father education and household income ($\alpha = 0{,}81$)	0.00	0.99
Parental expectations	Dichotomous 1 = Parents declare to expect that the student complete a tertiary education degree	0.66	0.47

N students = 205,745
Description, mean values, and standard deviation

Table 12.A.2 School-level variables considered in the model to adjust SIMCE Writing score 2013

Determinant	Descriptor	Media	D.E.
Public school	Dichotomous 1 = Administered and finance by national government	0,42	0,49
Voucher school	Dichotomous 1 = Administered by private foundation and finance by national government	0,50	0,50
Private school	Dichotomous 1 = Administered and finance by private foundations	0,07	0,26
Low incomes	Dichotomous 1 = Attend mostly low economic income students	0,12	0,32
Low and middle incomes	Dichotomous 1 = Attend mostly low and middle economic income students	0,36	0,48
Middle incomes	Dichotomous 1 = Attend mostly middle economic income students	0,31	0,46
High incomes	Dichotomous 1 = Attend mostly high economic income students	0,21	0,41
Rural	Dichotomous 1 = School located in a rural community	0,11	0,31
Primary school	Dichotomous 1 = School only offers primary level education (not secondary)	0,56	0,50
Selectivity	Dichotomous 1 = 50% or more parents participated in a selective process in order for the children to be accepted for enrollment at the school (Contreras et al., 2010)	0,27	0,45
Teachers' training	Dichotomous 1 = 50% or more of the teachers declare to have postgraduate degrees	0,59	0,49

N schools = 4480
Description, mean values, and standard deviation

Appendix B

Table 12.B Multilevel models to adjust SIMCE Writing score 2013

Fixed effects	Empty model (SE)	Adjusted model Coefficient (SE)
Student level		
Sex		3,08*** (0,04)
Books		0,02*** (0,00)
Digital access		−0,72*** (0,06)
SES index		0,66*** (0,03)
Parental expectations		2,40*** (0,07)
School level		
Public school		−0,92*** (0,16)
Low incomes		−2,77*** (0,29)
Low and middle incomes		−2,32*** (0,23)
Middle incomes		−1,11*** (0,20)
Rural		1,56*** (0,18)
Selectivity		2,48*** (0,21)
Teachers' training		0,23** (0,12)
Intercept (thresholds)	49,53*** (0,07)	48,05*** (0,25)
Random effects		
Intraclass correlation	0,20	0,15
Level 2 (school) variance	19,96	13,53
Variance explained		0,32
Level 1 (students) variance	80,72	77,21
Variance explained		0,04
−2 log V	1,378,761	1,369,085
Δ		9676

N students, 189,372; *N* school, 4151; $^{**}p > 0.01$, $^{***}p > 0.001$; income reference, high incomes; reference school dependency, voucher school

References

Agencia de Calidad de la Educación [ACE]. (2016). *Resultados de aprendizaje, escritura 6to básico [Learning outcomes, writing 6th grade]* (M. de Educación, Ed.). Ministerio de Educación. Learning outcomes, writing 6th grade.

Bañales, G., Ahumada, S., Graham, S., Puente, A., Guajardo, M., & Muñoz, I. (2020). Teaching writing in grades 4–6 in urban schools in Chile: A national survey. *Reading and Writing, 33*(10), 2661–2696.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101.

Cairney, T. H. (2003). Literacy within family life. In N. Hall, J. Larson, & J. Marsh (Eds.), *Handbook of early childhood literacy* (pp. 85–98). SAGE.

Cairney, T. H. (2005). Literacy diversity: Understanding and responding to the textual tapestries of home, school, and community. In *Portraits of literacy across families, communities, and schools* (pp. 57–78). Routledge.

Calderón, M. (2015). Producción escrita y literacidad familiar. [Written production and family literacy] *Literatura y lingüística, 32*, 259–282.

Calderón, M. (2017). Self-generated literacy practices in disadvantaged environments in Chile. *International Journal of Education and Literacy Studies, 5*(1), 29–41. https://doi.org/10.7575/aiac.ijels.v.5n.1p.29

Contreras, D., Sepúlveda, P., & Bustos, S. (2010). When schools are the ones that choose: The effects of screening in Chile. *Social Science Quarterly, 91*(5), 1349–1368. https://doi.org/10.1111/j.1540-6237.2010.00735.x

Cook-Gumperz, J. (2006). *The social construction of literacy* (Vol. 25). Cambridge University Press.

Crossley, S. A. (2020). Linguistic features in writing quality and development: An overview. *Journal of Writing Research, 11*(3), 415–443. https://doi.org/10.17239/jowr-2020.11.03.01

Dyson, A. H. (2008). Staying in the (curricular) lines practice constraints and possibilities in childhood writing. *Written Communication, 25*(1), 119–159.

Dyson, A. H. (2013). The case of the missing childhoods methodological notes for composing children in writing studies. *Written Communication, 30*(4), 399–427.

Flores-Ferrés, M., Van Weijen, D., & Rijlaarsdam, G. (2022). Understanding writing curriculum innovation in grades 7-12 in Chile: Linking teachers´ beliefs and practices. *Journal of Writing Research, 13*(3), 367–414. https://doi.org/10.17239/jowr-2022.13.03.02

Gee, J. P. (2007). *Social linguistics and literacies: Ideology in discourses*. Routledge.

Graves, D. H. (1983). *Writing: Teachers and children at work*. Heinemann Educational Books.

Hull, G., & Schultz, K. (2001). Literacy and learning out of school: A review of theory and research. *Review of Educational Research, 71*(4), 575–611. https://doi.org/10.3102/00346543071004575

Lahire, B. (1993). *La raison des plus faibles. [The reasons for the weakest]* Presses Universitaires de Lille.

Lahire, B. (1999). *L'invention de "l'illettrisme". [The invention of "iletrismo"]* Éditions la Découverte.

Lerner, D. (2001). *Leer y escribir en la escuela: Lo real, lo posible y lo necesario*. [*Reading and writing at school: The real, the possible and the necessary*] Fondo de Cultura Económica México.

Leu, D. J., Kinzer, C. K., Coiro, J., Castek, J., & Henry, L. A. (2017). New literacies: A dual-level theory of the changing nature of literacy, instruction, and assessment. *Journal of Education, 197*(2), 1–18. https://doi.org/10.1177/002205741719700202

MacArthur, C. A., & Graham, S. (2016). Writing research from a cognitive perspective. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 22–44). The Guilford Press.

Ministerio de Educación [Mineduc]. (2012). *Bases curriculares para la educación básica*. [*Curricular bases for primary education*] Ministerio de Educación.

Prior, P. (2006). A sociocultural theory of writing. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 54–66). The Guilford Press.

Saracho, O. N. (2017). Literacy in the twenty-first century: Children, families and policy. *Early Child Development and Care, 187*(3–4), 630–643. https://doi.org/10.1080/03004430.2016.1261513

Struthers, L., Lapadat, J. C., & MacMillan, P. D. (2013). Assessing cohesion in children's writing: Development of a checklist. *Assessing Writing, 18*(3), 187–201. https://doi.org/10.1016/j.asw.2013.05.001

Unidad de Currículum y Evaluación. (2009). *Informe de resultados de escritura SIMCE 2008*. [*SIMCE 2008 writing results report*] Ministerio de Educación.

Valenzuela, J. P., Bellei, C., & Allende, C. (2016). Measuring systematic long-term trajectories of school effectiveness improvement. *School Effectiveness and School Improvement, 27*(4), 473–491. https://doi.org/10.1080/09243453.2016.1150861

Chapter 13
Rewriting the Book: New Literacy Practices and Their Implications for Teaching and Evaluating Writing

Kristina Cordero

13.1 Introduction

Poised on the vast landscape of communication in the twenty-first century, young learners have a fascinating, if daunting horizon to take in. The challenges they must confront are far more subtle and complex than those tackled by their peers of a generation ago. The pandemic has shaken certainties about life, school, and work. Social and political incidents have prompted widespread questioning of traditional notions about politics, gender, race, and identity. The Internet's penetration of our everyday lives, and the sheer volume of information that is made available to young people (and often dangled before them in a seductive and sly manner), has cast a shadow on the sunny promises of the "information age": the Spotify-and-podcast media culture in which so many of us exist, picking and choosing the news we care to hear, read, and believe, at moments has made the early twenty-first century feel more like the "misinformation age," polarizing people more and more despite the promises of all that freely available information.

All of us, but especially young people, are bombarded with messages—print, image, video, and other modes of expression—from morning to night. As they absorb information from friends and others in the world around them, they reply back in synchronous time, moving at warp speed through a process that, in the "olden days," took so much longer. For young people, this accelerated age of communication has been thrust upon them just as they are working to define and express who they are, who they might like to be, what they think. More than ever before, they need to learn how to read and listen thoughtfully and critically, and write and

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speak with confidence, clarity, and respect, for the range of real-life everyday situations that await them, in and out of school.

Advocates of the twenty-first-century skills have signaled the "4 Cs"—communication, collaboration, critical thinking, and creativity—as key skills students need to develop in order to effectively understand and contribute to the world they will be living in (Partnership for 21st Century Skills, 2006). Arguably, these skills were important long before the twenty-first century and its attendant frameworks came of age, and wise educators taught them instinctively and intentionally, whether or not they were mandated by a given set of curricular standards. But they are especially valuable skills to focus on now, as available technologies have so radically changed the nature of reading and writing and the way we consume and produce information. The instant availability of such incalculable quantities of information is exciting but overwhelming, and more than ever, educators must think carefully about what skills they wish to pass on to students so that they may not just survive but thrive amid this "embarrassment of riches" we now have in terms of access to information in our literate world.

When the school day ends, young people around the world are communicating. Through a broad range of dialogic, interactive, multimodal, synchronous, and asynchronous activities, they consume and process information, share experiences, and let off steam with their peers, composing all kinds of messages, making meaning in different ways (New London Group, 1996). These novel practices, which engage the four language skills of reading, writing, listening, and speaking in new ways, are redefining how we communicate, and many of them offer valuable insights for adapting writing instruction and assessment. What are the implications of these new practices for in-school writing instruction? How might new technology tools and literacy practices change the way we think about, teach, and evaluate writing in school, particularly in light of the social and cultural upheavals of the past several years? How might young people's informal literacy practices today serve as a "roadmap" for the challenges and opportunities of preparing students to be effective writers and communicators in the twenty-first century? How may the role of the teacher change? On the other hand, what might this ever-shifting landscape tell us about what hasn't changed? What are the traditional skills that are still essential to becoming an effective communicator? This chapter will explore new paradigms in contemporary out-of-school writing and literacy activities to understand how the notion of literacy is unfolding and evolving.

I will then contrast some of these practices against contemporary standards for writing and learning in school. From there, I will offer an appraisal of how we might orient our standards and expectations, so that we can think about addressing and acknowledging contemporary literacy practices while also retaining what we know about best practices for literacy instruction. Ultimately, this chapter seeks to propose new ways for thinking about preparing students to be active, engaged writers and communicators in their personal, professional, and civic lives in the years to come.

13.2 From Socrates to Vygotsky and Beyond

The dawn of a new era tends to cause the jitters. In our own age, we have seen it, particularly in the realm of education, where the advent of digital technologies has prompted the emergence of a stark dichotomy: the utopian versus the apocalyptic visions. The utopians advocate digital reading, writing, and learning—they believe that paper books and "paper-and-pencil" learning are obsolete, replaced by flat screens with an endless array of at-your-fingertips functionalities, from dictionaries and audio narration to sophisticated search capabilities that make "old" reading seem dull. They defend their stance by pointing to the generation of so-called digital natives (Prensky, 2001), and all of us who live with and/or teach children of the TikTok generation have heard the same blasé, dismissive remarks about the tedium of reading, in the words of my daughter, "eighteenth-century" books. They have their point. At the other end of the spectrum are those journalists and researchers warning the public—especially those with children—of the inherent dangers of technology and its addictive potential (Melo et al., 2020). Yet neither the utopian nor the apocalyptic vision is entirely realistic (Gottschalk, 2019) or useful since there is no single way that millennials or members of Gen-Z read and write (Botterill et al., 2015; Kilian et al., 2012). The way people use traditional and digital technologies is more varied and layered than the exclusively digital futuristic visions and the nostalgic "print-only" visions would suggest.

It makes sense that new technologies raise anxieties. As one generation ages, its members may fear the loss of what they know, cherish, and believe in. And as another one emerges, its members naturally wish to explore and celebrate new ways of thinking about and doing things. As Marshall McLuhan astutely observed:

> Innumerable confusions and a profound feeling of despair invariably emerge in periods of great technological and cultural transitions. Our 'Age of Anxiety' is, in great part, the result of trying to do today's job with yesterday's tools—with yesterday's concepts. (McLuhan & Fiore, 1967, p. 9)

He wrote those words over 50 years ago, but he expresses precisely the problem we face today: the confusion of making the transition between what we know from past experience and what the future might (or might not) hold. In this chapter, we will explore some contemporary trends in reading and writing to see how they may add to what we already know about writing instruction and evaluation. But for the moment, let's pause to look at how these generational shifts have played out in the past and why.

In Plato's Phaedrus (Rowe, 1986), the Greek philosopher presents us with an imagined dialogue between his teacher, Socrates, and the interlocutor Phaedrus. In this dialogue, Socrates reflects on the practice of writing, concluding that:

> …your invention will produce forgetfulness in the souls of those who have learned it, through a lack of practice at using their memory, as through reliance on writing they are reminded from outside by alient marks, not from within, themselves by themselves. So you have discovered an elixir not of memory but of reminding. To your students you give an appearance of wisdom, not the reality of it; thanks to you, they will hear many things with-

> out being taught them, and will appear to know much when for the most part they know nothing, and they will be difficult to get along with because they have acquired the appearance of wisdom instead of wisdom itself. (p. 62)

Here, Socrates asserts the importance of being able to remember for oneself and not have to sift through tome after tome in search of an elusive bit of knowledge. This remains relevant: a lawyer before a jury doesn't have time to look things up. A ship's captain caught off-course round Cape Horn doesn't have time to look things up. She must rely on her interiorized store of knowledge, of memories, of things lived and learned through the body, the senses, and the mind—written instructions take too long in the immediacy of real life. Plato (Rowe, 1986), in his Socrates character, continues:

> …I think writing has this strange feature, which makes it truly like painting. The offspring of painting stand there as if alive, but if you ask them something, they preserve a quite solemn silence. Similarly with written words: you might think that they spoke as if they had some thought in their heads, but if you ever ask them about any of the things they say out of a desire to learn, they point to just one thing, the same each time. And when once it is written, every composition trundles about everywhere in the same way, in the presence both of those who know about the subject and of those who have nothing at all to do with it, and it does not know how to address those it should address and not those it should not. When it is ill treated and unjustly abused, it always needs its father to help it; for it is incapable of either defending or helping itself. (p. 63)

What Plato tells us is that writing, once done, sits—the same way a painting sits on a wall, static and undynamic. In the fifth century BCE, the practice of writing on papyrus and animal skins was not unfamiliar to learned men like Socrates and Plato, but it was not what it is today. Writing was perceived as a copy, an inferior form to the face-to-face dialogue that truly evidenced a person's intellectual prowess and the dynamic, interactive nature of knowledge acquisition. At this moment in history, when writing was not a widespread practice and communication occurred in smaller clusters of human communities, the need for writing was wholly different to what it is today. Plato and Socrates seem to have perceived writing as a mimetic and mechanical rather than creative activity, one for documenting ideas rather than generating them. Writing, to them, was "dead words" sitting on a physical surface. What brought them alive was oratory, dialogue—the very form in which the messages contained in the *Phaedrus* are delivered.

Walter Ong, in *Orality and Literacy* (1982), explains it this way: "By storing knowledge outside the mind, writing and, even more, print downgrade the figures of the wise old man and the wise old woman, repeaters of the past, in favor of younger discoverers of something new" (p. 41). In a world in which knowledge is officially documented through writing, the oral tradition wanes and fades into something else. In our age, it tends to be seen more as the bearer of culture than scientific or technical knowledge.

Yet, Socrates' opposition to writing is more than just a reflection of the era and context in which he lived. The face-to-face dialogue, like the duel, that pits man against man, truth against truth, or truth against lies is what allows us to examine our knowledge, formulate arguments, test those arguments, improve or change them,

and communicate them. In the twenty-first century, these ideas about the importance of dialogue live on in the Socratic method that is still used as an instructional approach in law schools and other learning spaces. But it mattered then and now, as Lam (2011) reminds us, not because dialogue is inherently good, or virtuous, but for a much more vital and pressing reason:

> ….the ultimate goal for the Socratic Learning Method is not to help students to come up with a proposition that they can rest safely with –this would merely contribute to the creation of dogmas. The true goal of the Method is to help students examine their own beliefs and new information they encounter. In frequently exercising the Socratic Learning Method, the students should become independent learners with curiosity and sensitivity toward new information, and gradually develop a mental habit of active inquiry and vigorous thinking. (p. 15)

Elicit, clarify, test, and decide. This is the Socratic method, and, if we give it a good think, it isn't a bad recipe for cultivating some of those twenty-first-century skills mentioned above, particularly critical thinking—a skill more important than ever in our communications age, given the competing forms of information and "news" that we all must digest, assimilate, and evaluate in order to formulate our opinions and belief, take positions, and make decisions as informed, engaged citizens.

The importance of dialogue has been taken up in many different spheres of life in the twentieth century and by many different thinkers. For the purposes of this chapter, we look at Freud, Breuer, and Vygotsky for the light they shed on the topic of communication and writing. Freud and Breuer (2004), in documenting the case of the "talk therapy" that helped cure the patient Anna O. of her psychological ailments, pioneered the notion of dialogue and narrative building as key components for navigating trauma as well as more garden-variety mental and emotional distress (Horgan, 1996; Menand, 2017). Despite the disputes that have arisen around many of Freud's theories, it is significant that we are still debating his ideas today and implementing them through dialogue-based therapeutic treatments in formal and informal mental health settings everywhere. With the culture of written expression firmly established by Freud's time, it is especially meaningful that it was human-to-human dialogue that unlocked the understanding of the mind.

Human-centered dialogue as a source of learning and growth is also a focal point—and occasionally a sacramental one—in a number of spiritual traditions, from Catholicism and Buddhism to Alcoholics Anonymous, in which confession with another human is essential to healing and/or forgiveness. In the best confessional and psychotherapeutic experiences, the outpouring of ideas and then their refinement through dialogue recall the Socratic learning method. Elicit, clarify, test, and decide.

Social psychologist Lev Vygotsky (1896–1934) took this to another level in his development of co-constructive theory. "Consciousness is co-knowledge," he famously said (Leontiev, 1981), asserting that the acquisition of knowledge is dialogic and social, that we are primarily social beings, relational individuals. In *Mind and Society* (1978), he very plainly states that:

> Our concept of development implies a rejection of the frequently held view that cognitive development results from the gradual accumulation of separate changes. We believe that

> child development is a complex dialectical process characterized by periodicity, unevenness in the development of different functions, metamorphosis or qualitative transformation of one form into another, intertwining of external and internal factors, and adaptive processes which overcome impediments that the child encounters. (Vygotsky, 1978, p. 73)

Here, Vygotsky places the emphasis on the uneven, recurring, and overlapping nature of learning through dialogue. His zone of proximal development (ZPD), that "gray space" between what a child can do on her own and what she can only achieve with assistance, is the space where dialogue becomes learning. The ZPD is:

> the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (Vygotsky, 1978, p. 86)

This dialectic notion of learning contrasts starkly with the typical process of learning to write, a matter he takes up in *Thought and Language* (1962), saying that it is the abstraction of writing that makes it so challenging for children to learn, calling it "speech without an interlocutor, addressed to an absent or imaginary person or to no one at all" (Vygotsky, 1962). Here, he evokes precisely what Socrates complained of in his dialogue so many millennia ago. Writing begs an interlocutor.

Transforming "maximally compact" inner speech into "maximally detailed" written language is far more challenging than moving from thought to spoken word, which (again, recalling Socrates) occurs through the intrinsically motivating dialogic process of conversation (Bereiter & Scardamalia, 2013; Vygotsky, 1962). Because the goal of writing instruction is to help students achieve autonomy as writers (Bereiter & Scardamalia, 2013), writing has often been perceived and taught as a solitary endeavor (Yarrow & Topping, 2001). Yet, it is actually a social practice, since writers draw on a range of cultural, historical, and contextual resources to produce their texts (Daiute & Dalton, 1993; Heath, 1983; Rish, 2015).

Now, over the centuries, there *has* been a kind of dialogue taking place through writing. Julia Kristeva's concept of "intertextuality," which she coined in 1980, explained that the meaning of a text doesn't reside in a text itself but is produced by the reader and texts "dialogue" with one other (Kristeva, 1980). This has occurred in texts like the Bible, where we regularly see New Testament passages referring to, and even building on, passages from the Old Testament, and in modern texts like James Joyce's *Ulysses* which uses the structure and refers constantly to Homer's *Odyssey* or Jean Rhys' *Wide Sargasso Sea* which samples from Charlotte Brontë's *Jane Eyre*. Even modern animated stories from *The Simpsons* to *The Lion King* draw on previous texts, reminding us that no writing exists in a vacuum. But the dialogues they generate are between authors and texts, not authors and readers. They may fulfill the Socratic proposition of elicit, clarify, test, and decide, but only over protracted periods of time and only between a privileged set of readers and writers who have the ability to secure publication and circulation of their works. And so, they fulfill Socrates' objection because, by and large, for the general consuming public, these books and words are static (maybe even dogmatic) objects that represent past ideas. This kind of writing is neither active nor dynamic. This was writing's limitation, through the twentieth century.

So where does it leave us in the twenty-first century?

Reading, listening, writing, and speaking are the four skills traditionally associated with literacy (Berninger & Abbott, 2010). Despite the evidence that supports their integration, these skills are rarely taught together in school (Graham, 2020). Emerging technologies have added a new layer of complexity, as well as new dimensions to literacy, which scholars and practitioners are continually debating and redefining to reflect new and hybrid forms of expression that incorporate images, videos, audio, and other modes. Because of this, the traditional notion of literacy as the comprehension and generation of written texts (Juel et al., 1986) has given way to multiple and often overlapping redefinitions, including "new literacies," "digital literacies," and "multiliteracies" (Cope & Kalantzis, 2000; Lankshear & Knobel, 2011). Each of these new literacy concepts has its own particular emphasis, but most concur on three specific points: interactivity, multimodality, and context (Collier & Rowsell, 2014; Cope & Kalantzis, 2000; Rowsell & Walsh, 2011).

Most new definitions of literacy address interactivity and dialogue because digital media have enhanced the interactive, dialogic nature of communication, in the sense of Kristeva's intertextuality, but also Bakhtin's view of language as "a dialogue, a relationship with others" (Barton & Hamilton, 1998; Dyson, 1995). Thanks to the affordances of entertainment platforms and social media, dialogue and interactivity in the literacy space now occur between texts, authors, and readers (Kress, 2003), or content, creators, and consumers (Honigman, 2022), not just between texts and authors.

For learning, in general, and literacy learning, in particular, it leaves us on a most exciting precipice. If we jump off without care, however, we might not get where we want to go. But, if we handle it intelligently, boldly but with caution and an appreciation of lessons gleaned from past experiences, we face an exciting prospect, the potential to transform literacy learning and writing in particular, into the dialogic ideal that Plato and Socrates envisioned, and taking it to new and unexpected levels.

13.3 (Not so) New Literacy Practices

School is just one of many places where children learn to read and write (Black, 2005; Kress, 2010; Vygotsky, 1978), and many scholars have advocated bringing out-of-school reading and writing practices into the classroom (Alvermann & Xu, 2003; Buckingham, 2003). James Gee (2007, 2013) has written exhaustively on gaming and the rich literacy learning it can provide, and other researchers have examined how children write and make meaning with content from popular media (Marsh, 2004, 2011; Wohlwend, 2009).

Gee (2013) tells us that:

> My own work and that of many others has pointed out that today, thanks to digital media, the conditions for optimal learning are often available outside of school in homes and in popular culture. Indeed, popular-culture activities have become more complex and also more linguistically and cognitively demanding than they have ever been before..... The

> changes that have been most important in digital media and society are ones that have led more and more people, young and old, to be (and want to be) participants not just spectators, producers and not just consumers, and experts even without formal credentials. (pp. 7–8)

In this section, we will look at a few literacy experiences that respond to Gee's criteria, to see how they may expand on our vision of what literacy is, what writing is, and how we might think about what matters when teaching it in the classroom.

13.3.1 The Fanfiction Phenomenon

One of the most potent and dynamic examples of out-of-school writing is the phenomenon of fanfiction.

Fanfiction offers, if not "the" answer, many clues about how and why writing—and literacy in general—is relevant and meaningful to young people growing up in an interactive age. Fanfictions are "original works of fiction based on forms of popular media such as television, movies, books, music and video games" (Black, 2005). Though today they are primarily created online, fanfiction texts circulated informally for decades through photocopies and zines distributed at conventions and other encounters (Jenkins, 1992). Fan writers "blur the distinction between reading and writing" by engaging with and interpreting the media they consume and practicing their craft with others (Jenkins, 1992). By reading, rereading, writing, and rewriting, fan writers both consume and produce (Storey, 1996), contributing to and expanding the body of knowledge around a "canonical text," the term for the original source fiction. They practice both co-construction (with the original author) and often multimodality, with images, songs, video, and other modes of expression incorporated into their new creations.

In recent years, the Internet has changed the face of fanfiction with interactive possibilities that further enhance the dialogic aspect of this largely self-motivated writing experience. Online fanfiction writers often take advantage of digitally enhanced text and art, hyperlinks, video, and games (Black, 2005). Equally relevant is the social dimension that always characterized fanfiction writing, which now unfolds on web sites where readers and writers engage in peer reviewing, mentoring, editing, proofreading, and workshop-style forums (Jenkins, 2004; Black, 2005, 2007). The Internet has helped fanfiction writers broaden their horizons and tighten their communities, since circulation is no longer restricted by the impositions of paper, print, and the institutional publishing world (Ramdarshan Bold, 2018). As of June, 2010, the largest fanfiction archive in the world, FanFiction.Net, contained over three million works (Fan Fiction Statistics - FFN Research, 2011), and at present, it has millions of regular users and works in over 30 languages. Author- and subject-specific sites, from Jane Austen to Harry Potter, also abound (Black, 2007). It is extremely telling that the majority of the writers on FanFiction.Net are adolescents (Black, 2009)—precisely the same age group whose underperformance on

standardized reading and writing evaluations is so worrying to many education experts.

Fanfiction is an overwhelmingly motivating phenomenon that is extremely auspicious for stimulating young people's literacy development (Curwood et al., 2013; Lammers et al., 2021). It is especially exciting to observe among novice writers, for whom the protective anonymity of digital platforms and the "play-acting" quality of fanfiction can make writing less threatening (Buckingham, 2003). Pre-existing settings and characters that they know and love can allow them focus on more process-related aspects of writing (Jenkins, 2004). Today, there is a wild array of movies and television series accessible on mainstream entertainment platforms, spanning every imaginable genre for every imaginable audience—from sci-fi series like *Stranger Things* to the Marvel universe with all the scenarios and characters it can provide beginning writers.

Popular culture and fanfiction can help bridge the divide between kids' intensely interactive out-of-school practices and the more passive and less choice-driven nature of their in-school literacy activities (Buckingham, 2003). With good teacher mediation, it can help them develop critical attitudes about the media that inform their work (Alvermann & Xu, 2003; Black, 2009; McCarthy & Murphy, 2014), and it gives them a canvas for experimenting with other semiotic modes for meaning-making (Jewitt, 2006; McLean & Rowsell, 2015). In her study of adolescent girls' involvement in online fanfiction communities, Thomas (2006) found that fanfiction gave them an outlet for voicing relevant issues, which made writing more meaningful and motivating for them. Fan writers don't reproduce what they've read; they rework, reconfigure, and appropriate what they read (Jenkins, 1992; Storey, 1996) through a process that reflects the dialogic ideas posed by Plato and Vygotsky and that reflects their own process of sifting through characters, plots, and settings to identify what matters to them—and this aspect of fanfiction is what might be especially interesting for a writing teacher to explore, from upper elementary school to high school.

Adapting fanfiction for students is a topic that is receiving more and more attention from researchers at the secondary school level (Curwood et al., 2013; Fields et al., 2014; Magnifico et al., 2018), and a few studies have started to examine how elementary schoolers are engaging with fanfiction (Hutchison et al., 2016). For some time, there has been a tension surrounding the idea of incorporating popular culture practices in the classroom (Jenkins, 2004; Thomas, 2006). Students are sometimes reluctant about bringing their "outside" lives inside the school space for the sake of Learning (with a capital "L"), and there remains a sense among educators that too much popular culture could "dumb down" literacy instruction (Marsh & Millard, 2000). This is compounded by a lingering belief that fanfiction is not a legitimate practice for promoting literacy learning (Barnes, 2015), even though literature scholars know that writers have always drawn inspiration from other works of literature. Fanfiction is as much an example of intertextuality as the many literary works that have conversed with other texts, such as Shakespeare's *All's Well that Ends Well*, based on characters from Boccaccio's *Decameron* (Cole, 1981), or Tom

Stoppard's *Rosencrantz and Guildenstern are Dead*, based on two characters from Hamlet.

Elicit, clarify, test, and decide. The four steps of the Socratic learning method, that dialogic method of acquiring knowledge and refining beliefs, are alive and well on FanFiction.Net, Archive of Our Own, and the hundreds of other online affinity spaces for fanfiction readers and writers. Writers write. Their peers comment and make suggestions. Writers revise. Then, together, they decide. This is Socratic dialogue in action, and the intrinsic motivation driving the fanfiction writers' devotion to their craft is evident, as is the dynamic sparring that takes place through writing, preventing the "forgetfulness" that Socrates feared, because the dialogue of fanfiction spaces, though not face-to-face, and sometimes even not synchronous, is nevertheless present enough to function at the rate of real life, real conversation—or at least pretty close to it. And, moreover, it does so without the interference of power structures such as the academy or the conventional publishing industry.

13.3.2 The Wattpad Revolution

The idea is so brilliant; it almost seems too obvious: created in 2006, Wattpad is a digital platform with a social media spirit where diamond-in-the-rough writers—unknown, unpublished, uncelebrated—might post their original fiction and not only find their niche and their readers but get feedback and make connections with them as well (Wattpad, 2021). For readers, it's a wide-open library of all kinds of writing—including fanfiction as well as many other genres—that they may read for free. For writers, it's a place to test their work, to comment with peers, to propose stories and then receive feedback, to improve their texts, and to cultivate an engaged, participatory fan base. But these fans aren't silent admiring groupies—they are people with ideas and opinions, too (Ramdarshan Bold, 2018).

Wattpad, like FanFiction.Net or Archive of Our Own, emerged as a central space for unpublished writers and became such a phenomenon that conventional publishers caught on and began finding talent there and conventionally published authors also began to appear here in order to reach new readers or, better put, a new *generation* of readers hungry to connect with the authors they read, to enjoy a more horizontal relationship than previously existed between authors and readers.

13.3.3 The Wiki World

What would you get if you had a web site where anyone could edit or add anything? "Boredom, I guessed, or chaos. Boy, was I wrong. You get hundreds, thousands of pages full of information, ideas, conversations, learning, and teaching. You get linkages among ideas, conversations among people. You get a tool for business, a tool for people. You get copies and replicas all over the world. You get … the wiki." (Leuf & Cunningham, 2001, pp. xvi).

With these words, Leuf and Cunningham (2001) capture the essence of the wiki, a web-based publication collaboratively written, edited, and managed by its own audience.

Having changed the way we think of libraries, archives, encyclopedias, and reference material in general, wikis are intended to be simple so that users might focus on the writing rather than the design or HTML; open to facilitate information sharing; and socially driven so that many authors might work on the same text at once (Cunningham, 2002).

Cunningham, the pioneering programmer-inventor of the wiki and owner of the software company, C2, where the first wiki resided, intended it to be "a freely expandable collection of interlinked web 'pages,' a *hypertext system* for storing and modifying information – a *database*, where each page is easily edited by any user with a forms-capable Web browser" (Leuf & Cunningham, 2001, p. 14). Called "the post-it note of the web," the wiki is, at its heart, a collaborative tool for gathering, revising, validating, and disseminating knowledge in a "free-form, yet structured way" (Cunningham, 2002). Its collaborative nature is inherently dialogic and consensus-based, introducing a democratic spirit to the notion of information sharing, consensus building, and truth seeking. As Leuf and Cunningham (2001) note, wikis "seek to involve the visitor in an ongoing process of creation and collaboration that constantly changes the web site landscape…" A wiki is unusual "because of its total freedom, ease of access and use, simple and uniform navigational conventions, and apparent lack of formal structure. Wiki is also a way to organize and cross-link *knowledge…*" (p. 18). Wikipedia itself uses sources verified by its users, and wikis in general function in the same way; they are verified by the collaboration and consensus of users who may add, dispute, correct, or even remove data that is believed to be incorrect; for this reason, it is so ideal as a venue for learning.

Over time, the wiki evolved into an ideal venue for fans—of TV shows, movies, video games, and any form of mass entertainment—to participate actively in their fan worlds, contributing, sharing, trading, and disseminating information in a single and expandable space. Almost the Web 2.0 outgrowth of fanfiction culture, Fandom (later known as Wikia), became one of the main wiki hosting services exclusively dedicated to entertainment. Another example of user-generated content, Fandom/Wikia allows "regular people" to collaborate in the interest of sharing and disseminating information on a specific subject (or media product) of their admiration. Fan wikis are a vehicle for fan engagement, for they structure fans' participation, giving them spaces for different forms and modes of content. Becoming exponentially more robust as its base of writers and editors grows, wikis proved to the world that "collective contributions can yield authoritative results" (Mittell, 2009). Like fanfiction sites, fan wikis give voices to people who might otherwise not have a space to be seen and heard, giving rise to an affinity space comprised of intrinsically motivated participants—people who write and read, copiously, for the contentment it brings them, for no particular reward beyond the satisfaction of sharing a common interest with a far-flung but tightly knit community.

Not surprisingly, wikis have indeed found their space in learning contexts, too, and are especially popular as tools for second-language learning (Storch, 2011), for

science and other subjects (Lau et al., 2016), and also in primary school writing instruction (Li et al., 2014; Woo et al., 2011). Its beauty lies in its creative, collaborative nature. With wise guidance, students stand to learn a great deal through group assignments, for wikis give them an open-ended structure for organizing and presenting information, and the collaborative nature of the work of building a wiki can turn a writing assignment into something far more meaningful—an opportunity to understand one's peers, relate to and negotiate with them, work toward a common goal, and produce a collective final project or product. In this sense, "learning to write" truly can become "writing to learn."

13.4 Best Practices, Old and New

Just a decade or two into the twenty-first century, it has already become abundantly clear that students must learn how to write and communicate for different purposes and different readers, and they need to be able to adapt to a range of modes and technologies (Merchant, 2007, 2012). The changes presently being wrought in the modern workplace—which will continue to unfold more over the next few years—are making workers ever-more reliant on written communication in order to fulfill professional tasks, especially in light of the turn to remote work situations following the pandemic. If effective written expression was considered an extremely important workplace skill before Covid (Graham et al., 2015), it is now more critical than ever as the corporate, industrial, and academic realms adjust to the "new normal" of distanced living, working, and learning.

In 2012, professionals spent an average of 28% of their work week writing. The percentage since then has skyrocketed; writing is now a critical, constant activity in workplace settings and not only among "professional" or "career" writers but a range of workers with different roles and educational backgrounds, whose job may not be dedicated to communication but involves writing as a professional tool. Beyond journalists, editors, technical writers, and communications specialists, there is a realm of professionals whose work depends on effective writing: teachers and professors, lawyers and politicians, doctors and nurses, engineers, merchants, and managers of every stripe (Schriver, 2012).

Work-related writing demands today are diverse. Even those professionals who are not regarded as writers per se must be able to write a range of complex texts (Ortoleva et al., 2016): from emails and memos to project briefs, financial reports, and complicated scientific formulas, frequently for a diversity of audiences (Breuer & Allsobrook, 2019): a cocktail of diabetes medications, for example, is expressed in one way between members of the medical profession and in quite another way when expressed between doctor and patient.

In many professional settings, writing often is a collaborative effort between workers and different stakeholders (Schrijver & Leijten, 2019), and there exists a range of strategies for successful collaborative writing in the workplace (Lowry et al., 2004). Yet, though writing is high on employers' lists of desirable skills, not

enough candidates measure up (Burning Glass Technologies, 2015). This is unsurprising but worrying, given that the rise in remote work has made writing even more critical in professional contexts.

Technological and social developments over the past decade have stimulated the remote working phenomenon (Manzini Ceinar & Mariotti, 2021), and the Covid-19 pandemic intensified the trend: by March 2020, two-thirds of knowledge workers in North America were working remotely (Canzanese, 2020), and though the exact future of this trend is unclear, remote work appears to be firmly fixed in the professional sphere, particularly in knowledge industries. This makes writing even more critical.

13.4.1 What the Research Says About Writing Instruction

What do we know about learning to write? By the end of primary school, students are expected to master a wide range of skills, from handwriting and typing to planning and revising (Graham, et al., 2012). The passage from idea generation to finished product is a long and onerous one, and research shows that stage- and process-based strategies and scaffolds can be very effective for helping primary school students understand and interiorize the steps involved in producing good writing (Graham, 2006; Zumbrunn & Bruning, 2013). With its cognitive orientation, the process approach focuses on planning, drafting, revising, and editing (Englert & Raphael, 1988) and helps learners to become aware of the writing process itself. The contextual view of writing (Street, 1984), which understands writing development as firmly rooted in context, proposes writing for real purposes and audiences and learning strategies and conventions through practice (Bahr et al., 1996). It offers a vision of writing as inextricably linked to the environment in which it is produced, which may or may not reflect the school writing context/environment.

The Common Core State Standards in the United States largely reflect the cognitive research on writing. Across the grades, the Common Core State Standards propose four categories: (1) text types and purposes, (2) production and distribution of writing, (3) research to build and present knowledge, and (4) range of writing. For (1), students need to understand how to craft literary, informational, and persuasive texts and how to appropriately tailor their texts to specific audiences. For (2), they must learn how to produce texts from blank page to drafts to finished final revision—in other words, to understand the different steps involved in writing. For (3), they must learn to navigate the very tricky field of research, with the goal of identifying information, verifying it, and assimilating it into a coherent piece of writing. The last item, entitled "range of writing," refers to the importance of sustaining long-term writing projects, of encouraging a daily writing practice, and of writing over extended time frames, precisely to give students time they need to properly develop their writing.

We *also* know that students make an effort when they are interested and motivated (Dewey, 1913) and they become motivated when they are given the freedom

to write about topics that interest them (Boscolo & Gelati, 2013). And if students engage in active, constructive literacy pursuits that are both rewarding and challenging, they will take more risks, think reflectively, and grow as writers and learners (Gee, 2007).

What do “active, constructive literacy pursuits” look like? They involve writing, certainly, but they also connect writing to the other language skills, so that students may, for example, engage in a writing assignment and then speak about what they’ve written, read texts and then write about them, and listen to poetry and songs, see words on the page, and then write about them or recreate them in other ways. Again, many teachers have been engaging in these kinds of practices for decades—what matters here is that the digital format makes them more accessible. We can write a mostly text-based paper and then transform it into a mostly image-based PowerPoint and present it to a teacher or our peers. We can go to YouTube and watch a poet read his words aloud while reading them on the screen. If we’re lucky, a singer-songwriter might have taken those poetic words and put them to music, and then we have an even more memorable learning journey that combines sight and sound, words and music (Leonard Cohen’s musicalized translation-interpretations of Federico García Lorca’s poems are one fascinating example of this).

A fair body of research shows that well-designed collaboration is valuable for writing instruction (Mak & Coniam, 2008; Sørensen & Levinsen, 2015). Yet, learners also need teacher guidance, structure, and strategies, all of which are key to the process of writing instruction, helping students to plan, organize, draft, and revise their writing (Bahr et al., 1996; Graham et al., 2013). It is easy to point out that, in theory, “learning is social” or that “we learn from each other”—this may be true but it doesn’t happen magically. As teachers, when we take evidence-based practices such as peer review of student writing (Crinon & Marin, 2010; Hoogeveen & Van Gelderen, 2013), structure the experience in a way that makes sense, and facilitate them with, for example, tracked changes or sticky notes, the results can be transformative because they generate a dialogue between students and teacher.

Research also shows that students fare well when they practice writing for authentic reasons and for real audiences (Graham et al., 2015) and when it builds on their unique social and cultural strengths and experiences (Freeman & Freeman, 2006). Though the details of social and emotional learning (SEL) are beyond the scope of this chapter, research has asserted the value of using writing as a tool for exploring social and emotional issues (Storey, 2019), a topic that has gained traction of late, given the upheaval of recent years in the wake of Covid.

13.4.2 Pedagogical Implications and Directions

Two decades into the twenty-first century, how might we reflect on past research, curricular standards, and accumulated wisdom to prepare students for a future of writing that is largely digital? I began this chapter talking about Plato and Socrates, for three purposes: (1) to compare their “age of anxiety” with the cultural and moral

panic surrounding the rise of various communications technologies in the twentieth and twenty-first centuries, (2) to underscore the continued relevance of their ideas about dialogue and knowledge, and (3) to show how digital technologies are allowing us to fulfill, so many years later, their beliefs about knowledge acquisition.

Writing is the focal point of this book. As the researchers have told us, it is an extremely complex skill to master. Today, in 2022, there is so much at stake for our students: to be active and engaged in their professional and personal lives, they need to develop all the skills pointed out in the research and standards—the writing process, the mechanics of writing, the difference between literary genres, and learning to write for different audiences—in order to be effective and lucid communicators. But there is something else. If they want to avoid getting lost in the all-enveloping universe of information in which they live, they must learn to become discerning thinkers, readers, and communicators.

This, they can only do through dialogue, through listening and reading what someone else has to say, through speaking and writing about what they believe. Each of these language skills has something to offer the learning process, not just in the sense of "literacy learning" but in the sense of learning with all of ourselves: with our ears, eyes, mouths, and hands (Berninger, 2000). By *seeing* the other with our eyes, by *listening* with our ears, by *speaking* through our mouths, and by *writing* with our hands, we participate in a dialogue. But we need to engage all four of these senses and organs, because it is through this dialogue—as Socrates, Plato, Freud, Vygotsky, and McLuhan remind us—that we may grow as intellectual beings.

McLuhan (McLuhan & Fiore, 1967) reminds us that:

> Societies have always been shaped more by the nature of the media by which men communicate than by the content of the communication… It is impossible to understand social and cultural changes without a knowledge of the workings of media. (p. 9)

It is for this reason that it is so challenging to be a student of writing in the third decade of the twenty-first century. The research and experience of the past have given us a "roadmap" for the skills, practices, and strategies that work for developing good writers, but educators—particularly teachers in the classroom—would be wise to observe and learn about those digitally based activities their students are engaging in outside the classroom, to take full advantage of them for the seamless way they permit the practice of more than one language skill at the same time. Yes, it is a delicate balance. Yes, it is trial-and-error. But by paying attention to, and acknowledging the value, of the literacy-related activities students engage in outside the classroom, teachers will be able to craft their own activities that bridge the gap in a creative and productive way for in-school purposes.

Precisely by opening a dialogue with students, teachers can find a way into new forms of writing and writing instruction. In this chapter, I have outlined just a few out-of-school practices that seem useful for in-school writing instruction. Fanfiction presents tremendous opportunities for students to further develop stories that interest them while also focusing on specific skills that they need to develop as writers: they can work on plots, characters, motivations, and sequences. It also allows them to "rewrite" stories or characters that, perhaps, are antiquated, or stereotyped, or unsatisfying to them in some way. Teacher-guided assignments in fanfiction or

online fiction allow students to exercise their creativity and test their abilities and interests in different genres. The dialogic aspect of both these practices, exercised through peer review, comments, and revision, is invaluable for developing students' ability to hone their beliefs and arguments and their expression of them. Wiki writing, the last "phenomenon" cited in this chapter, opens the door to writing in a fascinating way, because it allows students to practice collaborative writing through the construction and editing of a shared document about a topic of common interest. Here, educators can group students by affinity groups in order to give them real-life, authentic collaborative writing tasks which, as we have seen, are an integral part of twenty-first-century work and civic life.

13.5 Final Remarks

In this chapter, I have hoped to offer some insights into how educators can think about bringing current trends in out-of-school reading and writing together with time-honored, evidence-based practices so that they may implement some more contemporary, experimental practices with students, knowing that they are based on the collective knowledge and wisdom we already have about how students learn to write and learn in general. While some researchers and practitioners are comfortable pushing the envelope with potentially "revolutionary" and "transformational" practices, there are many of us who, every semester, must start anew and wonder "what's going to work this year?" There are still many questions to answer. To what extent can or should the role of the teacher change? How might evaluations adapt and change in order to alleviate the burden that often prevents educators from delving more deeply into long-term writing assignments? There is plenty of light at the end of the tunnel: advances in natural language processing (NLP) and automated writing evaluations (AWE) offer a glimpse into a future in which teachers and machines each may focus on what they do best in order to best serve the needs of their students as well as the educational system that, naturally, requires evaluations of some form (Crossley et al., 2021; Kim & McCarthy, 2021; Wilson & Czik, 2016). As James Gee (2015) wisely reminds us, what matters "is where the person is going, not just where they have been…we survive by using the past to move to the future, not by lingering in the past."

As readers, writers, teachers, and educators, this is the wisdom that will see us well into the next phases of literacy learning and learning in general. As Plato, Socrates, Freud, and Vygotsky would agree, our learning is social. Only by exploring our past, our relationships, and the tried-and-true practices of old, in dialogue and context, will we arrive at new destinations in our pursuit of knowledge, with the security and wisdom of past experiences and the courage and anticipation of the new: elicit, clarify, test, and decide.

References

Alvermann, D., & Xu, S. H. (2003). Children's everyday literacies: Intersections of popular culture and language arts instruction. *Language Arts, 81*(2), 145–154.

AT21CS. (2012). *What are 21st-century skills? Retrieved 10 April, 2022, from* http://atc21s.org/index.php/about/what-are-21st-century-skills/

Bahr, C. M., Nelson, N. W., & Van Meter, A. M. (1996). The effects of text-based and graphics-based software tools on planning and organizing of stories. *Journal of Learning Disabilities, 29*(4), 355–370.

Barnes, J. L. (2015). Fanfiction as imaginary play: What fan-written stories can tell us about the cognitive science of fiction. *Poetics, 48*, 69–82.

Barton, D., & Hamilton, M. (1998). Understanding literacy as social practice. In *Local literacies: Reading and writing in one community* (pp. 3–22).

Berninger, V., & Abbott, R. (2010). Listening comprehension, oral expression, reading comprehension and written expression: Related yet unique language systems in grades 1, 3, 5 and 7. *Journal of Educational Psychology, 102*(3), 635–651.

Berninger, V. W. (2000). Development of language by hand and its connections with language by ear, mouth, and eye. Topics in Language Disorders, 20(4), 65–84.

Bereiter, C., & Scardamalia, M. (2013). *The psychology of written composition*. Erlbaum.

Black, R. (2005). Access and affiliation: The literacy and composition practices of English-language learners in an online fanfiction community. *Journal of Adolescent & Adult Literacy, 49*(2), 118–128.

Black, R. W. (2007). Fanfiction writing and the construction of space. *E-Learning and Digital Media, 4*(4), 384–397.

Black, R. W. (2009). Online fan fiction and critical media literacy. *Journal of Computing in Teacher Education, 26(2), 75–80.*

Boscolo, P., & Gelati, C. (2013). Best practices in promoting motivation for writing. In S. Graham, C. MacArthur, & J. Fitzgerald (Eds.), *Best practices in writing instruction* (2nd ed., pp. 202–221). The Guilford Press.

Botterill, J., Bredin, M., & Dun, T. (2015). Millennials' media use: It is a matter of time. *Canadian Journal of Communication, 40*(3), 537.

Breuer, E., & Allsobrook, P. (2019). Teaching and practising interdiscursivity in the professional areas of engineering and health—A qualitative study. *HERMES—Journal of Language and Communication in Business, 59*(1), 15–33.

Buckingham, D. (2003). Media education and the end of the critical consumer. *Harvard Educational Review, 73*(3), 309–327.

Burning Glass Technologies. (2015). *The human factor: The hard time employers have finding soft skills. E*. Burning Glass Technologies.

Canzanese, R. (2020). *Remote work increasing exponentially due to COVID-19*. https://www.netskope.com/fr/blog/remote-work-increasing-exponentially-due-to-covid-19 Accessed 19 April 2022.

Cole, H. C. (1981). *The All's well story from Boccaccio to Shakespeare*. University of Illinois Press.

Collier, D. R., & Rowsell, J. (2014). A room with a view: Revisiting the multiliteracies manifesto, twenty years on. *Fremdsprachen Lehren und Lernen* (2), 12.

Cope, B., & Kalantzis, M. (2000). Multiliteracies: The beginning of an idea. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures*. Psychology Press.

Crinon, J., & Marin, B. (2010). The role of peer feedback in learning to write explanatory texts: Why the tutors learn the most. *Language Awareness, 19*(2), 111–128.

Crossley, S., Wan, Q., Allen, L., & McNamara, D. (2021). Source inclusion in synthesis writing: An NLP approach to understanding argumentation, sourcing, and essay quality. *Reading and Writing*, 1–31.

Cunningham, W. (2002). *What is Wiki*. WikiWikiWeb. http://www.wiki.org/wiki

Curwood, J. S., Magnifico, A. M., & Lammers, J. C. (2013). Writing in the wild: Writers' motivation in fan-based affinity spaces. *Journal of Adolescent & Adult Literacy, 56*(8), 677–685.
Daiute, C., & Dalton, B. (1993). Collaboration between children learning to write: Can novices be masters? *Cognition and Instruction, 10*(4), 281–333.
Dewey, J. (1913). *Interest and effort in education*. Forgotten Books.
Dyson, A. H. (1995). Writing children: Reinventing the development of childhood literacy. *Written Communication, 12*(1), 4–46.
Englert, C. S., & Raphael, T. E. (1988). Constructing well-formed prose: Process, structure, and metacognitive knowledge. *Exceptional Children, 54*(6), 513–520.
Fan Fiction Statistics - FFN Research (2011, March 18). Retrieved October 17, 2014 from http://ffnresearch.blogspot.com
Fields, D., Magnifico, A., Lammers, J., & Curwood, J. (2014). DIY media creation. *Journal of Adolescent and Adult Literacy, 58*(1), 19–24.
Freeman, Y. S., & Freeman, D. E. (2006). *Teaching reading and writing in Spanish and English in bilingual and dual language classrooms*. Heinemann.
Freud, S., & Breuer, J. (2004). *Studies in Hysteria*. Penguin.
Gee, J. P. (2013). *Digital media and learning: A prospective retrospective*. Unpublished Manuscript.
Gee, J. P. (2007). *What video games have to teach us about learning and literacy*. Palgrave Macmillan.
Gee, J. P. (2015). *When learning and assessment diverge: Who and what are we assessing?* [unpublished manuscript]. Arizona State University.
Gottschalk, F. (2019). *Impacts of technology use on children: Exploring literature on the brain, cognition and well-being* (OECD Education Working Papers, NO. 195). OECD Publishing. https://doi.org/10.1787/8296464e-en
Graham, S. (2006). Writing. In P. Alexander, & P. Winne (Eds.), *Handbook of Educational Psychology* (pp. 457–478). Erlbaum.
Graham, S. (2020). The sciences of reading and writing must become more fully integrated. *Reading Research Quarterly, 55*, 535–544.
Graham, S., Gillespie, A., & McKeown, D. (2013). Writing: Importance, development, and instruction. *Reading and Writing, 26*(1), 1–15.
Graham, S., Harris, K. R., & Santangelo, T. (2015). Research-based writing practices and the common core: Meta-analysis and meta-synthesis. *Elementary School Journal, 115*(4), 498–522.
Heath, S. B. (1983). *Ways with words: Language, life and work in communities and classrooms*. Cambridge University Press.
Honigman, B. (2022, April 22). *TikTok isn't a social media platform, according to TikTok.* www.fastcompany.com. Retrieved 15 May 2022 from www.fastcompany.com/90746981/tiktok-social-video
Hoogeveen, M., & van Gelderen, A. (2013). What works in writing with peer response? A review of intervention studies with children and adolescents. *Educational Psychology Review, 25*(4), 473–502.
Horgan, J. (1996). Why Freud isn't dead. *Scientific American, 275*(6), 106–111.
Hutchison, A. C., Woodward, L., & Colwell, J. (2016). What are preadolescent readers doing online? An examination of upper elementary students' reading, writing, and communication in digital spaces. *Reading Research Quarterly, 51*(4), 435–454.
Jenkins, H. (1992). *Textual Poachers: Television, fans and participatory culture*. Routledge.
Jenkins, H. (2004, February 6). *Why Heather can write, technology review, 6. Retrieved January 7, 2015, from* http://technologyreview.com/articles/04/02/wo_jenkins020604.asp?p=1
Jewitt, C. (2006). *Technology, literacy and learning: A multimodal approach*. Psychology Press.
Juel, C., Griffith, P. L., & Gough, P. B. (1986). Acquisition of literacy: A longitudinal study of children in first and second grade. *Journal of Educational Psychology, 78*(4), 243.
Kilian, T., Hennigs, N., & Langner, S. (2012). Do Millennials read books or blogs? Introducing a media usage typology of the internet generation. *Journal of Consumer Marketing, 29*(2), 114–124.

Kim, M. K., & McCarthy, K. S. (2021). Improving summary writing through formative feedback in a technology-enhanced learning environment. *Journal of Computer Assisted Learning, 37*(3), 684–704.

Kress, G. (2003). *Literacy in the new media age*. Routledge.

Kress, G. (2010). *Multimodality: A social semiotic approach to contemporary communication*. Routledge.

Kristeva, J. (1980). *Desire in language: A semiotic approach to literature and art*. Columbia University Press.

Lam, F. (2011). *The Socratic method as an approach to learning and its benefits.* Dietrich College of Humanities and Social Sciences

Lammers, J., Magnifico, A., & Wang, A. (2021). Playful multiliteracies: Fan-based literacies' role in English language arts pedagogy. *Journal of Adolescent and Adult Literacy*. https://doi.org/10.1002/jaal.1253

Lankshear, C., & Knobel, M. (2011). *New literacies: Everyday practices and social learning*. Open University Press.

Lau, W. W., Lui, V., & Chu, S. K. (2016). The use of wikis in a science inquiry-based project in a primary school. *Educational Technology Research and Development*, 1–21.

Leontiev, A. (1981). The problem of activity in psychology. In J. V. Wertsch (Ed.), *The concept of activity in Soviet psychology* (pp. 37–71). M.E. Sharpe.

Leuf, B., & Cunningham, W. (2001). *The Wiki way: Quick collaboration on the web*. Addison-Wesley Longman Publishing.

Li, X., Chu, S. K. W., & Ki, W. W. (2014). The effects of a wiki-based collaborative process writing pedagogy on writing ability and writing attitudes among upper primary school students in Mainland China. *Computers & Education, 77*, 151–169.

Lowry, P., Curtis, A., & Lowry, M. R. (2004). Building a taxonomy and nomenclature of collaborative writing to improve interdisciplinary research and practice. *International Journal of Business Communication, 41*(1), 66–99.

Magnifico, A. M., Lammers, J. C., & Fields, D. A. (2018). Affinity spaces, literacies and classrooms: Tensions and opportunities. *Literacy, 52*(3), 145–152.

McCarthy, D., & Murphy, B. (2014). The challenge of supporting literacy in a digital age: perspectives of Irish primary school teachers. Irish Teachers' Journal, 2(1), 15–32.

McLean, C. A., & Rowsell, J. (2015). Imagining writing futures: Photography, writing, and technology. *Reading & Writing Quarterly, 31*(2), 102–118.

McLuhan, M., & Fiore, Q. (1967). *The medium is the massage*. Random House.

Mak, B., & Coniam, D. (2008). Using wikis to enhance and develop writing skills among secondary school students in Hong Kong. *System, 36*(3), 437–455.

Manzini Ceinar, I., & Mariotti, I. (2021). Teleworking in post-pandemic times: May local coworking spaces be the future trend? *Romanian Journal of Regional Science, 15*(1), 52–76.

Marsh, J., & Millard, E. (2000). *Literacy and popular culture: Using children's culture in the classroom.* Paul Chapman.

Marsh, J. (2004). The techno-literacy practices of young children. *Journal of Early Childhood Research, 2*(1), 51–66.

Marsh, J. (2011). Young children's literacy practices in a virtual world: Establishing an online interaction order. *Reading Research Quarterly, 46*(2), 101–118.

Melo, C., Madariaga, L., Nussbaum, M., Heller, R., Bennett, S., Tsai, C.-C., & van Braak, J. (2020). Editorial: Educational technology and addictions. *Computers & Education, 145*, 103730.

Menand, L. (2017). Why Freud survives. *The New Yorker*, 21.

Merchant, G. (2007). Writing the future in the digital age. *Literacy, 41*(3), 118–128.

Merchant, G. (2012). Mobile practices in everyday life: Popular digital technologies and schooling revisited. *British Journal of Educational Technology, 43*(5), 770–782.

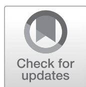
Mittell, J. (2009). Sites of participation: Wiki fandom and the case of Lostpedia. *Transformative Works and Cultures, 3*. https://doi.org/10.3983/twc.2009.0118

New London Group (NLG). (1996). A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review, 66*(1), 60–92.

Ong, J. W. (1982). *Orality and literacy: The technologizing of the word*. Methuen.
Ortoleva, G., Bétrancourt, M., & Billett, S. (2016). *Writing for professional development*. (Studies in Writing, Vol. 32). Brill. https://doi.org/10.1163/9789004264830
Partnership for 21st Century Skills. (2006). *Framework for 21st century learning*. Retrieved from http://www.p21.org/documents/ProfDev.pdf
Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon, 9*(5), 1–6.
Ramdarshan Bold, M. (2018). The return of the social author: Negotiating authority and influence on Wattpad. *Convergence, 24*(2), 117–136.
Rish, R. M. (2015). Researching writing events: Using mediated discourse analysis to explore how students write together. *Literacy, 49*(1), 12–19.
Rowe, C. J. (1986). *Plato: Phaedrus*. Penguin Classics.
Rowsell, J., & Walsh, M. (2011). Rethinking literacy education in New Times: Multimodality, Multiliteracies, & New Literacies, *Brock Education, 21(1), 53–62.*
Schrijver, I., & Leijten, M. (2019). The diverse field of professional writing: Current perspectives on writing in the workplace. *Hermes-Arhus, 59*(1), 7–14.
Schriver, K. (2012). What we know about expertise in professional communication. In V. Berninger (Ed.), *Past, present, and future contributions of cognitive writing research to cognitive psychology* (pp. 275-312). Psychology Press.
Sørensen, B. H., & Levinsen, K. T. (2015). Emerging collaborative writing strategies in digital environments. In *European conference on e-learning*. (576). Academic Conferences International Limited.
Storch, N. (2011). Collaborative writing in L2 contexts: Processes, outcomes, and future directions. *Annual Review of Applied Linguistics, 31*, 275–288.
Storey, J. (1996). *Cultural studies and the study of popular culture*. University of Georgia Press.
Storey, M. (2019). Engaging minds and hearts: Social and emotional learning in English language arts. *Language and Literacy, 21*(1), 122–139.
Street, B. V. (1984). *Literacy in theory and practice* (Vol. 9). Cambridge University Press.
Thomas, A. (2006). Fan fiction online: engagement, critical response and affective play through writing. Australian Journal of Language and Literacy, 29(3), 226–239.
Vygotsky, L. S. (1962). *Thought and language*, trans. Eugenia Hoffmann and Gertrude Vakar. MIT Press.
Vygotsky, L. (1978). *Mind in society*. Harvard University Press.
Wattpad. (2021). https://company.wattpad.com/blog/naver-completes-wattpad-acquisition
Wilson, J., & Czik, A. (2016). Automated essay evaluation software in English language arts classrooms: Effects on teacher feedback, student motivation, and writing quality. *Computers & Education, 100*, 94–109.
Wohlwend, K. E. (2009). Damsels in discourse: Girls consuming and producing identity texts through Disney princess play. *Reading Research Quarterly, 44*(1), 57–83.
Woo, M., Chu, S. K. W., Ho, A., & Li, X. (2011). Using a Wiki to scaffold primary-school students' collaborative writing. *Educational Technology & Society, 14*(1), 43–54.
Yarrow, F., & Topping, K. J. (2001). Collaborative writing: The effects of metacognitive prompting and structured peer interaction. British Journal of Educational Psychology, 71(2), 261–282.
Zumbrunn, S., & Bruning, R. (2013). Improving the writing and knowledge of emergent writers: The effects of self-regulated strategy development. *Reading and Writing, 26*, 91–110.

Part V
Teaching and Learning Writing in the Classroom

Chapter 14
Teaching Writing Through Discourse Genres



Carmen Rodríguez-Gonzalo and Victoria Abad-Beltrán

14.1 Introduction

The teaching of writing has experienced numerous changes based on three main variables: what is known about the written word and the act of writing, the educational population being taught to write, and how and for what purpose writing is used in everyday life in the twenty-first century.

In the first case, studies on writing have been carried out from two main perspectives: the text and the person who is writing. The text has been addressed by the language sciences: literature has explored the specificity of the literary text, whereas linguistics has defined the characteristics of the text as a unit that differs from the sentence. Linguistics has to consider the elements of the communication situation to explain, for example, the text's suitability for the context or the intersection between known and new information, in order to achieve coherence among the ideas. In addition, the variety of discourses through which the texts are expressed, such as situated social practices, shows the importance of the *genre*. Discourse genres detect the social presence in the writing and the changes it experiences depending on the social demands at each historical moment.

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Moreover, the generalization of educational systems made it necessary to consider the differences between novice writers and expert writers, in order to define the path of teaching progress in accordance with the complexity of the students' tasks. Beyond essays and dictations, writing must serve to present ideas, explain situations, defend opinions in different situations, or explore the student's creativity. The increase in opportunities to enter the university has also made it necessary to consider the complexity of epistemic writing, which allows access to the ways of thinking in the different knowledge areas.

How do all these changes affect the teaching of writing? We have gone from understanding writing as the transcription of orality and a skill reserved for only a few to considering it an indispensable social activity for any citizen in the twenty-first century. We now know that writing requires intricate cognitive processes whose mastery explains the transition from a novice writer to an expert writer, and it is clear that writing is quite complex, given the many discourse genres in which it appears.

These are the questions we address in this chapter. First, we briefly refer to the models that explain the writing process and their specific elements. Next, we focus on the genre as a basic discourse unit for teaching writing as a situated activity. Third, we present four didactic sequence (DS) models as explicit teaching proposals based on the dual consideration of writing as process and as situated activity (the Sydney School *genre-based pedagogy*, the DS model of the Geneva School, the model of *didactic sequences for learning to write* by Camps and the Greal group, and the DS model for academic writing by the Didactext group). All of these models are organized around the discourse genre as the center of the writing activity.

14.2 The Writing Models: From the Cognitive to the Socio-cognitive Perspective

Cognitivism aims to demonstrate the learning processes in order to understand the mental functioning of the students (how they represent the tasks and the strategies they use). In contrast, the socio-cognitive models view writing as a situated activity, that is, a social practice that is typified in discourse genres. Thus, the focus is on the interactions between individuals and between individuals and their social context.

14.2.1 Writing as a Process

The model by Flower and Hayes (1980) is the first cognitive model of reference for teaching writing by focusing on the process, and it led to studies on the cognitive strategies employed while writing. Their studies show that, during writing, the

operations of planning, textualization, and revision are activated and that the elaboration of the text begins at the moment the writer imagines the task and establishes some objectives. In addition, the authors develop the concept of control and, by extension, the need for metacognitive abilities to regulate the writing. Although they introduce the concept of recursion in writing, a linear sequencing conception of the writing process is still implicit in their model. Flower and Hayes (1981, p. 366) develop the keys to this model that conceives of writing as a set of mental processes that writers hierarchize depending on their objectives.

Bereiter and Scardamalia (1987) created the second cognitive model of reference for teaching writing. In their studies, they distinguish between two written composition models: *knowledge telling* and *knowledge transforming*. *Knowledge telling* is a written composition model that reduces the complexity of the process. The writer approaches this task without addressing the rhetorical situation. In contrast, according to the *knowledge transforming* model, writing is a progressively complex task, given that writers have to consider how to adjust their knowledge to the rhetorical situation in which it is inscribed. This complexity presents cognitive conflicts the writer has to resolve. By facing and solving these conflicts, the writer expands his or her written competence in a process approaching epistemic writing.

In the revision, the strategies used would also be different: in *knowledge telling*, there are no important changes in the text, whereas in *knowledge transforming*, there are modifications of the text structures to adapt them to the ideas that will appear in the text.

Thus, cognitive models help to understand and develop teaching models that take into account the different stages of the process (Álvares et al., 2010, p. 60), but they do not consider the social, political, and historical contexts (Prior, 2006, p. 54).

14.2.2 Writing as Situated Activity

In the 1980s, research began to highlight the social and interactive nature of writing, and in the 1990s, the cognitive paradigm is transcended, and the socio-cognitive model has consolidated.

Some authors, such as Englert et al. (2006, p. 208), refer to this model as the sociocultural theory of writing: “Sociocultural theory seeks to understand how culturally and historically situated meanings are constructed, reconstructed, and transformed through social mediation […] sociocultural theory views meaning as being negotiated at the intersection of individuals, culture, and activity.”

According to these authors, the sociocultural theory is based on three principles: the socio-cognitive approach to learning to write, procedural facilitators and tools, and communities of practice.

The first principle, the socio-cognitive approach to learning to write, consists of the need to offer socio-cognitive learning that helps learners to participate in and

develop a discipline, that is, to acquire the discourses, tools, and actions of these disciplines. This involves studying the role of the expert or teacher in developing ways to access this knowledge or co-participation in the classroom, that is, the interactive and collaborative discourse between the teacher and the student or among the students.

The second principle, procedural facilitators and tools, is based on providing the classroom with tools to create *scaffolding*, so that the students regulate the writing.

The third principle, communities of practice, focuses on establishing communities that emphasize the construction or dissemination of knowledge. Participation in these communities, on the one hand, facilitates learners' appropriation of conventions, standards, genres, and values and, on the other, requires learners to become proficient in speaking, reading, and writing within that community.

Russell's (2010) theory of multiple contexts synthesizes the key points of Vygotsky's theory of cultural-historical activity and genres as social action. It establishes that texts cannot be studied apart from their context because they are defined by the context: "Texts are given life through activity, through use in context(s)" (p. 353). Thus, writing is learned and produced in certain social circumstances. In this way, this author overcomes the duality of text and context by viewing texts as dynamic systems or networks with interconnected elements. This dynamic network encompasses both the participants and the material tools they use for a purpose and to obtain a result.

Bazerman (2016) explains the contributions of the sociocultural approaches to studies on writing:

- One writes to participate in different social spheres. In fact, developing as a writer in a community is part of a socialization and cultural appropriation process.
- The audience takes on a central role in writing because (a) planning, which includes decisions about writing and representing the text, involves spending time gathering information about the social situation and the appropriate resources for that situation and (b) readers assess the quality of a piece of writing and assign an identity to the text and to the writer.
- Writing is produced through interactions with previous texts.
- Through social participation, writers construct a perception of others and a perception of their own identity and existence based on the way they think they are perceived by others.
- The development of writing skills depends on moving between different situations of use. Each situation requires solving new problems because, when going from one social setting to another, it is necessary to adjust one's writing skills, learn new ones, and transform knowledge from previous experiences.

14.3 The Genres of Discourse

14.3.1 Diversity in Discourse Genres

Discourse diversity is, first, a consequence of the fact that speech acts are motivated by very different intentions. This variety of purposes can be grouped into two main types of *functions*, the *ideational* or *representative function* and the *interactive* or *interpersonal function* (Halliday, 1982), which correspond to two main axes of linguistic use: the transmission of information about entities, events, processes, etc. and the expression of interpersonal relationships. These functions determine two basic uses of language: to learn (representational function) and to communicate with others (interactive function), with fundamental educational implications. The use of language for learning, particularly written language, is the starting point for proposals such as *teaching reading and writing across the curriculum*, *teaching reading and writing to learn*, or *teaching through the disciplines* (Álvarez Angulo, 2010; Carlino, 2005; Rose & Acevedo, 2017; Rose & Martin, 2012; Tolchinsky & Simó, 2001).

Second, discourse has different characteristics depending on social settings where it is used. The social setting or context determines important aspects for communicative interaction, such as the roles played by the participants and the relationship or degree of social distance established between them. In turn, these characteristics of the interaction will be reflected in the linguistic, textual, and paratextual form of the texts resulting from the discourse activity.

All these factors, the variety of speech acts and their functions and the diversity in the settings of social activity, explain the existence of different discourse genres (classes of texts, according to the term used in the theoretical framework of PISA) through which the verbal activity takes place. Genres, as text forms available in a given historical-cultural context to satisfy communication needs, are organized in *nebulas*, with diffuse and mobile boundaries, and so they resist definitive classification (Bronckart, 2004, p. 68). They are "relatively stable types of statements" (Bajtín, 1982, p. 248) available to speakers who, depending on their situation and communicative needs, choose the appropriate genre, as particular preconstructions of a natural language. There is a great richness and diversity of the discourse genres because the possibilities of human activity are inexhaustible and, as Bajtín states, "in each sphere of praxis, there is a whole repertoire of discourse genres that is differentiated and grows as the sphere itself develops and becomes more complicated" (Bajtín, 1982, p. 248). Thus, every discourse genre is characterized by belonging to an area of use, by having a certain function and an established relationship between the speakers, and by selecting certain topics and presenting certain formal characteristics (linguistic, textual, and paratextual).

Changes in the forms of communication entail the incorporation of new genres in all areas. We mention, as examples, some that involve reading and writing in digital environments: in interpersonal communication (*whatsapps*, tweets, e-mails, forums), in public life (blogs, personal pages, pages of associations, institutions,

companies, etc.), in the media (cybermedia), and in academia (websites for transmitting knowledge, *webquests*, digital stories, treasure hunts, *wikis*, or collaborative writing) (Cassany, 2012; Zayas, 2009).

The linguistic characteristics of texts, determined by the circumstances in which the discourse takes place, the situational context, constitute the register, which Halliday (1982, p. 146) defines as "the configuration of semantic resources that the member of a culture typically associates with a type of situation; it is the potential for accessible meaning in a given social context." According to this author, although the register is defined in terms of meaning, it can be recognized as a certain selection of words and structures.

Thus, linguistically characterizing a given discourse genre involves identifying its register. This characterization is based on three factors which correspond (not univocally) to the elements referred to as *field*, *tenor*, and *mode* by Halliday (1982, p. 48) and again by Reyes (1999, p. 49 ff.) for the same purpose. The *field* refers to the institutional framework in which a statement is produced, and it includes not only the topic of the discourse (whose degree of specialization) but also all the activity of the speaker (or speakers) in a given framework. It includes, therefore, the topic and the intention. The *tenor* refers to the relationship between the participants (level of formality, in our formulation), and the *mode* refers to the channel of communication.

We have shown genres as groupings of texts that fulfill similar social functions and have certain formal characteristics in common. They are cultural products that have codified the ways certain meanings are expressed, and, therefore, "they provoke expectations that must automatically be met in order to achieve the intended construction of meaning" (Reyes, 1999, p. 18). Thus, the receiver recognizes the genre by its conventions, and this recognition conditions its listening or reading: for example, we do not read a journalistic news item in the same way as a literary story. The sender, however, has to respect the conventions of the genre in which he/she is writing in order for the text to be correctly interpreted.

Along these lines, according to sociocultural approaches, genres are frameworks for social action. Participants recognize these texts as belonging to the same written genre as long as the texts operationalize the participants' actions in the activity system (Bazerman, 1994).

From this perspective, the genre is embedded in a network of social activities; in other words, genres exist in the "construction zones" (Russell, 1995) or participation contexts where a given activity takes place. They are, thus, forms mediated by typified tools that allow interaction in a certain social practice. In fact, texts can share a series of formal characteristics without belonging to the same genre because they are not all used to mediate the same actions of an activity system; in other words, a text can function as different genres if participants interact in different activity systems; for example, a text such as the Bible can function as different genres (literary work, sacred text, or cult object), depending on whether the participants view it as a work with an aesthetic purpose, as a theological source, or as a text to be read in a place of religious worship (Russell, 1997).

The theory of multiple contexts defines genres as traditions for using certain tools that offer, on the one hand, a panorama of possible actions and objectives and, on the other, interrelationships between subjects, objects, and tools: "the ongoing use of certain material tools in certain ways that people recognize as having worked once and might work again, a typified, tool-mediated response to conditions recognized by participants to be recurring" (Russell, 2010, p. 357). According to Bazerman (2016), genres help writers to understand the situations in which they write (who their audience is, what material is appropriate, and what they must accomplish), and they show solutions for analyzing rhetorical problems in situations that are considered similar. Thus, they are a part of the writing process that helps to typify situations, roles, and actions (p. 15).

14.3.2 The Texts and the Basic Types

Discursive genres incorporate the social dimension of communication and are defined based on their dependence on the context. However, to explain their formal characteristics (linguistic, textual, and paratextual), we must consider texts from an internal point of view as linguistic units stemming from human communication. Thus, for example, if we consider the *debate* genre, we see how it is defined by its communicative situation (several people speaking in front of an audience, in controlled turns, about one or more topics usually established in advance, for a set time, etc.). Nevertheless, from an internal point of view, with regard to the type of text, the participants' discourse will be predominantly argumentative and expository, although other sequences cannot be ruled out (e.g., a narrative sequence in which one of the participants presents a particular case related to the topic being discussed). In terms of register, the interventions may be more or less formal, specialized, etc., depending on the specific target audience or subject matter.

Bernárdez (1982, p. 85) proposes, by way of definition, a set of characteristics of the *text* unit: it is a fundamental communicative linguistic unit, the product of a social activity, closed from a communicative point of view, and coherent at the deep and superficial levels because the speaker's intention is to create a complete text. These characteristics are broadly reflected in the proposal made by Beaugrande and Dressler (1997, p. 35 and ss.), who define the text as "a communicative event that meets seven norms of textuality," two focused on the text itself (coherence and cohesion) and five referring to the user (intentionality, acceptability, informativity, situationality, and intertextuality).

Text linguistics, which includes the approaches of Bernárdez and Beaugrande and Dressler, studies the linguistic organization of the text, including social and psychological aspects that are represented as linguistic elements.

In addition, texts, as manifestations of discourse diversity, respond to various forms of overall organization, called rhetorical structures or *superstructures* in van Dijk's model (1978: §5), which show the distribution of text content in large sections, such as paragraphs, and the internal structure of these sections. These various

forms of global organization have been called *text types*, each with its own *superstructure*. A text with a global organization will be comprehensible to the speakers to which it is addressed, and it will be coherent. This coherence first appears in semantic forms, but it is superficially expressed in linguistic phenomena, such as the use of text markers, the succession of tenses, the articles, etc., through what is usually known as *cohesion operations*.

Text types can be recognized by their informative structure and by their grammatical features. They are abstract in nature and small in number. Each text type implies a way of selecting and organizing words, sentences, and the whole text to express meanings in accordance with certain predominant functions.

Several typologies have been proposed from text linguistics, some of which are widely applied in teaching (Adam, 1992; Bronckart et al., 1985; Werlich, 1976, among others). Both Adam's typology and Werlich's typology (on which Adam is based) use terms previously coined by a long rhetorical tradition (narrative, descriptive, or argumentative text). As a basis for the typologies, Werlich (1976) uses the contextual focus of the speaker, that is, the contextual element that acts as the dominant referent in the discourse: persons and objects in space (descriptive text); actions, events, or transformations of persons or objects in time (narrative text); analysis or synthesis of ideas and concepts (expository text); relations between concepts (argumentative text); and future behavior (instructive text). Each of these foci of the receiver's attention corresponds to a certain cognitive process: perception in space, perception in time, comprehension of ideas through analysis or synthesis, judgment, and planning of behavior. In addition to these cognitive matrices, each type of text has a *base sentence* or sentence structure that represents the topic of the text and whose development gives rise to the complete text (e.g., in the narrative text, it is a sentence with a verb of change in the imperfect, plus local and temporal adverbs).

Adam's typology, in its initial formulation, had a functional base. It stemmed from Werlich's text types, which he related to the fundamental types of speech acts (enunciating, convincing, regulating behavior), adding predictive, conversational, and poetic text types. In later works (Adam, 1992; Adam & Revaz, 1996), in addition to revising some of the proposed types, Adam states that, strictly speaking, one cannot talk about a *text type* because each text is a heterogeneous reality. In order to linguistically define some aspects of this complexity, he formulates a reduced number of *basic sequences* that constitute texts and are structures that organize groups of elementary propositions of the text. The text is conceived as a complex hierarchical structure comprising sequences – elliptical or complete – of the same or different types. Adam considers five elementary sequences: narrative, descriptive, argumentative, explanatory, and conversational-dialogical. This notion of an *elementary sequence* basically coincides with van Dijk's (1978) notion of *superstructures*, described above.

Typologies represent essential characteristics of the language or communicative linguistic action, and they provide relevant information about the texts, but because of their degree of abstraction and generalization, they cannot cover the set of characteristics that define the individual, concrete text. Therefore, to account for the

discourse diversity in its totality, these typologies have to be combined, at least, with the concepts of *genre* and *register*, mentioned above.

The importance of the *text* unit and the *sequences*, *outlines*, or *elementary text types* that make up the genres must be situated in relation to the object of language teaching-learning: the linguistic-communicative use. To plan this teaching of the use, it is necessary to select the genres for the school by taking into account the recurrent presence of the basic text sequences, in order to guarantee their mastery (from comprehension and production) in texts with different intentions and from different spheres of social life (e.g., in genres that respond to different communicative situations, such as stories, or historical explanations, we will find the narrative text sequences, which can be combined with descriptive sequences in the former case and with expository or argumentative sequences in the latter). In addition, the elaboration of texts requires the mastery of grammatical procedures that guarantee the coherence of the ideas presented and their adequate linguistic formulation. These operations do not come from sentence grammar, but rather from studies related to text grammar (Cuenca, 2010), which will allow an adequate selection for didactic purposes (Rodríguez-Gonzalo, 2008; Zayas & Rodríguez, 1992). Thus, for example, it is possible to group the cohesion operations in relation to elementary text sequences.

Finally, the study of the text as a linguistic-communicative unit and the establishment of typologies also make it possible to relate language and literature, given that this study perspective builds a bridge between the two disciplines by providing them with a common theoretical framework.

14.3.3 Genre in Language Teaching

An examination of the diversity of texts and the factors that explain it makes it possible to outline the field where the objectives and activities for teaching and learning language use skills can be placed: the genres or forms of discourse through which communication takes place in the different spheres of social activity. Text comprehension begins with the identification of the genre to which it belongs, making it possible to identify its function and anticipate some of its contents. Text composition begins with a purpose and knowledge about the most appropriate genre to achieve that purpose in the social framework where the verbal activity takes place. With this knowledge, a text plan can be drawn up that affects the selection of the content and its structure and the most appropriate register.

Given the heterogeneous and changing nature of discourse genres, the question is how to bring this variability into classroom practices (García, 2009), in other words, how to systematize the characteristics of the statements in order to develop didactic proposals that allow students to make the genres their own. Several authors have addressed the place of genres in language teaching as support and reference tools and as learning objects.

The proposal made by Schneuwly and Dolz (1997) is based on the Vygotskian conception of development as a process of appropriating the experiences accumulated in a society, that is, as an internalization of the meanings of a social practice. Language is, thus, the mediator between the individual and the social practices. The function of the genre in this mediation is to forge a common model that becomes a representation that integrates and determines the horizon of expectations for the members of a community. Through these generic representations, which take on a regularity through the three dimensions established by Bajtín (1982) to characterize them (content, structure, and linguistic specificity), the students would have a reference for creating oral or written productions. Therefore, the genre is defined as the mediating reference between practices and activities for learning, that is, a mega-tool of support and reference in students' activities (p. 30). Dolz et al. (2003) also emphasized its character as a matrix and generator of activities and actions.

Genres also have to be an object of learning. In order to be constructed as a teaching-learning object, communicative situations of reference must be recreated in the classroom because, as indicated above, a genre cannot be decontextualized from the spheres of use in which it is framed and produced. This recreation in the classroom implies creating fictional spaces, conceiving the classroom *as if* it were the communication space of the selected genre. This means that the genre also becomes an abstraction, a partly fictitious genre (Schneuwly & Dolz, 1997, p. 30). The aim of this representation of genre in the classroom is for the student to learn to use it in key practices of reference. However, the selection of a genre in the school must respond to certain didactic objectives and undergo a partial transformation process in order to achieve teaching that is appropriate for the students' learning.

In addition, didactic transformation can occur by simplifying the genre, by placing the focus of learning on one of its dimensions or features, or by introducing it into a social situation that is not the original one. Thus, the genre in the classroom is always a variant of the genre of reference. For example, the work by García-Folgado (2017) on the use of the scientific poster is situated along these lines: a communicative situation similar to a scientific congress is created in the classroom so that students can explain their posters to their classmates. In this way, the students are supposed to appropriate the genre, along with its social uses.

This transformation turns genres into writing models (Bronckart, 1999) with the aim of guiding and helping learners in the process of text elaboration. Zayas (2012, p. 74) extends and complements this transformation of the discourse genre by introducing the concept of prototype (Cuenca & Hilferty, 1999). According to this author, "the characterization of a genre for educational purposes must respond to a prototypical representation of it that is easily transferable to the classroom." Therefore, it is necessary to elaborate models of the selected genre in order to, first, determine the core characteristics of the genre and, second, analyze "good examples" (examples of the genre that approach the prototype). Finally, Zayas quotes Rodriguez-Gonzalo (2008) when indicating the third and last purpose: to guide the students' composition writing process.

The transformation of the discourse genre involves elaborating didactic models that make explicit the implicit knowledge that members of a community have about

the social uses of language, based on an analysis that makes it possible to specify the elements of the communicative situation, the structure, and the linguistic forms that reflect the interaction factors in the text (Zayas, 2012). In this regard, Abad-Beltrán and Rodríguez-Gonzalo (2018a, 2018b, and 2023, in press), in their studies on the role of prototypical examples of genre in the writing process, show that modeling genres, from a learning perspective, facilitates the appropriation of the genre as a tool and the development of linguistic skills. Moreover, from a teaching perspective, it becomes a practical synthesis that guides teachers in extracting the teachable dimensions for the adoption of that genre.

Thus, the objective of teaching-learning in language education must be to teach how to use language to participate in the discourse practices of the different spheres of human activity (Zayas, 2012, p. 64). This participation in society takes place through discourse genres, and, therefore, the axis for sequencing the didactic proposals has to be the composition of a given genre.

Bazerman (2016) agrees with Zayas that developing as a writer in a community is part of the socialization and enculturation process. However, rather than focusing on modeling genres, in the teaching of writing, he pays attention to promoting activities linked to the audience and collaboration between the interlocutors. One of the repercussions of this proposal affects the assessment of writing, which would rely on collaborative practices such as peer assessment, the creation of real communicative situations, or collaborative writing.

In addition, Bazerman points out that the selection of genre examples for educational purposes should not focus on prototypical examples, in order to avoid overly broad generalizations and regularities that do not contemplate the construction of the writer's specific identity.

14.3.4 Academic Writing from the Perspective of Discourse Genres and the Theory of Activity

Research on teaching academic writing has also focused on discourse genres, especially at the secondary and university levels. These proposals have materialized in programs such as *Writing Across the Curriculum* in the USA.

Russell's (1997) proposal, which conceives of genres from the perspective of activity theory, emphasizes that, due to the interactions that occur throughout history, intertextual and functional changes in discourses are produced. Thus, the boundaries between the genres change. They are readjusted or diluted because, in order to master a tool, learners do not copy their predecessors' uses exactly, but instead they incorporate them into other activity systems.

Therefore, in secondary school and university, the process of teaching writing can be viewed as the mutual adoption by students and teachers of the new discourse tools through the genres and activities in which they have to interact. In this appropriation process, Russell points out two central aspects:

- Interactions: the teacher becomes the students' mentor, so that they can access the macro-social interactions (those that are specific to each discipline), based on the dialogic interactions of individuals in the classroom, which are conditioned by the different tools and operations that students bring from their interactions in other activities.
- The creation of an identity as active participants: the teacher has to guide the learners to see themselves as active participants who take ownership of the discourses and activities of the discipline.

In this process of cultural appropriation and construction of an identity as active participants in the disciplines, the teacher has to help students to overcome their alienation from what they view as academic writing practices (Russell, 2010; Bazerman, 2016). In addition, it is necessary to simulate professional and academic work contexts in the classroom that dilute the boundaries of school contexts.

In addition, Castelló (2017) highlights the importance of turning the classroom into a community of discourse that fosters functional writing activities and collaborative and interactive writing practices. This conception of teaching and learning writing promotes, on the one hand, students' reflection on writing and their regulation of the text elaboration process and, on the other, students' learning and in-depth examination of the content of their writing. Thus, writing becomes an object of reflection and, therefore, an epistemic and communication tool (p. 8), and it helps students to become more aware of the decisions they have to make to create their texts and take on the role of authors of their writing (p. 9).

The studies on academic teaching outlined by Bazerman and Russell view the writing process as an intellectual process and not as a text product. Thus, writing is conceived as a contextualized activity rather than as a basic tool generalizable to all disciplines, given that its forms differ from one discipline to another.

Learning to use the language will therefore consist of developing the necessary capabilities to use the different discourse genres, that is, to plan texts according to certain models and use the different registers that characterize texts in the different spheres of social activity. This means moving from more informal, spontaneous, and subjective uses, where the students have ample experience, to more formal and planned uses designed to transmit and receive information and opinions efficiently.

14.4 Teaching Writing Through Genres in the Didactic Sequences

The teaching of writing through genres has to relate three aspects: (a) the discourse essence of the genres, which views writing (and orality) as a situated social activity; (b) the need to situate the student as the protagonist of his or her own learning, which in this case means giving him or her a voice as author (not as reproducer or copier); and (c) the consideration of writing as a complex cognitive process that requires different phases (planning, textualization, revision), with teaching aids in all of them.

Taking these three aspects into account, we have proposed models for teaching writing that are designed as teaching and learning processes organized in phases (which means they are developed in the classroom in several sessions), whose task or final product is the creation of a discourse genre. These are the didactic sequence models (hereinafter, DS). We will briefly refer to four proposals whose initial formulation took place in the last decades of the past century: the didactic sequences of the *Sydney School* pedagogy of genres (Rose & Acevedo, 2017; Rose & Martin, 2012), the didactic sequence model by Bronckart and the Geneva School (Bronckart, 2004; Dolz et al., 2001), the *didactic sequences for learning to write* by Camps and the Greal group of the Universitat Autònoma de Barcelona (Camps, 1996; Camps & Fontich, 2020; Milian, 2012), and the Didactext group model from the Universidad Complutense de Madrid (Álvarez Angulo, 2010; Didactext, 2015).

In all these proposals, didactic sequences are articulated as educational processes that seek to give meaning to writing as a discourse activity oriented toward a social purpose. This activity is developed in dialogue with other texts and takes shape in *textual or discourse genres*, as specific forms of language produced in different social environments (Camps, 2003, p. 27–28). These features also link these proposals with the principles that inspired project-based learning (Dolz et al., 2001; Camps, 1996; Rodríguez-Gonzalo, 2008). In the case of writing projects, the use of language serves a dual function: on the one hand, it focuses on the use of language specific to each genre, and, on the other, it contemplates using language for learning, according to the characteristics of the task itself.

14.4.1 The Genre-Based Pedagogy and the Didactic Sequence as Genre in the Sydney School

Since the 1980s, the Sydney School has developed an ambitious literacy program focused on discourse genres that consists of three major phases in the teaching and learning of reading and writing across the curriculum. The first phase, the *Writing Project* and *Language and Social Power*, sought to apply Halliday's (1994) functional linguistics to the teaching of discourse genres. As a result, a classification of written school genres was proposed as a basis for the explicit teaching of writing in primary education (*stories*, *text responses*, *arguments*, *reports*, *explanations*, and *procedures*). This teaching was planned in three stages: *deconstruction* of a model text, *joint construction* of a new text by the whole class, and *independent construction*. In the second phase, developed in the 1990s, the *Write It Right* project investigated the demands of reading and writing in the different disciplines of secondary education (Science, Mathematics, English, History, and Geography). As a result, a map of genres was drawn up for all the school stages, grouped in three major families (*stories*, *factual*, *evaluating*). The third phase, in the first decade of the twenty-first century, proposes the *Reading to Learn (R2L)* model, whose focus is on teaching reading strategies for the different genres that allow students to read the

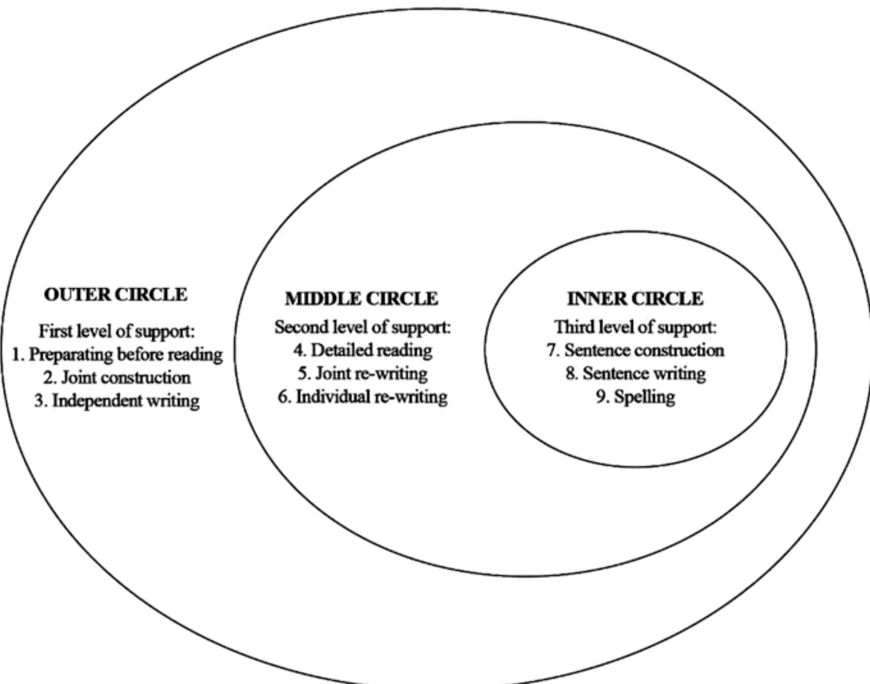

Fig. 14.1 DS in the Sydney School. (Based on Rose and Martin (2012, p. 303))

texts from the curriculum with critical comprehension and use what they learn in their writing. Therefore, its aim is the integrated development of reading and writing skills across the disciplines through "nine sets of learning activities that structure three levels of scaffolding or support, for texts, paragraphs, sentences, word groups, and words" (Rose & Martin, 2012, p. 282). The proposed didactic sequences are presented as a set of implementation options organized in circles (outer, middle, and inner, depending on the level of support required by the learners). Each circle is organized in three phases of learning activities (Fig. 14.1):

The Sydney School model is conceived as a project that starts with the training of teachers of all the disciplines in workshops on reading and writing, such that the teachers learn to prepare the tasks, implement them in the classroom, and analyze them. Thus, the didactic sequence becomes a genre, that is, a pedagogical model for teaching reading and writing in the different curricular areas.

The pedagogical knowledge gathered in this extensive research resulted in "the didactic sequence as genre: a theory on language-based teaching and learning" (Rose & Martin, 2012, p. 277). As its authors indicate, it is a model of the analysis and design of pedagogical practice articulated in three categories, following Halliday. Thus, in the *didactic sequence* genre, the *tenor* refers to pedagogical relationships between teachers and students and among students; the *field* refers to pedagogical activities and sequences of activities and classroom interactions; and

the *mode* refers to pedagogical modalities, which include oral, written, visual, and manual exercises.

This project was initially aimed at compulsory education in disadvantaged areas and indigenous populations. Its goal was to "design a pedagogical writing system that would enable any student to successfully meet the academic demands" (Rose & Martin, 2012, p. 15), taking into consideration Bernstein's work (1990, 1996) on how inequalities in participation create hierarchies of success and failure in school. This system, known as *genre-based pedagogy*, proposes an explicit and systematic intervention in "reading and writing in all the curricular subjects at all the educational levels, including higher education" (Rose & Acevedo, 2017, p. 8).

The pedagogy of genres has been widely used at different educational levels, both in Europe (Acevedo et al., 2016; Pedrosa, 2017; Whittaker & Lövstedt, 2017) and in America (Colombi, 2005; Moyano, 2018; Westhoff, 2017).

14.4.2 *The Didactic Sequence Model of the Geneva School*

According to the Geneva School model, as formulated by Bronckart (1999), the didactic sequence is an integrated set of temporal units focused on a text genre and on one or more of the technical problems students encounter in mastering the genre. The process is organized in three phases: an initial text production, a series of technical modules (workshops), and a final production. The initial production is carried out with very clear instructions that explicitly describe the parameters of the production context (type of interaction, audience, medium used, etc.), the topic of the text, and the intended effects on the audience (purpose). The elaboration of the technical modules is based on the difficulties observed in the students' initial productions, and the modules are presented as workshops that deal with aspects of different levels: adaptation of the genre to the communication situation, textualization mechanisms, voice management, modalization problems, etc. Finally, in the final production, the student is asked, with a new instruction, to produce a new production of the genre addressed, which serves as an evaluation of the learning process that took place in the modules or workshops. Dolz et al. (2001) present an outline of this model (Fig. 14.2).

As Fig. 14.2 shows, the didactic sequence articulates the written language work in a reading or writing project in relation to the action to be carried out, which makes it meaningful for the students, who can become aware of their own teaching and learning processes. These projects can be included in three types of communication situations: authentic situations related to life outside school, discourse situations within the school environment, and "fictionalization" situations oriented toward learning, staging invented situations that are close to reality.

The Geneva School didactic sequence model is widely followed by researchers linked to socio-discourse interactionism, both in Europe (Álvares Pereira et al., 2010; García-Azkoaga & Idiazábal, 2015) and in Latin America (Riestra et al., 2014; Rodrigues Tognato & Dolz, 2019).

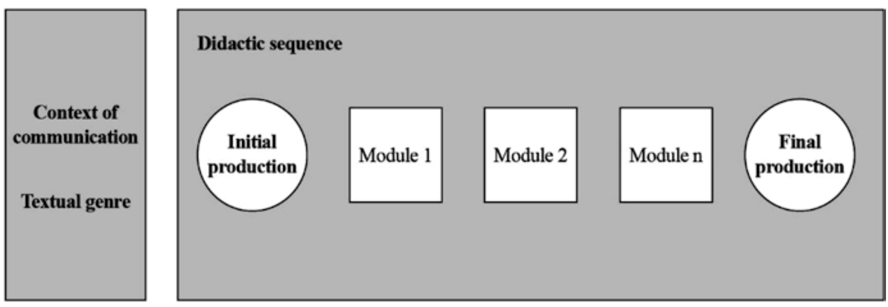

Fig. 14.2 DS model. (Based on Dolz et al. (2001, p. 7))

14.4.3 *Didactic Sequences for Learning to Write* by Camps

The line of research on teaching written language led by Anna Camps and the Greal group at the Universitat Autònoma de Barcelona gave rise to the *didactic sequence model for learning to write* (Camps, 1996), which integrates the ideas behind project work with its own methodological options and numerous exemplifying works (Camps, 2003; Camps & Ribas, 2000; Camps & Fontich, 2020). The organization of the didactic sequence as a language project is divided into three major phases, as Fig. 14.3 reveals.

The preparation phase corresponds to the motivation for the act of learning. In this phase, the purpose of the task is established, and the learning objectives are set out. The discourse situation the work will address is also proposed, so that the students represent the task (writing an opinion article, making an anthology of stories, etc.) and become agents of the composition activity. It should be taken into account, however, that the representation of the task and the learning will evolve throughout the process. At the same time, the motivation will vary as the perception that the objective can be reached and that the risk taken is worthwhile becomes consolidated.

The production phase contains two types of activities: those related to the elaboration of the text, oriented toward learning the formal characteristics of the text and how to use them, and those involving an approach to the conceptual contents being addressed, whether linguistic or literary, contents to be used in the discourse task. Production is the central phase of learning. It allows several production alternatives and requires numerous interventions from the teacher to provide the necessary aid to perform a complex task. In this phase, formative assessment becomes especially important as a regulator of the learning process.

The text production process, which involves planning, textualization, and revision, is interrelated with other tasks and reflections that lead to the progressive construction of "know-how" on the part of the student (*systematic work on form and content*). The characteristics of each sequence determine the best activities to obtain information and know the formal characteristics of the texts, etc. However, three common features can be pointed out: (a) Verbal interactions among peers and with

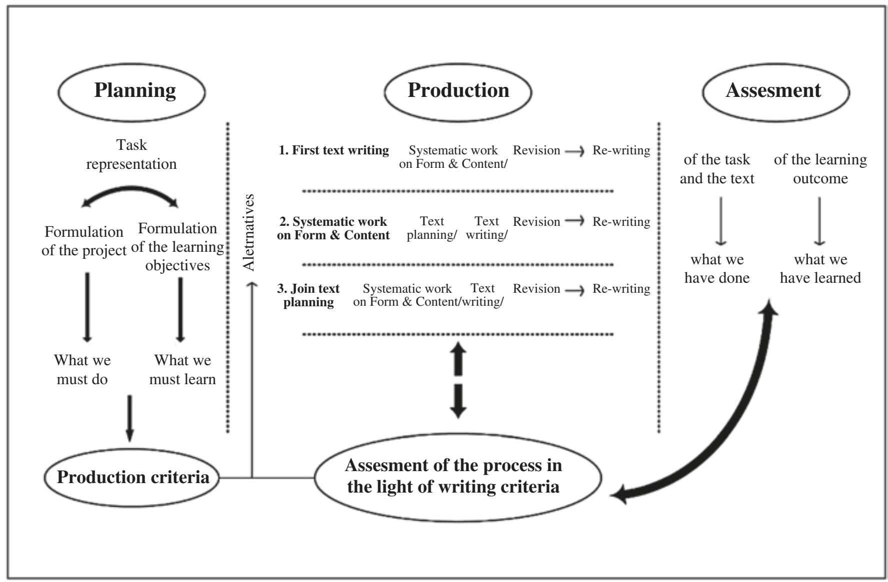

Fig. 14.3 DS for learning to write. (Based on Camps and Fontich (2020, p. 122))

the teacher are important because it is difficult for learners to individually manage text production in all its complexity. In this way, writing (or producing a formal oral text) is not just a process of *stating knowledge*, that is, literally reproducing what others have said. Instead, it brings students closer to the process of *transforming knowledge*, so that language gradually becomes an instrument of thought (Scardamalia & Bereiter, 1992). Thus, the interrelation among the linguistic skills is shown. (b) The need to use other texts – either to search for information and elaborate on the contents or as models for structural and formal aspects – allows students access to the forms that the literate society has established for acting in the different spheres of social activity (*discourse genres*). Moreover, learning to write (and, in general, to elaborate texts) signifies the mastery of a social competence of the literate society in which we live. (c) In relation to the specific learning objectives of each didactic sequence, it is necessary to carry out specific exercises to master the programmed aspects. These aspects are elements of the whole of text production, and their mastery makes sense in the overall task (e.g., knowing how to use verb tenses in a narrative or using the right connectors to give an opinion).

The assessment phase, understood as a feedback phase, is part of the learning process. In this model, formative language assessment is concerned with the products achieved through linguistic activity, but it views them as the result of a generally complex process, which in itself is the object of learning and assessment. Formative assessment is a dynamic reality that develops parallel to the learning process. The same interactive process that occurs during the production-learning process also has a regulatory function, regulating both the composition process and the process of learning the elements that contribute to the whole, which is the text.

From this point of view, assessment is inherent to the learning process and will require various instruments (rubrics, models for comparison, evaluative comments from peers or the teacher, etc.), adapted to the characteristics of the didactic sequence and the work group.

At the final moment, when evaluating the task performed and what has been learned, the assessment makes it possible to become aware of what has been done, and it contributes to the metacognitive recovery of the procedures followed, their results, and the concepts used. From this perspective, assessment is understood as an appraisal not only of what each student has achieved individually but also of what has been achieved by the group, including the teacher.

The proposal of Camps and the Greal group has been very influential in the Spanish-speaking world, with a variety of implementations in both primary and secondary schools (Camps, 2003; Camps & Fontich, 2020; Milian, 2012). Currently, the Camps proposal is incorporating the contributions of information and communication technologies (ICTs), which, as Manresa et al. (2012) point out, are not merely an added element because they become essential. In the SD model, ICTs make it possible to work with new discourse genres, provide new ways of reading and writing, expand the possibilities for interaction, and broaden the sources of information available. As a tool, they offer new methodological possibilities and resources, and they are a driving force for pedagogical renewal among teachers.

14.4.4 Academic Writing and the Didactic Sequence Model of the Didactext Group

The didactic sequence model of the Didactext group, led by Álvarez Angulo, is based on a *socio-cognitive, pragma-linguistic, and didactic model for the production of written texts*, and it is fundamentally oriented toward academic writing (Agosto et al., 2017; Didactext, 2015) and approaches focusing on reading and writing across the curriculum (Álvarez Angulo & García Parejo, 2010). In the text production process, this model adds the social dimension to the individual one and "makes explicit the cognitive processes and strategies (...) from the enveloping dimension of culture; and adopts a perspective of intervention in classrooms to improve writing practices" (Álvarez Angulo, 2006, p. 54).

Like the previous models, it focuses on the design and creation of didactic sequences about real topics that are of interest to students. In this case, the learning is organized in five permeable and recursive phases, depending on the classroom dynamics, because observing the way students write is considered an essential aspect. In each phase, the thematic content and the most appropriate textual sequence for the communicative situation are addressed simultaneously. For example, in an essay, the most appropriate sequences would be expository and argumentative. In addition, the necessary aids are described in order to create the habit of making outlines, summaries, concept maps, and drafts or intermediate texts, which are considered the products of each phase. Particular importance is given to revision, the

	DS stages	Activities	Products
1	Contextualize writing process	Registering previous knowledge: what do we know about the *topic*, the *writing context*, the *expository text*	Lists, diagrams, forms…
2	To access the knowledge	Registering intentions: what do we want / need to know? Selecting and organizing data (on the topic, task, and text type)	Lists, diagrams, forms…
3	Planning	Planning First revision of the task Reading activities based on model text	Mind maps, outlines
4	Textualization	Toward a first draft	First draft, intermediate text
5	Revision-editing	Assessment of the process and the product Edition of the final text Assessment of learning	Edition of the final text

Fig. 14.4 DS stages in the teaching of writing expository texts. (Based on Álvarez Angulo (2006, p. 58–60), and Álvarez Angulo and García Parejo (2010, p. 185))

most difficult step to carry out because the students are not in the habit of performing writing and rewriting activities. An outline of the model is shown in Fig. 14.4.

In García Parejo (2011), after a detailed presentation of the three main phases of writing (planning, textualizing, and revising), different studies based on this model are collected in relation to writing expository texts in different curricular areas, from early childhood education to secondary education, including the different cycles of primary education.

14.5 Conclusions

Socio-cognitive models show that writing is a complex process that is produced and learned in certain social circumstances and conditioned by anthropological, social, cognitive, or linguistic-textual aspects. Learning to write involves adopting the discourse genres that allow one to develop in the world of writing. It is, therefore, a process of enculturation that is accessed by participating in social activities and

acquiring the tools that make it possible to interact in communities of discourse. Therefore, the teaching of writing has to encourage practices that are contextualized in communicative situations and offer tools that help the student to mediate or interact in social activities in order to favor the enculturation process. Discourse genres are the stable types of utterances through which one participates in society, and so they are the axes of the didactic sequences we have presented: knowledge about genre helps students to identify the audience, the assessment criteria, and the objectives to meet, in an attempt to facilitate the typification of situations, roles, and actions.

This enculturation process involves accessing the writing practices of the different social spheres. Therefore, in the didactic sequences, it is necessary to select genres that favor the appropriation of discourse tools that help to mediate and interact in the activity systems. Thus, the teacher should consider which genres facilitate students' interaction and participation in different social communities.

The didactic sequence models presented here make the teaching of writing explicit and offer ways to address the complexity of this knowledge at different educational levels because they view the practice of writing as a situated social activity in which the discourse genres are the axes and objectives. All the models address the three main writing processes (planning, textualization, and revision) and encourage interaction in the classroom between students and the necessary tools to enter and participate in discourse communities. In order to encourage these interactions, in the design and implementation of the sequences, oral and written uses of language or text comprehension and production are interrelated.

Linking the teaching and learning of writing with discourse genres opens up the school to contextualized discourse practices and offers students the opportunity to appropriate cultural tools that favor their participation in diverse social and discourse spheres.

References

Abad-Beltrán, V., & Rodríguez-Gonzalo, C. (2018a). Los géneros discursivos y las secuencias didácticas: el lugar de los ejemplos prototípicos en la enseñanza y aprendizaje de la escritura [Discursive genres and didactic sequences: The place of the prototypical examples in the teaching and learning of writing]. *Lenguaje y textos, 48*, 21–32. https://doi.org/10.4995/lyt.2018.8748

Abad-Beltrán, V., & Rodríguez-Gonzalo, C. (2018b). Los modelos de género discursivo en la planificación y revisión de una reseña de lectura [Discursive genre models in the planning and revision of a reading review]. *Didáctica. Lengua y literatura, 30*, 11–21. https://doi.org/10.5209/DIDA.61951

Abad-Beltrán, V., & Rodríguez-Gonzalo, C. (in press). El proceso de revisión textual: los ejemplos prototípicos de género como elementos reguladores de la escritura [The Textual Review Process: Prototypical Examples of Genre as Regulatory Elements of Writing]. *Onomázein, 60*.

Acevedo, C., Coffin, C., Gouveia, C., Lövstedt, A. C., & Whittaker, R. (2016). Teacher learning for European literacy education (TeL4ELE) 2011-2013 project. In J. de Silva & S. Feez (Eds.), *Exploring literacies. Theory, research and practice* (pp. 327–333). Palgrave Macmillan.

Adam, J.-M. (1992). *Les textes : Types et prototypes [Texts : Types and prototypes]*. Nathan.

Adam, J.-M., & Revaz, F. (1996). (Proto)Tipos: La estructura de la composición en los textos [(Proto)Types: The structure of composition in texts]. *Textos de Didáctica de la Lengua y la Literatura, 10*, 9–32.

Agosto, S., Álvarez Angulo, T., Hilario Silva, P., Mateo Girona, M. T., & Uribe Álvarez, G. (2017). *Géneros discursivos y estrategias para redactar textos académicos en Secundaria [Discursive genres and strategies for writing academic texts in secondary school]. Octaedro.*

Álvares Pereira, L., Aleixo, C., Cardoso, I., & Graça, L. (2010). The teaching and learning of writing in Portugal: The case of a research group. In *Traditions of writing research* (pp. 58–70). Routledge.

Álvarez Angulo, T. (2006). Didáctica de la escritura en la formación del profesorado [Didactics of writing in teacher training]. *Lenguaje y Textos, 23-24*, 47–63.

Álvarez Angulo, T. (2010). *Competencias básicas en escritura [Basic competences in writing]*. Octaedro.

Álvarez Angulo, T., & García Parejo, I. (2010). Academic writing in Spanish compulsory education. In *Traditions of writing research* (pp. 181–197). Routledge.

Bajtín, M. (1982. [1979]). El problema de los géneros discursivos [The Problem of Speech Genres]. In *Estética de la creación verbal* (pp. 248–293). Siglo XXI.

Bazerman, C. (1994). Systems of Genres and the enactment of social interaction. In *Genre and the new rhetoric* (pp. 67–85). Taylor & Francis.

Bazerman, C. (2016). What do sociocultural studies of writing tell us about learning to write? In *Handbook of writing research* (2nd ed., pp. 11–23). The Guilford Press.

Beaugrande, R.-A., & Dressler, W. U. (1997). *Introducción a la lingüística del texto [Introduction to text linguistics]*. Ariel.

Bereiter, C., & Scardamalia, M. (1987). *The psychology of written composition*. Lawrence Erlbaum Associates.

Bernárdez, E. (1982). *Introducción a la lingüística del texto [Introduction to text linguistics]*. Espasa-Calpe.

Bernstein, B. (1990). *Class, codes and control IV. The structuring of Pedagogic discourse*. Routledge.

Bernstein, B. (1996). *Pedagogy, symbolic control and identity: Theory, research, critique*. Taylor and Francis.

Bronckart, J.-P. (1999). L'enseignement des langues ; pour une construction des capacités textuelles [Language teaching; building textual skills]. In *Ensenyament de llengües i plurilingüisme [Language teaching and multilingualism]* (pp. 17–26). Universitat de València.

Bronckart, J.-P. (2004). *Actividad verbal, textos y discursos [Discursive activity, texts and discourses]*. Fundación Infancia y aprendizaje.

Bronckart, J.-P., Bain, D., Schneuwly, B., Davaud, C., & Pasquier, A. (1985). *Le fonctionnement des discours : Un modèle psychologique et une méthode d'analyse [The functioning of discourses: A psychological model and a method of analysis]*. Delachaux & Niestlé.

Camps, A. (1996). Language "projects", between theory and practice. *Culture and Education, 8*(2), 43–57. https://doi.org/10.1174/113564096763277715

Camps, A. (Comp.). (2003). *Secuencias didácticas para aprender a escribir [Instructional sequences for learning to write]*. Graó.

Camps, A., & Fontich, X. (Eds.). (2020). *Research and teaching at the intersection. Navigating the territory of grammar and writing in the context of metalinguistic activity*. Peter Lang.

Camps, A., & Ribas, T. (2000). *La evaluación del aprendizaje de la composición escrita en situación escolar [Assessing the learning of writing composition in school context]*. Ministerio de Educación, Cultura y Deporte.

Carlino, P. (2005). *Escribir, leer y aprender en la universidad. Una introducción a la alfabetización académica [Writing, reading and learning at university. An introduction to academic literacy]*. FCE.

Cassany, D. (2012). *En_línea: leer y escribir en la red [On_line: Reading and writing on the web]*. Anagrama.
Castelló, M. (2017). Mirarse al espejo. De comunicar lo que se ha aprendido a aprender comunicando [Looking in the mirror. From communicating what has been learned to learning by communicating]. *Textos de Didáctica de la Lengua y la Literatura, 76*, 4–13.
Colombi, M. C. (2005). Academic language development in Latino students' writing in Spanish. In M. J. Schleppegrell & M. C. Colombi (Eds.), *Developing advanced literacy in first and second languages* (pp. 67–87). Routledge.
Cuenca, M. J. (2010). *Gramática del texto [Text grammar]*. Arco Libros.
Cuenca, M. J., & Hilferty, J. (1999). *Introducción a la lingüística cognitiva [Introduction to cognitive linguistics]*. Ariel.
Didactext. (2015). Nuevo marco para la producción de textos académicos [New framework for the production of academic texts]. *Didáctica. Lengua y Literatura, 27*, 219–254. https://doi.org/10.5209/rev_DIDA.2015.v27.50871
Dolz, J., Noverraz, M., & Schneuwly, B. (Eds.). (2001). *S'exprimer en français. Séquences didactiques pour l'oral et pour l'écrit. Notes méthodologiques [Expressing oneself in French. Didactic sequences for oral and written expression. Methodological notes]* (Vol. IV-7e/8e/9e). De Boeck.
Dolz, J., Gagnon, R., Mosquera, S., & Sánchez Abchi, V. (2003). *Producción escrita y dificultades de aprendizaje [Written production and learning difficulties]*. Graó.
Englert, C. S., Mariage, T. V., & Dunsmore, K. (2006). Tenets of sociocultural theory in writing instruction research. In *Handbook of writing research* (pp. 208–221). The Guilford Press.
Flower, L., & Hayes, J. R. (1980). The dynamics of composing: Making plans and juggling constraints. In L. W. Gregg & E. R. Steinberg (Eds.), *Cognitive processes in writing* (pp. 31–50). Lawrence Erlbaum Associates.
Flower, L., & Hayes, J. R. (1981). A cognitive process theory of writing. *College Composition and Communication, 32*(4), 365–387.
García, M. (2009). El vuelco a la acepción de género o a la heteroglosia constitutiva del lenguaje [The shift to the gender meaning or heteroglossia constitutive of language]. *Estudos Linguísticos/Linguistic Studies, 3*, 199–210.
García Parejo, I. (Coord.). (2011). *Escribir textos expositivos en el aula [Writing expository texts in the classroom]*. Graó.
García-Azkoaga, I. M., & Idiazábal, I. (Eds.). (2015). *Para una ingeniería didáctica de la educación plurilingüe [For a didactic engineering of multilingual education]*. Universidad del País Vasco.
García-Folgado, M. J. (2017). El póster como género discursivo [The poster as a discursive genre]. *Textos de Didáctica de la Lengua y la Literatura, 76*, 34–37.
Halliday, M. A. K. (1982. [1978]). *El lenguaje como semiótica social. La interpretación social del lenguaje y del significado [Language as social semiotic. The social interpretation of language and meaning]*. FCE.
Halliday, M.A.K. (1994). *An introduction to functional grammar*. Arnould.
Manresa, M., Durán, C., & Ramada, L. (2012). Les TIC en les seqüències didàctiques de llengua i literatura [ICT in language and literature teaching sequences]. *Articles de Didàctica de la Llengua i la Literatura, 57*, 36–48.
Milian, M. (2012). El model de seqüència didáctica vint anys després [The instructional sequence model, twenty years on]. *Articles de Didàctica de la Llengua i la Literatura, 57*, 8–21.
Moyano, E. (2018). La enseñanza de la lectura y la escritura académicas mediante programas a lo largo del curriculum universitario: opción teórica, didáctica y de gestión [Teaching academic reading and writing through programmes across the university curriculum: A theoretical, didactic and managerial option]. *DELTA, 34*(1). https://doi.org/10.1590/0102-445074896274115057
Pedrosa, B. (2017). Implementación del modelo *Leer para aprender* en un contexto plurilingüe [Implementation of the Reading to learn model in a multilingual context]. *Lenguaje y Textos, 46*, 4–54 https://doi.org/10.4995/lyt.2017.8714

Prior, P. (2006). A sociocultural theory of writing. In *Handbook of writing research* (pp. 54–66). The Guilford Press.

Reyes, G. (1999). *Cómo escribir bien en español [How to write well in Spanish]*. Arco Libros.

Riestra, D., Goicoechea, M. V., & Tapia, S. M. (2014). *Los géneros textuales en secuencias didácticas de Lengua y Literatura [Textual genres in language and literature teaching sequences]*. Noveduc.

Rodrigues Tognato, M. I., & Dolz, J. (2019). Writing as a process in teacher education: Analysis of a didactic sequence. In C. Bazerman, B. González Pinzón, D. Russell, P. Rogers, L. Peña, E. Narváez, P. Carlino, M. Castelló, & M. Tapia (Eds.), *Conocer la escritura: investigación más allá de las fronteras / knowing writing: Writing research* (pp. 257–278). Universidad Javeriana & WAC Clearinghouse.

Rodríguez-Gonzalo, C. (2008). La organización del aprendizaje lingüístico y literario [The organisation of language and literary learning]. In *La lengua escrita y los proyectos de trabajo. Propuestas para el aula [Written language and project work. Proposals for the classroom]* (pp. 19–41). Perifèric.

Rose, D., & Acevedo, C. (2017). Aprender a escribir, Leer para Aprender: origen y desarrollo de proyectos para la mejora de la lectura y la escritura en Australia [Learning to write, reading to learn: Background and development of genre-based literacy improvement projects in Australia]. *Lenguaje y Textos, 46*, 7–18. https://doi.org/10.4995/lyt.2017.8688

Rose, D., & Martin, J. R. (2012). *Learning to write, reading to learn. Genre, knowledge and pedagogy in the Sydney school. Equinox*

Russell, D. R. (1995). Activity theory and its implications for writing instruction. In J. Petraglia (Ed.), *Reconceiving writing, rethinking writing instruction* (pp. 51–77). Lawrence Erlbaum.

Russell, D. R. (1997). Rethinking genre in school and society: An activity theory Analysi*s*. *Written Communication, 14*(4), 504–554. https://doi.org/10.1177/0741088397014004004

Russell, D. R. (2010). Writing in multiple contexts. Vygotskian CHAT meets the phenomenology of genre. In *Traditions of writing research* (pp. 353–364). Routledge.

Scardamalia, M., & Bereiter, C. (1992). Dos modelos explicativos de los procesos de composición escrita [Two explicative models for the processes of written composition]. *Infancia y Aprendizaje, 58*, 43–64.

Schneuwly, B., & Dolz, J. (1997). Les genres scolaires des pratiques langagières aux objets d'enseignement [School genres from language practices to teaching objects]. *Répères, 15*, 27–40.

Tolchinsky, L., & Simó, R. (2001). *Escribir y leer a través del currículum [Writing and reading across the curriculum]*. ICE UB-Horsori.

van Dijk, T. A. (1978). *La ciencia del texto [The science of text]*. Paidós.

Werlich, E. (1976). *A text grammar of English*. Quelle & Meyer.

Westhoff, I. (2017). Desarrollo de una secuencia didáctica basada en el programa *Leer para Aprender*: propuesta de aproximación al género narración en la educación primaria en Chile. *Lenguaje y Textos, 46*, 19–28. https://doi.org/10.4995/lyt.2017.8722

Whittaker, R., & Lövstedt, A.-C. (2017). Un proyecto europeo para la mejora de las competencias discursivas en Europa: *Reading to Learn* en TeL4ELE [A European Project to improve discourse competence in Europe: *Reading to Learn* in Tel4ELE]. *Lenguaje y Textos, 46*, 29–40. https://doi.org/10.4995/lyt.2017.8712

Zayas, F. (2009). Escribir y leer en la Red: nuevas prácticas discursivas [Writing and reading on the Net: New discursive practices]. In *La competencia digital en el área de Lengua [Digital competence in the language área]* (pp. 39–69). Octaedro.

Zayas, F. (2012). Los géneros discursivos y la enseñanza de la composición escrita [Discursive genres and the teaching of written composition]. *Revista Iberoamericana de Educación, 59*, 63–85. rie59a03.pdf (rieoei.org).

Zayas, F., & Rodríguez, C. (1992). Composición escrita y contenidos gramaticales [Written composition and grammar contents]. *Aula de Innovación Educativa, 2*, 13–16.

Chapter 15
Teaching of Argumentative Writing in Romance Languages: A Meta-Analysis

Hugo Vilar and Mariona Pascual

15.1 Introduction

Writing is essential to academic and professional success as well as for effective communication in today's personal life. Writing is a tool for learning, assessing, and supporting content acquisition; professionals of all levels are expected to use writing to fill reports, prepare presentations, and communicate with clients and other co-workers, and it has gained importance in daily life for social networking, emailing, and texting.

Given the widespread use of writing, students who do not attain the required proficiency levels in writing can be at a disadvantage (Greenwald et al., 1999; Koster et al., 2015; NAEP, 2011; Persky et al., 2003; Rogers & Graham, 2008). They are less capable of demonstrating their knowledge, defending their standpoint in a discussion, and communicating their intended meaning, leading to lower academic success or even sustained difficulties persisting until adulthood (Graham & Harris, 2005a; Graham & Perin, 2007).

Nonetheless, there has been an increase of evidence-based treatment proposals to remediate these struggles. Two common recommendations to reverse this situation involve (1) increasing the time students spend writing and (2) improving teachers' preparation to teach writing (National Commission on Writing, 2003). To appropriately implement these recommendations and avoid falling into phony practices, it is crucial that teachers are provided with evidence-based instructional practices that can help improve the quality of their students' writing by identifying the most

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effective treatments (Graham et al., 2012). We understand treatments as the intentional application of several instructional activities in the target domain for a defined period of time with the purpose of modifying some of its aspects.

The growth in the number of studies analyzing writing treatments' effectiveness during the last decades makes it increasingly difficult to adequately read and process their results (Viechtbauer, 2007). Meta-analyses, the statistical synthesis of results from primary studies (Borenstein et al., 2009), are particularly useful to overcome such difficulty. Meta-analyses combine the results of multiple primary studies on a certain topic (in this case, writing interventions) providing a summary effect size (ES), a value that reflects the overall effectiveness of the treatments implemented on a certain outcome (Lipsey & Wilson, 2001). Meta-analyses also allow comparing treatments to see which ones are more effective and determine if there are any variables such as grade or genre that could be moderating the magnitude of the effect. Moreover, meta-analyses focus on the magnitude and the direction of the effect, that is, on its size and whether it positively or negatively impacts the outcome, rather than on significance testing.

Consequently, several meta-analyses have been conducted over a variety of treatments and grade levels to either analyzing the effect of multiple writing treatments (Graham et al., 2012, 2015a; Graham & Perin, 2007; Hillocks, 1986; Koster et al., 2015; Rogers & Graham, 2008) or attesting specific treatment effectiveness such as those focused on word processing (Bangert-Drowns, 1993; Gersten & Baker, 2001; Little et al., 2018), strategy instruction (Graham, 2006), feedback (Biber et al., 2011; Graham et al., 2015b), or the process writing approach, which involves conducting cycles of planning, translating, and revising in a supportive environment with high levels of interaction (Graham & Sandmel, 2011).

All studied writing treatments have proven to be effective in improving text quality with the exception of grammar instruction, which had a negative impact in two meta-analyses (Graham et al., 2012; Graham & Perin, 2007). However, there is more evidence for some treatments than for others. Among the treatments examined in three or more meta-analyses, product goals and strategy instruction have obtained the largest effect sizes. Peer assistance, feedback, and text structure instruction have resulted in medium effect sizes. Finally, prewriting activities, word processing, and the process writing approach have produced small but significant effects.

This chapter aims to address two key limitations of the previous meta-analyses. We find a need for a shift in focus, firstly for a more language-inclusive point of view and secondly for a distinction between written genres.

First, most meta-analyses only included studies published in English and conducted in English-speaking countries, primarily in the United States. This characteristic might be biasing their sample and results and might reduce the generality of their findings. Studies published in English are usually more aligned with the Anglo-Saxon rhetorical tradition, irrespective of the language in which they were carried out. The possible bias effect of this fact can be overcome by a meta-analysis embracing studies that were carried out in languages other than English. Also, texts are linguistic products developed in specific cultural environments, and differences in cultural traits (Oyserman & Lee, 2008) and rhetorical traditions (Clyne, 1987)

may impact the relative effectiveness of the implemented treatments. Romance language-speaking countries host almost a billion speakers and share commonalities regarding their language, rhetorical tradition, and cultural traits, which make them a great alternative to explore the effectiveness of writing interventions beyond English-speaking countries.

Besides, anglocentricity has proven to be detrimental in other literacy domains such as reading (Share, 2008), where the current state of knowledge is largely confined to English speakers reading in their native tongue. The idiosyncrasies of English, a language with a highly inconsistent orthographic system, have led to questioning the applicability of Anglophone findings to other languages. English scholarly tradition accounts for the orthographic challenges of a non-transparent language, whereas most Romance languages do not struggle with these language constraints.

The second limitation we found is that genre was not a selection criterion for the primary studies included in previous meta-analyses; studies were included irrespectively of the genre they taught. Some meta-analyses coded genre as a study feature and performed subgroup analyses to determine if there were differences due to genre in the magnitude of the effect (Graham & Perin, 2007; Little et al., 2018), but only Koster et al. (2015) found such differences. However, genre categorization was dissimilar, and most meta-analyses including multiple treatments only did such analyses with some treatments. Also, most primary studies focused on narrative and/or expository writing, and argumentative writing only made up a small percentage of the studies included. Nonetheless, different genres require different cognitive and linguistic abilities, as we have seen in several writing process studies (Alves & Limpo, 2015; Olive et al., 2009). When facing an argumentative writing task, writers pause more and write in shorter strings of text, due to the cognitive effort that it entails (Beauvais et al., 2011; Medimorec & Risko, 2017). Therefore, if genre constrains or enables the writing process, it may influence the treatments' effectiveness (Badger & White, 2000).

Moreover, self-regulatory strategies have been seen to develop at different rhythms and to moderate writing quality across and between text genres (Oddsdóttir et al., 2021). Therefore, we consider that research needs to examine treatment's effects in specific genres, and specifically in argumentative writing, the writing of schooling. Thus, we find the need for our meta-analysis to focus strictly on argumentative writing, the writing of schooling.

It is in the school where argumentative writing develops and embodies a proxy of accomplishments, where students can demonstrate their knowledge, communicative skills, maturity, and discourse abilities (Ferretti & Lewis, 2018). This genre has been the focus of attention in the United States or England in the last decade (Newell et al., 2011; Preiss et al., 2013). However, in Romance language-speaking countries, attention to this genre is more diverse: in Colombia (Decree 230/2002), France (Article D.311-5/2018), and Spain (Royal Decree 126/2014, 1105/2014, 2015), the curriculum highlights the importance of learning to write argumentative texts. It has to be noted that countries like Argentina (Law 26.206/2006), Chile (Law 20.370/2009), or Mexico (Law DOF30.09/2019) only point out the need to develop

oral argumentation skills. Therefore, argumentative skills (either written or oral) are considered by specific curricula not only across countries but also across educational legislation, where it is taken into account as a key component to foster critical thinking skills and a tool for developing, discussing, and producing knowledge. However, even if argumentative texts are supposed to be taught in elementary and high school, they are rarely brought to the classroom, and they tend to be left aside in favor of genres like narrative and expository writing (Sánchez Abchi et al., 2012).

15.2 Purpose of the Study

The specific purpose of this meta-analysis was to determine the effectiveness of argumentative writing interventions implemented in Romance languages on the quality of students' writing. We focus on a particular genre in a set of languages other than English in order to check whether the evidence gathered in other text genres and in other languages follows the same pattern. The following question was addressed: Do argumentative writing interventions in Romance languages have a significant positive effect on text quality? Previous meta-analyses showed a generalized effectiveness of writing interventions on text quality; thus, we hypothesized that argumentative writing interventions would have a significant positive effect on text quality. And thus, our goal was to determine the effectiveness of argumentative writing interventions implemented in Romance languages on the quality of the texts students produced.

15.3 Method

15.3.1 Inclusion and Exclusion Criteria

To be included in the meta-analysis, studies had to meet six criteria related to language, genre, study design, grade, type of student, and data.

Language
Studies had to be conducted in one of the six main Romance languages: Spanish, Portuguese, French, Italian, Romanian, or Catalan. Also, studies had to be conducted with native speakers of the language.

Genre
Studies had to teach argumentative writing. If the genre was taught together with other genres, it needed to provide data to calculate an ES for argumentative writing separately from the other genres. Inclusion was decided based on the defining characteristics of the argumentative genre, irrespective of the denomination used in the study. We understood argumentative writing as a text that presents a standpoint

grounded on evidence that aims at convincing the audience of the acceptability of a standpoint (Van Eemeren & Grootendorst, 2004; Vilar, 2021).

Study Design
Experimental or quasi-experimental studies that comprised at least a treatment group exposed to the intervention and a comparison group. As a result, we did not examine qualitative, correlational, single-case studies or studies where students acted as their own control. We included interventional studies independent of the type of treatment they implemented (e.g., strategy instruction, the process writing approach, word processing).

Grade
Studies had to include participants from primary education (Grade 1) to university students.

Type of Student
Studies had to be conducted with typically developing students attending regular schools or universities. Consequently, writing interventions implemented solely with students with learning disabilities were excluded.

Data
Studies needed to provide data to calculate an ES of the treatment on a measure of text quality at pretest and posttest. We consider text quality as the reader's evaluation of the overall merit of a text (Diederich, 1966), considering aspects of linguistic competence, in particular syntax, lexical, and orthography, and discursive competence, such as structure, coherence, and genre appropriateness (Grabowski et al., 2014; Van Esch et al., 2006).

15.3.2 Search Procedure

We searched as broadly as possible to find studies that could meet our criteria. Figure 15.1 represents the method to include studies in our meta-analysis. We conducted forward and backward searches in several databases including ERIC, ProQuest, Taylor & Francis, DOAJ, SciELO, Persée, and Google Scholar as well as other platforms such as ResearchGate and Academia.edu. We ran multiple searches with different combinations and translations of the following terms: *writing*, *argumentative text*, *argumentative writing*, *intervention*, *program*, *action research*, and *instruction.* Moreover, we contacted experts in the area looking for studies susceptible of being included, who provided six references that were finally included in this study.[1]

Scanning of articles was systematically performed by language. Studies were selected in three subsequent phases: (1) title screening, (2) abstract screening, and

[1] Pietro Boscolo and Steve Graham were the reference authors contacted.

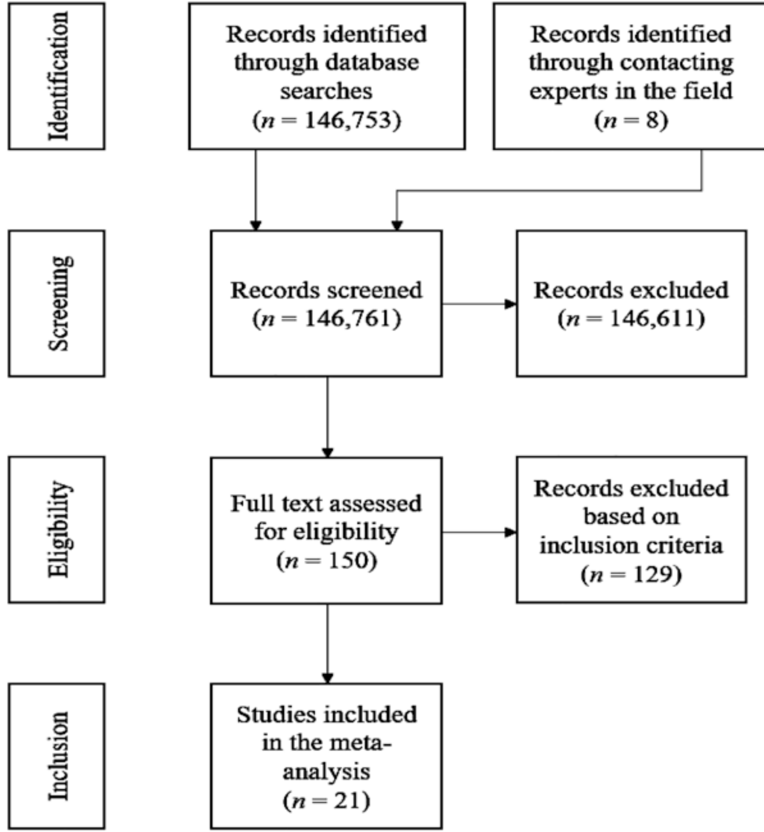

Fig. 15.1 Diagram of study identification, selection, and evaluation for inclusion

(3) full-text screening. The candidate studies were reviewed for relevance. If the title or the abstract did not provide enough information to determine inclusion or exclusion, the reference was included in the next phase. Final screening involved retrieving the full texts and evaluating the method and results sections in each of the candidate studies to determine whether they met the inclusion criteria. If the study met the criteria, we added it to our corpus of study.

Peer-reviewed, non-reviewed, and unpublished studies were susceptible to being included in the meta-analysis. It is unadvised to use publication status as a proxy for research quality as studies with positive significant results are more likely to be published and not all quality research is likely to be submitted for publication in a journal (Borenstein et al., 2009). Consequently, only including peer-reviewed studies has the risk of introducing publication bias into a meta-analysis, resulting in misinformed researchers, professionals, and policymakers (Mlinarić et al., 2017).

Of 150 studies collected, only 21 met the inclusion criteria. The most common reasons for exclusion were related to study design (k = 70), not implementing an

intervention (k = 26), and teaching a genre that was not argumentative writing (k = 19). Other reasons were not providing a measure of text quality (k = 5), not providing data to calculate an ES (k = 4),[2] reporting data presented in another study already included in the meta-analysis (k = 3), only providing results of oral productions (k = 1), and implementing a different intervention than the one presented (k = 1).

15.3.3 Coding of Study Features

To characterize the studies included in our meta-analysis, we coded each one for grade, schooling level, number of participants, language, type of publication, treatment, control treatment, and treatment duration (Table 15.1). We also coded each study for nine quality indicators (Gersten et al., 2005), described in Table 15.1, because the reliability of the results obtained in a meta-analysis depends on the quality of the primary studies from which the data is retrieved (Ahn et al., 2012). Despite the lack of consensus on how to evaluate the quality of primary studies (Ahn & Becker, 2016), we used these indicators following most previous meta-analyses on writing interventions, which provided a solid base for comparison (Graham & Perin, 2007).

The last quality indicator, *text quality scored reliably*, was part of the inclusion criteria in Graham and Perin (2007). We decided to include it as a quality indicator rather than as an inclusion criterion for several reasons: First, around a third of the studies in our meta-analysis did not report any evidence of reliably scoring text quality measures, and excluding these studies would have hindered the statistical power of our analyses. Second, studies providing evidence of scoring text quality reliably can be considered more trustworthy, and including this as a quality indicator allowed considering it when evaluating the results obtained. For each quality indicator, we assigned a score of 1 if the publication provided evidence that it was met. The only exception to this was the indicator *assignment of participants*. In this case, a score of 1 was assigned if participants were randomly assigned to each condition, and a score of 0.5 if participants were not randomly assigned, but the study provided evidence that participants in the different conditions were comparable. Scores were summed for each study to assess their overall quality and to test if study quality was moderating the ESs obtained. All studies were initially coded by the first author and subsequently coded by a trained researcher in the field to assess inter-coder reliability, which ranged from 0.85 to 1 for all coded variables.

[2] We contacted the authors to obtain the data needed to calculate ES if it was not available on the paper but met all other criteria. Studies were excluded if the data was no longer available or due to lack of response from the authors.

Table 15.1 Definitions for study characteristics and quality indicators

Study characteristics	Definition
Grade	Grade of the participants
School level	Elementary school for Grades 1–6, high school for Grades 7–12, and university onward
Number of participants	Total number of students included in the study (treatment plus control)
Language	Language used in the classroom during the intervention
Type of publication	Publications were categorized as peer-reviewed articles and non-reviewed publications, which included non-reviewed articles, thesis, book chapters, and conference papers
Treatment	The treatment implemented on the experimental group
Control's treatment	The treatment implemented on the control group
Treatment duration	Number of hours that the treatment was implemented
Study quality indicators	
Assignment of participants	Studies were classified as randomly assigning participants to conditions, assigning matching participants to conditions, or assigning participants to conditions without matching
Mortality equivalence	Mortality equivalence was met if over 90% of the participants in both conditions completed the study
No ceiling or floor effects	There were no ceiling or floor effects when the mean at posttest in all text quality measures in both conditions was at least one standard deviation away from the highest and lowest possible score
Pretest equivalence	Pretest equivalence was met if the study provided evidence that students in both conditions were matched in text quality measures
Instructor training	Instructor training was met when the study provided evidence that the person in charge of implementing the experimental treatment had received specific training
Control condition	Control condition was met when the study provided detailed information of the treatment implemented on the control group
Treatment fidelity	Treatment fidelity was met when the study provided evidence that the experimental treatment was administered as intended (over 80% fidelity)
Control of teacher effects	Teacher effects were controlled when instructors were randomly assigned to conditions or when they taught both conditions
Text quality scored reliably	Text quality was scored reliably when the study provided evidence that the measures of writing quality were scored reliably (interrater reliability over 0.60)

15.3.4 Calculation of Effect Sizes and Statistical Analyses

We calculated ESs through the standardized mean difference, which allows creating an index that is comparable across studies even if they use different scales to measure the outcome variable (Borenstein et al., 2009). When conditions were matched at pretest on text quality measures, we subtracted the mean score at posttest of the

control group from the mean score of the experimental group and divided the result by the pooled standard deviation of the two groups. When they were not, we calculated the ESs from gained scores, that is, subtracting the pretest scores from the posttest scores for each group. We applied Hedge's g correction to all ESs to avoid small sample size bias (Borenstein et al., 2009).

We calculated ESs only for text quality measures. When the study reported an overall text quality measure, we used it to calculate the ES. When there were separate measures related to text quality but no overall text quality measure, we calculated an ES for each separate measure and then averaged them to obtain an overall ES.

Finally, we examined all ESs to determine whether any of them was exerting excessive influence on the average weighted ES. ESs over three interquartile ranges above or below the mean were identified as outliers following Tukey's (1977) method. The ES of Ortega de Hocevar (2016a) was winsorized, that is, set to three interquartile ranges above the mean, to not exceed the maximum value established.

Independence of ESs

Four studies included two experimental groups but only one control group for comparison. We could not consider both ESs to be independent, as this would lead to incorrect estimates of the variance for the overall effect (Borenstein et al., 2009). Given that our goal was not to compare the effect of different treatments within the same study, we computed a combined ES for each one with a variance that took account of the correlation between the data provided by the two ESs of each study (Borenstein et al., 2009). These combined ESs were used for the analyses, but we present the individual ESs in Table 15.4.

Statistical Analyses

We used a random-effects model as we assumed that the true ES could vary between studies due to differences in their characteristics. The weight of each study was calculated by multiplying each ES by the inverse of its variance plus τ^2, the parameter that represents the variability across the population of studies (Borenstein et al., 2009; Lipsey & Wilson, 2001). We calculated an average weighted ES and the standard error of the mean (SE) for all studies together and for each treatment separately. Confidence and prediction intervals are provided, as the first addresses the precision of the mean and the second the distribution of true ESs (Borenstein et al., 2009). We calculated two measures of heterogeneity, Cochran's Q and I^2. While the Q statistic indicates whether the variability between ESs exceeds what would be expected due to sampling error alone, the I^2 statistic describes the percentage of variation across studies that is due to heterogeneity rather than chance (Higgins & Thompson, 2002).

Subgroup Analyses

We only conducted subgroup analyses based on treatment to explore possible differences in the magnitude of ESs and to explain excess variability. We conducted these analyses even if heterogeneity was non-significant, as Q tests are often underpowered and fail to capture real heterogeneity in the sample (Oxman & Guyatt, 1992; Thompson & Higgins, 2002).

Publication Bias

We applied different methods to assess the existence of publication bias in our meta-analysis. We performed a visual analysis of the funnel plot and combined it with the trim and fill procedure (Duval & Tweedie, 2000) to estimate possible missing studies based on the funnel plot asymmetry.

Software

All statistical analyses were carried out using *Meta-Essentials* (Suurmond et al., 2017) except for the meta-regression, where we used Wilson's SPSS macros (Lipsey & Wilson, 2001; Wilson, 2006).

15.4 Results

15.4.1 Treatments

We only found studies applying two different treatments to the experimental group (Table 15.2). In the treatment *explicit teaching of text structure*, only implemented by three studies, teaching focused on the prototypic structure of argumentative writing and arguments as well as on thematic progression. The second treatment, *explicit teaching of strategies*, was implemented by most studies (k = 18), and instruction focused on explicitly teaching strategies to plan, produce, revise, and/or edit the text (Graham, 2006) as well as on the knowledge and skills to properly develop these processes (Graham & Perin, 2007). Seven studies implemented the SRSD model, which is structured in six stages of instruction, moving from background knowledge to describing, modeling, memorizing, and finally independently using the strategies taught (Harris & Graham, 1996). Eleven studies explicitly taught strategies that focused on one or more of the writing processes without following the SRSD model.

As for the control group, in most cases, the treatment was implemented in the language classroom and followed the standard writing curriculum. Two studies were developed in other curricular environments:[3] Campaner and De Longhi (2007), in Language and Environmental Science, and Ossa et al. (2016), in a course on critical thinking in the degree of Psychology. The control groups of these two studies were instructed following the corresponding subject curriculum, which included writing instruction. All these studies were coded as *standard writing and/or subject content instruction*, as most studies did not provide enough information to properly characterize them. Two studies included control groups with SRSD instruction, as they were evaluating the effect of variations of the SRSD model (Araújo et al., 2017; Prata et al., 2018). Finally, four studies did not provide any information of the treatment administered to the control group.

[3] Luna et al. (2020) was implemented in a Degree of Education and Psychology. It was part of a set of activities focused on learning to write better argumentative texts.

Table 15.2 Definitions for instructional treatments

Treatment	Definition
Explicit teaching of text structure	Teaching focuses on the prototypic structure of the genre as well as on thematic progression and the elements of an argument
Explicit teaching of strategies	
SRSD	The SRSD model is structured in six stages of instruction, moving from background knowledge to describing, modeling, memorizing, and finally independently using the strategies being taught (Harris & Graham, 1996)
Non-SRSD	Explicit teaching of strategies to plan, produce, revise, and/or edit the text (Graham, 2006)
Standard writing and/or subject content instruction	Instruction time primarily devoted to grammar instruction and independent writing with little to no support

Table 15.3 presents all studies included in the meta-analysis and reports the following information about them: publication type, control's treatment, grade, number of participants, language of instruction, quality indicator score (QIS), treatment duration, unbiased ES, and a description of the treatment implemented. Four studies are reported twice as they provided two different ESs.[4] In total, there were 25 ESs from 21 different studies. As far as we know, only one of the studies presented (Fidalgo et al., 2015) has been included in any previous meta-analyses (Koster et al., 2015).

15.4.2 *Quality Scores*

Table 15.4 presents the average total QIS for studies in each treatment and overall. Each study's total score was obtained by summing the score of each individual indicator. We also calculated the percentage of studies meeting each individual indicator in each treatment and overall. The average quality score was 5.36 (SD = 2.58), ranging from an average of 4.55 (SD = 2.52) in the studies implementing non-SRSD strategy instruction to 6.93 (SD = 1.79) in those following the SRSD model of strategy instruction.

Most studies showed no ceiling or floor effects at posttest ($N = 17$) and presented evidence that the treatment and the control conditions were equivalent at pretest in terms of the quality of their texts ($N = 15$). Two thirds of the studies ($N = 14$) conducted procedures to train the instructor to implement the treatment appropriately, described the treatment implemented in the control condition, and presented evidence that the different text quality measures were scored reliably. Over half of the studies ($N = 12$) randomly assigned instructors to conditions, or instructors taught

[4] In those studies with two ESs, the number of participants only includes the participants in the control group and in the experimental group of that treatment.

both conditions to control possible teacher effects. Four studies randomly assigned participants to conditions, and 13 did not but provided evidence that participants in all conditions were comparable. Less than half of the studies (N = 10) provided evidence that the experimental treatment was implemented as intended. Finally, less than a third (N = 6) of the studies had groups with equivalent mortality, as in most cases either it was not reported or more than a 10% of students did not complete the whole treatment. A detailed relation of the percentage of studies in which quality indicators were met can be found in Table 15.4.

15.4.3 Effect Sizes

We calculated a total of 25 ESs from 21 studies involving 2868 participants from Grade 2 to university (see Table 15.3). Studies were conducted in five languages: Spanish (k = 11), Portuguese (k = 6), Italian (k = 2), French (k = 1), and Catalan (k = 1). Four studies included two different treatment groups that were compared with the same control group. The ESs for each treatment are presented separately in Table 15.4 but were combined for the analyses to assure that all ESs were independent.

All ESs were positive and resulted in an average weighted ES of 0.94 (SE, .12; 95% CI: 0.70 and 1.19; τ^2 = .18), significantly greater than no effect (see Table 15.5). The test for heterogeneity revealed that there was more variability than would be expected due to sampling error alone (Q, 126.92; p, .000), and the I^2 statistic indicated that 84.24% of the variability was likely to be produced by between-study factors. We then proceeded to explore each treatment individually with subgroup analyses with two goals: to determine if ESs were significantly different based on the treatment implemented and if treatment accounted for excess variability between ESs.

15.4.4 Text Structure

We calculated 3 ESs from 3 studies involving 177 participants that explicitly taught text structure. This treatment was implemented twice in Spanish with university students and once in French in Grade 6. The average weighted ES was 0.82 (SE = .15; 95% CI: 0.19 and 1.45), significantly greater than no effect. The Q test was non-significant (Q, 2.04; p, .361), and an I^2 statistic of 1.93% indicated that there was a small amount of variability between ESs.

Low number of ESs reduces the precision of the analyses, resulting in wide confidence and prediction intervals (Borenstein et al., 2009; Lipsey & Wilson, 2001).

Table 15.3 Study characteristics, QIS, and ES

Study	Pub. type	Treat. contr.	Grade	*N*	Lang.	QIS	Treat. dur.	ES	Treatment
Explicit teaching of text structure and text features									
Dolz and Pasquier (1994)	PA	NI	6	80	F	1	10	1.08	Explicit teaching of argumentative texts' structure and main features
Luna et al. (2020)	PA	SI	U	68	S	8	3.5	0.68	Virtual training. Explicit instruction to write integrative and well-structured arguments
Suárez (2006)	NA	SI	U	29	S	5	8	0.60	Focus on explicit knowledge of genre characteristics and study of models
Explicit teaching of strategies: non-SRSD									
Bolívar and Montenegro (2012)	NA	NI	10	52	S	1.5	6	0.56	Strategy-focused training in planning and revising with self and co-evaluation
Campaner and de Longhi (2007)	PA	SI	12	60	S	4	18	0.96	Strategy instruction through role-playing
Crasnich and Lumbelli (2004)	PA	SI	11, 12	60	I	2	10	1.26	Focus on strategies to plan the text considering the addressee's viewpoint
Fidalgo et al. (2015)	PA	SI	6	62	S	7.5	2	1.07	Observation and group reflection of a model, direct declarative instruction, peer feedback, and solo practice
Gárate et al. (2014)	PA	SI	10	42	S	4.5	15	1.09	Strategies to plan and structure a text plus explicit knowledge of the genre
Del Longo (2013)	T	SI	11, 12	124	I	5.5	10	0.83	Strategies for notetaking, drafting, mapping, and summarizing
López et al. (2017): direct instruction	PA	SI	5, 6	88	S	7.5	2	1.07	Direct instruction of strategies to plan and draft; use of mnemonics and graphic organizers

(continued)

Table 15.3 (continued)

Study	Pub. type	Treat. contr.	Grade	*N*	Lang.	QIS	Treat. dur.	ES	Treatment
López et al. (2017): modeling	PA	SI	5, 6	87	S	7.5	2	1.05	Modeling of strategies to plan and draft a text through a semi-scripted think-aloud
Ortega de Hocevar (2016a)	PA	NI	6	94	S	2.5	35	2.89	Teaching and modeling of strategies to plan, write, and revise a text
Ortega de Hocevar (2016b)	CP	NI	3	107	S	1.5	35	0.86	Teaching and modeling of strategies to plan, write, and revise a text
Ossa et al. (2016)	NA	SI	U	39	S	5	2	0.69	Teaching of metacognitive strategies and the usage of decision diagrams
Torrance et al. (2015): process and product	PA	SI	6	69	S	8.5	10	2.37	Strategy-focused training in setting product goals and in writing procedures to plan and revise
Torrance et al. (2015): product only	PA	SI	6	45	S	8.5	10	2.22	Strategy-focused training in setting product goals
Explicit teaching of strategies: SRSD									
Araújo et al. (2017)	PA	SRSD	4	178	P	4	18	0.38	SRSD. Instruction on multimodal writing
Festas et al. (2014)	PA	SI	8	380	P	7.5	12	0.72	SRSD and teachers' practice-based professional development
Limpo and Alves (2013): planning	PA	SI	5, 6	87	P	8.5	18	1.05	SRSD. Focus on a strategy to plan opinion essays
Limpo and Alves (2013): sentence-combining	PA	SI	5, 6	78	P	8.5	18	0.72	SRSD. Focus on sentence-combining
Limpo and Alves (2014)	PA	SI	5, 6	192	P	8.5	5	0.60	SRSD. Focus on planning
Malpique (2014): dual coding	T	SI	9	45	P	8.5	18	1.53	SRSD with verbal and visual mnemonics
Malpique (2014): verbal coding	T	SI	9	45	P	8.5	18	0.57	SRSD with verbal mnemonics
Prata et al. (2018)	PA	SRSD	9	230	P	6	11	0.23	SRSD in a cooperative setting

(continued)

Table 15.3 (continued)

Study	Pub. type	Treat. contr.	Grade	*N*	Lang.	QIS	Treat. dur.	ES	Treatment
Salas et al. (2021)	PA	SI	2, 4	645	C	5.5	11	0.77	SRSD

Note: *Pub. type* publication type, *Lang.* language, *Treat. contr.* treatment for control group, *QIS* quality indicator score, *ES* effect size, *Treat. dur.* treatment duration. For type of control condition, *NI* no information, *SI* standard writing and/or subject content instruction, *SRSD* self-regulated strategy development. For publication type, *PA* peer-reviewed article, *T* thesis, *NA* non-reviewed article, *CP* conference paper. For grade, *U* university. For language, *F* French, *S* Spanish, *P* Portuguese, *C* Catalan, *I* Italian

Table 15.4 Total quality score and percentage of studies in which quality indicator was met per treatment type

Treatment	*N*	*M* (SD)	Assign.	Mort.	*C* or *F*	Pretest eq.	Instr. train.	Contr. type	Treat. fidelity	Teach. effects	TQ assess.
All studies	21	5.36 (2.58)	50	29	81	71	67	67	48	57	67
Text structure	3	4.67 (2.52)	33	33	100	33	67	33	33	67	67
Strategy instruction	18	5.47 (2.51)	53	28	78	78	67	72	50	56	67
SRSD	7	6.93 (1.79)	50	43	86	71	100	100	86	71	86
Non-SRSD	11	4.55 (2.52)	55	18	73	82	45	55	27	45	55

Note: *N* number, *M (SD)* mean (standard deviation), *Assign.* assignment, *Mort.* mortality, *C or F* ceiling or floor, *Pretest eq.* pretest equivalence, *Instr. train.* instructor training, *Contr. type* control type, *Treat. fidelity* treatment fidelity, *Teach. effects* teacher effects, *TQ assess.* text quality assessment

Table 15.5 Average weighted ESs and confidence intervals for writing treatments

Treatment	*N*	ES	SE	Confidence interval	Heterogeneity		Prediction interval
					Q	I^2	
All	21	0.94*	.12	[0.70, 1.19]	126.92*	84.24	[0.02, 1.87]
Text structure	3	0.82*	.15	[0.19, 1.45]	2.04	1.93	[0.17, 1.47]
Strategy instruction	18	0.97*	.14	[0.68, 1.25]	124.88*	86.39	[−0.03, 1.96]
SRSD	7	0.63*	.1	[0.39, 0.88]	19.23*	68.79	[0.08, 1.18]
Non-SRSD	11	1.20*	.19	[0.78, 1.63]	66.32*	84.92	[−0.16, 2.57]

$^*p < .05$

However, we decided to still conduct these analyses as this was the only treatment besides strategy instruction and it included the only study in French, as can be observed in Table 15.5. Nonetheless, it is necessary to interpret these results with caution given the mentioned methodological limitations.

15.4.5 Strategy Instruction

We calculated 22 ESs from 18 studies involving 2691 participants that explicitly taught writing strategies. This treatment was implemented from Grade 2 to university (nine in elementary school, eight in high school, and one in university). Nine of the studies were developed in Spanish, six in Portuguese, and two in Italian, and one was developed in Catalan. All ESs were positive, ranging from 0.23 (Prata et al., 2018) to 2.89 (Ortega de Hocevar, 2016a), resulting in an average weighted ES of 0.97 (SE = .14; 95% CI: 0.68 and 1.25), significantly greater than no effect. However, the amount of variability in ESs exceeded what would be expected due to sampling error alone (Q, 124.88; p, .000), and the I^2 statistic indicated that 86.39% of the variability was likely to be produced by between-study factors. We conducted a Q test to determine if there were differences between the ESs obtained by the studies applying the two treatments, text structure and strategy instruction, and it revealed no significant differences (Q_{between}, 0.53; p, .465).

We subsequently divided the strategy instruction studies between those that followed the SRSD model and those that did not, as in previous meta-analyses SRSD instruction yielded higher ESs than any other mode of strategy instruction. Moreover, this division could also help to explain excess variability as it did in Graham and Perin (2007). The average weighted ES for SRSD instruction was 0.63 (p, .000; SE, .1; 95% CI: 0.39 and 0.88), with a significant test of heterogeneity (Q, 19.23; p, .004) and an I^2 statistic of 68.79%. As for non-SRSD strategy instruction, the average weighted ES was 1.2 (p, .000; SE, .19; 95% CI: 0.78 and 1.63). The test of heterogeneity was also significant (Q, 66.32; p, .000), and the I^2 statistic indicated that 84.92% of the variability was produced by between-study factors. However, this subgroup analysis did help to explain excess variability (Q_{between}, 6.99; p, .008) and showed that ESs were significantly smaller in the studies following the SRSD model. However, it did not result in homogenous subgroups as both tests of heterogeneity were significant and had high I^2 statistic values.

15.4.6 Publication Bias

We conducted several tests to assess if our meta-analysis could be affected by publication bias and to what extent. The visual analysis of the funnel plot asymmetry showed that there were more studies toward the right side, where significant positive results were found (see Fig. 15.2). The trim and fill procedure (Duval & Tweedie, 2000) imputed one value to achieve symmetry in the funnel plot. We calculated the average weighted ES including the imputed value, obtaining an average effect of 0.87 (95% CI: 0.58 and 1.15). When we compared these values with the ones obtained originally (g = 0.94, 95% CI: 0.70 and 1.19), we observed small differences: the magnitude of the effect decreased by .07, and the confidence interval increased slightly.

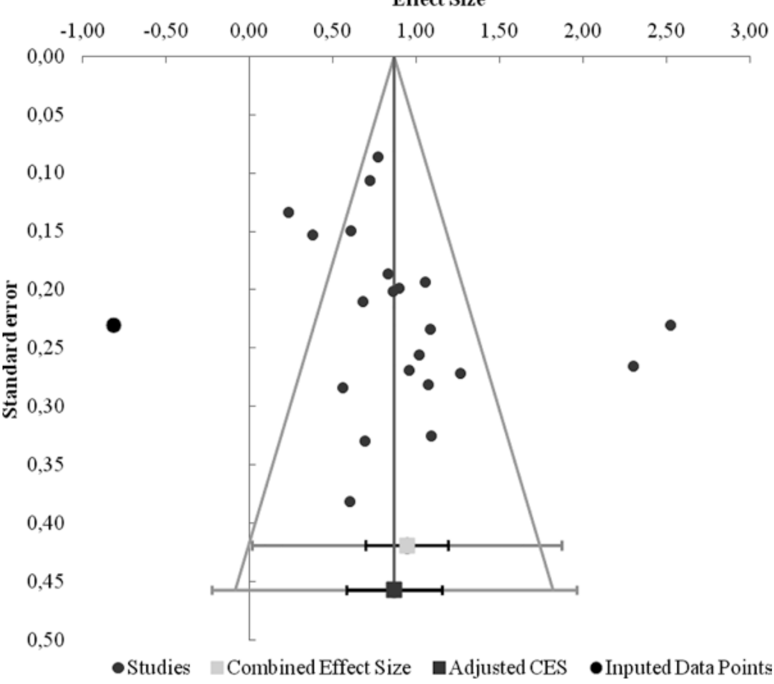

Fig. 15.2 Funnel plot of ESs and SEs with the trim and fill procedure

Based on these results, publication bias could be discarded as a threat to the overall results obtained in our meta-analysis. However, it is worth highlighting that none of the ESs reported in this chapter are either negative or positive but non-significant, which seems to indicate that studies that report non-significant or negative results are not only unlikely to be published in scientific journals but also likely to be considered unworthy of publication overall.

15.5 Discussion

This meta-analysis aimed to determine the effectiveness of argumentative writing interventions in Romance languages on text quality. The meta-analysis included 21 studies with 25 ESs in total, resulting in an average weighted ES of 0.94 standard deviations. Therefore, we can argue, thus, that implementing an intervention on argumentative writing results in positive gains in the quality of the texts' students produced. However, there was significant heterogeneity between ESs, meaning that most of the variability was likely to be produced by between-study factors. Following Cohen's (1988) rule of thumb, 0.94 would be considered a large ES. However, it is necessary to take into account the context in which this particular estimate was

obtained, and we should rather interpret the magnitude of the effect in relation to results obtained in previous research to get a better understanding of its meaning (Hill et al., 2008).

We found two different treatments in our sample to improve argumentative writing: text structure and strategy instruction. Treatments addressing text structure focus on providing the prototypic structure of the genre while also describing the core elements of an argument. Treatments addressing strategy instruction provide students with guidelines, cues, and procedures to assess and develop their writing (e.g., self-regulated strategies to encourage revision processes).

Our results for text structure instruction were larger than previous studies from kindergarten to Grade 8 (Graham et al., 2012, 2015a) but similar to those previous studies that observed Grades 4–6 of Koster et al. (2015). While children at the age of 9 have already mastered the structure of a written narrative (Ravid, 2005), mastering the text structure of argumentative texts is a lot more demanding (Berman, 2008). Moreover, text structure instruction in the studies we reviewed focused not only on the structure of the text but also on the structure of the arguments given within it (Dolz & Pasquier, 1994; Luna et al., 2020; Suárez, 2006), thus helping students organize their texts and the arguments presented to support their standpoint. Therefore, it seems reasonable to assume that text structure instruction yields larger ESs in argumentative writing than in other text genres due to the idiosyncrasies of the genre. Our results, however, must be interpreted with caution, as only three studies in our meta-analysis applied this treatment and the average quality indicator score was medium (Dolz & Pasquier, 1994; Luna et al., 2020; Suárez, 2006).

The other mentioned treatment, strategy instruction, has been widely reported in previous meta-analyses, and our results align with those obtained previously in Anglophone contexts, suggesting that strategy instruction is an effective treatment also in Romance language contexts (Graham, 2006; Graham et al., 2012, 2015a; Graham & Perin, 2007; Koster et al., 2015).

In our sample, seven studies applied the SRSD model with a high average quality score, and therefore, it arose as an effective treatment across Romance language contexts. Nonetheless, our average effect size was smaller than in previous meta-analyses that differentiated between SRSD instruction and other types of strategy instruction (Graham et al., 2012, 2015a; Graham & Perin, 2007). We argue that this difference could be explained by the fact that two of the studies included in our sample also applied SRSD instruction in the control condition, which significantly affected the magnitude of the ES as we saw in the meta-regression.

The other remaining 11 studies implemented other types of strategy instruction differing from the SRSD model. Less confidence can be placed in these results as their average quality score was lower: most of them did not present evidence of implementing the treatment as intended, less than half trained the instructor in charge of implementing the treatment and controlled for teacher effects, and only over half of them reliably scored text quality. In comparison to previous Anglophone meta-analyses, we obtained larger estimated sizes (Graham et al., 2012, 2015a; Graham & Perin, 2007) indicating that strategy instruction was more effective in this context when teaching argumentative writing in a Romance language. However,

further research will have to be conducted in order to elucidate what is producing the differences in the magnitude of the effect between these strategy instruction studies and the SRSD studies included in our meta-analysis and previous ones. Nonetheless, this tendency seems to point out that not only the difference in strategy instructions treatment can have rather different outcomes but the implementation procedure and organization need to be carefully attended.

As for treatments' comparison, text structure and strategy instruction were similarly effective in improving text quality. Only Koster et al. (2015) conducted analyses to assess these differences, which in their case also resulted in non-significant differences. We found significant differences between SRSD and non-SRSD instruction in favor of the second, which deviates from previous results. Graham et al. (2012, 2015a) and Graham and Perin (2007) all found that SRSD instruction yielded significantly higher ESs than other types of strategy instruction.

Some of the differences mentioned above could be explained by several factors: First, we only included studies on argumentative writing, while previous meta-analyses did not have genre as part of their inclusion criteria and included studies implementing interventions in different genres. We already mentioned that genre could be affecting the magnitude of the effect in text structure instruction. As for strategy instruction, Graham and Perin (2007) found no differences between narrative and expository writing, while Koster et al. (2015) found that ESs were smaller in expository writing than in narrative, informative, and persuasive writing. Further research should be conducted to elucidate whether the magnitude of the effect is moderated by genre or not and if that depends on the treatment implemented.

Second, most studies in previous meta-analyses were conducted in English-speaking countries, while studies in our meta-analysis were conducted in Romance language-speaking countries. It is also possible that linguistic and/or cultural differences could also be affecting the magnitude of the ESs obtained. More research is needed in order to elucidate whether this is the case or there are other variables explaining these differences.

Finally, differences in terms of the methodologies and computational models used should be considered: Graham (2006) presented unweighted mean effects, Graham and Perin (2007) used a weighted fixed-effects model, and Graham et al. (2012, 2015a) and Koster et al. (2015) all used a weighted random-effects model. However, Koster et al. (2015) analyzed differences between treatments through a contrast analysis. In contrast, we applied a weighted random-effects model and analyzed differences between treatments through Q tests (Sedgwick, 2013).

To sum up, this meta-analysis shows how there is a vast array of evidence-based practices and methodologies available that have been proven empirically to be effective to promote and develop argumentative writing and to provide children tailored assistance in their academic development. It has also to be noted that not only traditional interventions on low-level skills will enact on the development of writing skills but also the interventions on the higher-level skills of planning and revising, textual structure, and instruction strategies, as those included in this meta-analysis shall be considered at all educative levels (Graham & Harris, 2005a, b; Limpo & Alves, 2018), as autoregulation interventions are clear predictors of text

quality across schooling (Graham & Harris, 2018; Oddsdóttir et al., 2021). Process-focused writing interventions are particularly effective when they are paired with self-regulation strategies (self-regulation strategy development, SRSD; Graham & Harris, 2005a). SRSD interventions are an effective method that has been shown to contribute to the writing development both of typically developing students (Limpo & Alves, 2018) and of children with language learning disabilities (Baker et al., 2009; Graham & Harris, 2005b; Lienemann et al., 2006; Mason et al., 2011). Remarkably, this meta-analysis draws evidence of its effectiveness beyond English and draws attention to its impact on Romance languages.

15.6 Educational Implications

Major recommendations to improve the quality of students' argumentative writing can be drawn from the results of this meta-analysis, adding to a long line of evidence-based recommendations for teachers and practitioners (Coker, 2013; Gerde et al., 2012; Graham & Harris, 2014). First, teachers should strongly consider implementing strategies to plan, revise, and/or edit their texts. Our results, and evidence-based practices across languages, show that strategy instruction successfully enhances students' writing across ages and languages. Strategy instruction can target specific aspects of text production that may be especially troublesome for the students being taught. For example, a student that does not plan can be taught how to brainstorm and organize his/her ideas before writing.

Strategies to improve writing performance have been proved efficient from a writing quality standpoint, but on top of this, preventive actions such as the ones seen in this chapter can also have an incidence in self-perceptions of text quality (Morphy & Graham, 2012), which, if not addressed, can derive in impoverished self-efficacy beliefs, associated with poor writing skills (Bruning & Kauffman, 2016). Therefore, this kind of instruction does not only scaffold learning but provide self-sufficiency and autonomy and can even impact on a self-assurance level.

Second, teachers should strongly consider teaching students the prototypic structure of argumentative writing, its core elements, and how to organize them in a text from early ages. Start by providing students with a clear structure to follow, model how to use it, and gradually move toward independently using it. Also, explain the different elements of an argument, distinguishing between those that are indispensable (claim and grounds) and those that further ground and limit the argument. Scaffolding and modeling the interventions, step by step, provides students an insight on how the mind of a proficient writer operates.

Third, incorporate structured and fine-grained assessments different from holistic assessments, and involve students in this process. Not only the pedagogical tools and formats have changed, but also the grading and revision process have also shifted. Student peer review has been promoted and found to be an effective and reliable pedagogical strategy (Li et al., 2020). It allows students to enhance self-perception and self-assessment and engage in processes of critical thinking (Gaynor,

2020). In addition to perceptions and beliefs, quantitative assessment of the impact of peer review has been found to positively affect final test scores (Serrano-Aguilera et al., 2021). Li et al.'s (2020) meta-analysis of peer review efficacy shows several aspects to be considered by practitioners and professors: (1) peer assessment is more efficient if students are trained specifically and not only provided with rubrics, and (2) peer review is more efficient when students are both assessors and assessees.

Fourth, do not underestimate students' abilities to develop texts in different genres at all ages. SRSD teaching strategies can be effective in improving argumentative writing of novice writers as early as Grade 2 or 3 (Salas et al., 2021; Ortega de Hocevar, 2016b). Each grade will require developmental-matched adaptations and specifically planned interventions to meet with the basic competencies expected from the students, but SRSD interventions are not constricted by age, and they are efficient transversally in genre and age (Graham et al., 2012; Oddsdóttir et al., 2021). Argumentative writing can be practiced by writing to the school board asking for free fruit in recess or role-playing where groups have to defend their arguments to exonerate or convict a fictitious person. There are infinite real-life examples for children to be able to play with argumentative texts or any other genre (Nemirovsky, 1999).

Overall, our results support that explicitly teaching strategies and/or knowledge successfully improves the quality of students' argumentative writing. Even though the focus of these two treatments is different, both involve sustained, explicit, and systematic instruction aimed at facilitating students' mastery and independent usage of the strategies or knowledge taught.

15.7 Limitations

This meta-analysis had several limitations that should be considered when interpreting its results. First and foremost, we only found 21 studies that met the inclusion criteria. Such a small number of ESs restricted our options to analyze the data and limited the statistical power of our analyses (Borenstein et al., 2009). In this line, we only included experimental and quasi-experimental studies that provided data to calculate an ES. Qualitative, single-subject design and correlational studies were left out of this study as well as studies in which students acted as their own control. Future investigations should try to assess and find an evaluation protocol to be able to report the contribution of these studies. Including case studies and qualitative assessments can help develop a more complete background planification for interventions.

It is important to remark that we focused on argumentative writing in Romance languages and our results should be interpreted within those boundaries. Both genre and language could be moderating the magnitude of the effect, although further research should be conducted in order to determine the extent of their impact. Likewise, we limited our analyses to studies that assessed the quality of the texts' students produced, and we should not draw any conclusions about other aspects of text production. Even though all studies measured text quality, they did not use the

same measures or procedure to evaluate it. Some studies used a holistic measure, while others used analytical measures or combined both. We addressed this issue by calculating ESs with holistic measures when they were available or by combining the different analytic measures when no holistic measure was presented. Our results should be interpreted taking this variability into account.

One important limitation was regarding the age groups included in our meta-analysis. We included studies with participants from Grade 1 to higher education. However, we did not find any study in Grades 1 or 7 and only one per grade in Grades 3, 8, and 10. Therefore, the amount of evidence covering each grade level is, in some cases, scarce, and practical implications of our results for specific grades should be inferred with caution. Similarly, even though we included studies conducted in five Romance languages, most of them were in Spanish or Portuguese. We only found one study in French, one in Catalan, two in Italian, and none in Romanian. Further research is needed to fill these gaps.

Finally, an issue with this and most meta-analyses is related to dissimilar control comparisons. Standardized mean differences are calculated through subtracting the mean scores at posttest of the control group to the mean score of the treatment group and dividing the result by the pooled standard deviation. Therefore, two studies could be assessing the same treatment and obtain very different ESs depending on the treatment implemented to the control group. Based on this concern, we decided to include control treatment in our meta-regression, which was the only significant variable moderating the magnitude of the effect. From the primary researchers' point of view, it is important to describe in detail not only the treatment implemented to the experimental group but also the one implemented to the control group. From the meta-analysts' point of view, it is essential to also consider the treatment being implemented to the control group as it can have a significant impact on the ESs obtained.

15.8 Final Remarks

In conclusion, identifying and understanding effective evidence-based teaching practices through high-quality intervention research helps teachers and policymakers provide students with the tools they need to become skilled writers and meet the demands requested at school and work and in their personal lives. In this direction and despite its limitations, this meta-analysis provides crucial information to the field of writing research on argumentative writing. Moreover, it has helped to broaden our understanding of the effect of argumentative writing interventions implemented in Romance languages on text quality. As our results show, argumentative writing can be a challenging task, but interventions focused on the genre can help students to produce texts of higher quality. However, more research is needed in order to deepen our understanding of the effectiveness of argumentative writing interventions and how different variables can affect the magnitude of the outcome obtained.

References[5]

Ahn, S., & Becker, B. J. (2016). Incorporating quality scores in meta-analysis. *Journal of Educational and Behavioral Statistics, 36*(5), 555–585. https://doi.org/10.3102/1076998610393968

Ahn, S., Ames, A. J., & Myers, N. D. (2012). A review of meta-analyses in education: Methodological strengths and weaknesses. *Review of Educational Research, 82*(4), 436–476. https://doi.org/10.3102/0034654312458162

Alves, R. A., & Limpo, T. (2015). Progress in written language bursts, pauses, transcription, and written composition across schooling. *Scientific Studies of Reading, 19*(5), 374–391. https://doi.org/10.1080/10888438.2015.1059838

*Araújo, C. L., Osório, A. J., & Martins, A. P. (2017). Primary school students' choices in writing opinion essays: Using ICT combined with self-regulated strategies. In A. Tatnall & M. E. Webb (Eds.), *Tomorrow's learning: Involving everyone. Learning with and about techonologies and computing* (pp. 323–334). IFIP AICT. Springer.

Article D.311-5/2018, July 17, organisation des spécificités du cycle des apprentissages fondamentaux, de consolidation et des approfondissements. [organization of the specificities of the cycle of fundamental learning, consolidation and deepening] (2018). *Le Bulletin Officiel de l'Éducation Nationale, de la Jeunesse et des Sports, 30,* 2018, July 26.

Badger, R., & White, G. (2000). A process genre approach to teaching writing. *ELT Journal, 54*(2), 153–160. https://doi.org/10.1093/elt/54.2.153

Baker, S. K., Chard, D. J., Ketterlin-Geller, L. R., Apichatabutra, C., & Doabler, C. (2009). Teaching writing to at-risk students: The quality of evidence for self regulated strategy development. *Exceptional Children, 75*(3), 303–318. https://doi.org/10.1177/001440290907500303

Bangert-Drowns, R. L. (1993). The word processor as an instructional tool: A meta-analysis of word processing in writing instruction. *Review of Educational Research, 61*(1), 69–93. https://doi.org/10.3102/00346543063001069

Beauvais, C., Olive, T., & Passerault, J.-M. (2011). Why are some texts good and others not? Relationship between text quality and management of the writing processes. *Journal of Educational Psychology, 103*(2), 415–428. https://doi.org/10.1037/a0022545

Berman, R. A. (2008). The psycholinguistics of developing text construction. *Journal of Child Language, 35*(4), 735–771. https://doi.org/10.1017/S0305000908008787

Biber, D., Nekrasova, T., & Horn, B. (2011). The effectiveness of feedback for L1-English and L2-writing development: A meta-analysis. *ETS Research Report Series, 2011*(1), i–99. https://doi.org/10.1002/j.2333-8504.2011.tb02241.x

*Bolívar, A., & Montenegro, R. (2012). Producción de textos argumentativos escritos en estudiantes de décimo grado. [Production of argumentative texts written in student decimo grado] *Escenarios, 10*(2), 92–103. https://doi.org/10.15665/esc.v10i2.223

Borenstein, M., Hedges, L., Higgins, J., & Rothstein, H. (2009). *Introduction to meta-analysis*. Wiley. https://doi.org/10.1111/j.1751-5823.2009.00095_15.x

Bruning, R. H., & Kauffman, D. F. (2016). Self-efficacy beliefs and motivation in writing development. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research, 2nd ed. (pp. 160–173). The Guilford Press.*

*Campaner, G., & de Longhi, A. L. (2007). La argumentación en Educación Ambiental. Una estrategia didáctica para la escuela media [The argumentation in Environmental Education. A teaching strategy for middle school]. *Revista Electrónica de Enseñanza de las Ciencias, 6*(2), 442–456.

Clyne, M. (1987). Cultural differences in the organization of academic texts. *Journal of Pragmatics, 11*, 211–247. https://doi.org/10.1016/0378-2166(87)90196-2

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates. https://doi.org/10.1016/C2013-0-10517-X

[5] References of studies included in the meta-analysis are marked with an asterisk.

Coker, D. L. (2013). Writing instruction in preschool and kindergarten. In S. Graham, C. MacArthur, & J. Fitzgerald (Eds.), *Best practices in writing instruction* (pp. 26–47). The Guilford Press.

*Crasnich, S., & Lumbelli, L. (2004). Improving argumentative writing by fostering argumentative speech. In G. Rijlaarsdam (Series Ed.), G. Rijlaarsdam, H. Van den Bergh, & M. Couzijn (Vol. Eds.), *Studies in writing. 14: Effective learning and teaching of writing, part 1, Studies in Learning to Write* (2nd Ed, pp. 181–196). Kluwer Academic Publishers. https://doi.org/10.1007/978-1-4020-2739-0_14

Decree 230/2002, February 11, de ordenación de normas en materia de currículo, evaluación y promoción de los educandos y evaluación institucional. [Drecree 230/2002, February 11, regulation of standards in the field of curriculum, evaluation and promotion of students and institutional evaluation] (2002). *Diario Oficial de Colombia, 44.710,* 2002, February 15, 1–24. https://www.mineducacion.gov.co/1621/articles-103106_archivo_pdf.pdf

*Del Longo, S. (2013). *Strategie e strumenti di scrittura per argomentare. Ipotesi di intervento* [*Strategies and writing tools to argue. Intervention hypothesis*] (Doctoral thesis, Scuola di Dottorato di Ricerca in Scienze Pedagogiche dell'Educazione e della Formazione). Università degli Studi di Padova.

Diederich, P. B. (1966). How to Measure Growth in Writing Ability. *English Journal, 55*(4), 435–449. https://doi.org/10.2307/811436

*Dolz, J., & Pasquier, A. (1994). Enseignement de l'argumentation et retour sur le texte. *Repères, recherches en didactique du français langue maternelle* [Teaching argumentation and reviewing the text. Landmarks, research in teaching French as a mother tongue]*, 10*, 163–179. https://doi.org/10.3406/reper.1994.2135

Duval, S., & Tweedie, R. (2000). Trim and fill: A simple funnel-plot-based method of testing and adjusting for publication bias in meta-analysis. *Biometrics, 56*(2), 455–463. https://doi.org/10.1111/j.0006-341X.2000.00455.x

Ferretti, R. P., & Lewis, W. E. (2018). Knowledge of persuasion and writing goals predict the quality of children's persuasive writing. *Reading and Writing: An Interdisciplinary Journal*. https://doi.org/10.1007/s11145-018-9918-6

*Festas, I., Oliveira, A. L., Rebelo, J. A., Damião, M. H., Harris, K., & Graham, S. (2014). Professional development in Self-Regulated Strategy Development: Effects on the writing performance of eighth grade Portuguese students. *Contemporary Educational Psychology, 40*, 17–27. https://doi.org/10.1016/j.cedpsych.2014.05.004

*Fidalgo, R., Torrance, M., Rijlaarsdam, G., van den Bergh, H., & Álvarez, M. L. (2015). Strategy-focused writing instruction: Just observing and reflecting on a model benefits 6th grade students. *Contemporary Educational Psychology, 41*, 37–50. https://doi.org/10.1016/j.cedpsych.2014.11.004

*Gárate, M., Melero, M. A., Tejerina, I., Echevarría, E., & Gutiérrez, R. (2014). Una intervención educativa integrada sobre las habilidades argumentativas escritas en estudiantes de 4° de la E.S.O. [An integrated educational intervention on written argumentative skills in 4th grade students]. *Infancia y Aprendizaje, 30*(4), 589–602. https://doi.org/10.1174/021037007782334346

Gaynor, J. W. (2020). Peer review in the classroom: student perceptions, peer feedback quality and the role of assessment. *Assessment & Evaluation in Higher Education, 45*(5), 758–775. https://doi.org/10.1080/02602938.2019.1697424

Gerde, H. K., Bingham, G. E., & Wasik, B. A. (2012). Writing in early childhood classrooms: Guidance for best practices. *Early Childhood Education Journal, 40*(6), 351–359. https://doi.org/10.1007/s10643-012-0531-z

Gersten, R., & Baker, S. (2001). Teaching Expressive Writing to Students with Learning Disabilities: A Meta-Analysis. *The Elementary School Journal, 101*(3), 251–272. https://doi.org/10.1086/499668

Gersten, R., Fuchs, L., Compton, D., Coyne, M., Greenwood, C., & Innocenti, M. (2005). Quality indicators for group experimental and quasi-experimental research in special education. *Exceptional Children, 71*, 149–164. https://doi.org/10.1177/001440290507100202

Grabowski, J., Becker-Mrotzek, M., Knopp, M., Jost, J., & Weinzierl, C. (2014). Comparing and combining different approaches to the assessment of text quality. In D. Knorr, C. Heine, &

J. Engberg (Eds.), *Methods in writing process research* (pp. 147–165). Peter Lang. https://doi.org/10.3726/978-3-653-02367-1

Graham, S. (2006). Strategy instruction and the teaching of writing. A meta-analysis. In C. A. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research* (pp. 187–207). The Guilford Press.

Graham, S., & Harris, K. R. (2005a). *Writing better*. Brookes.

Graham, S., & Harris, K. R. (2005b). Improving the writing performance of young struggling writers: Theoretical and programmatic research from the center on accelerating student learning. *The Journal of Special Education, 39*(1), 19–33. https://doi.org/10.1177/00224669050390010301

Graham, S., & Harris, K. R. (2014). Conducting high quality writing intervention research: Twelve recommendations. *Journal of Writing Research, 6*(2), 89–123. https://doi.org/10.17239/jowr-2014.06.02.1

Graham, S., & Harris, K. R. (2018). An examination of the design principles underlying a self-regulated strategy development study. *Journal of Writing Research, 10*(2), 139–187. https://doi.org/10.17239/jowr-2018.10.02.02

Graham, S., & Perin, D. (2007). A meta-analysis of writing instruction for adolescent students. *Journal of Educational Psychology, 99*(3), 445–476. https://doi.org/10.1037/0022-0663.99.3.445

Graham, S., & Sandmel, K. (2011). The process writing approach: A meta-analysis. *The Journal of Educational Research, 104*, 396–407. https://doi.org/10.1080/00220671.2010.488703

Graham, S., McKeown, D., Kiuhara, S., & Harris, K. R. (2012). A meta-analysis of writing instruction for students in the elementary grades. *Journal of Educational Psychology, 104*(4), 879–896. https://doi.org/10.1037/a0029185

Graham, S., Harris, K. R., & Santangelo, T. (2015a). Research-Based Writing Practices and the Common Core: Meta-analysis and Meta-synthesis. *The Elementary School Journal, 115*(4), 498–522. https://doi.org/10.1086/681964

Graham, S., Hebert, M., & Harris, K. R. (2015b). Formative Assessment and Writing: A Meta-Analysis. *The Elementary School Journal, 115*(4), 523–547. https://doi.org/10.1086/681947

Greenwald, E. A., Persky, H. R., Campbell, J. R., & Mazzeo, J. (1999). NAEP 1998 Writing Report Card for the Nation and the States. *Eduation Statistics Quarterly, 1*(4), 23–28.

Harris, K., & Graham, S. (1996). *Making the writing process work: Strategies for composition and self-regulation.* Brooklines Books.

Higgins, J. P. T., & Thompson, S. G. (2002). Quantifying heterogeneity in a meta-analysis. *Statistics in Medicine, 21*(11), 1539–1558. https://doi.org/10.1002/sim.1186

Hill, C. J., Bloom, H. S., Black, A. R., & Lipsey, M. W. (2008). Empirical Benchmarks for interpreting Effect Sizes in Research. *Child Development Perspectives, 2*(3), 172–177. https://doi.org/10.1111/j.1750-8606.2008.00061.x

Hillocks, G. (1986). *Research on written composition: New directions for teaching*. National Council of Teachers of English.

Koster, M., Tribushinina, E., de Jong, P. F., & van den Bergh, H. (2015). Teaching Children to Write: A Meta-analysis of Writing Intervention Research. *Journal of Writing Resarch, 7*(2), 299–324. https://doi.org/10.17239/jowr-2015.07.02.2

Law 20.370/2009, August 17, establece la ley general de educación. [establishes the general education law] (2009). *Diario Oficial de la República de Chile, 39461,* 2009, September 12. https://especial.mineduc.cl/wp-content/uploads/sites/31/2018/04/LEY-20370_12-SEP-2009.pdf

Law 26.206/2006, December 14, establece la ley de educación nacional. [establishes the national educational law] (2006). *Boletín Oficial de la República Argentina, 31.062,* 2006, December 28. https://siteal.iiep.unesco.org/sites/default/files/sit_accion_files/siteal_argentina_0829.pdf

Law 30.09/2019 Ley General de Educación, September 30, expide la ley general de educación. [issues the general education law] (2019). *Diario Oficial de la Federación,* 2009, September 30, 46–93. http://www.diputados.gob.mx/LeyesBiblio/ref/lge/LGE_orig_30sep19.pdf

Li, H., Xiong, Y., Hunter, C. V., Guo, X., & Tywoniw, R. (2020). Does peer assessment promote student learning? A meta-analysis. *Assessment & Evaluation in Higher Education, 45*(2), 193–211. https://doi.org/10.1080/02602938.2019.1620679

Lienemann, T. O., Graham, S., Leader-Janssen, B., & Reid, R. (2006). Improving the writing performance of struggling writers in second grade. *Journal of Special Education, 40*(2), 66–78. https://doi.org/10.1177/00224669060400020301

*Limpo, T., & Alves, R. A. (2013). Teaching planning or sentence-combining strategies: Effective SRSD interventions at different levels of written composition. *Contemporary Educational Psychology, 38*, 328–341. https://doi.org/10.1016/j.cedpsych.2013.07.004

*Limpo, T., & Alves, R. A. (2014). Implicit theories of writing and their impact on students' response to a SRSD intervention. *British Journal of Educational Psychology, 84*, 571–590. https://doi.org/10.1111/bjep.12042

Limpo, T., & Alves, R. A. (2018). Tailoring Multicomponent Writing Interventions: Effects of Coupling Self-Regulation and Transcription Training. *Journal of Learning Disabilities, 51*(4), 381–398. https://doi.org/10.1177/0022219417708170

Lipsey, M., & Wilson, D. (2001). *Practical meta-analysis*. Sage.

Little, C. W., Clark, J. C., Tani, N. E., & Connor, C. M. (2018). Improving writing skills through technology-based instruction: A meta-analysis. *Review of Education, 6*(2), 183–201. https://doi.org/10.1002/rev3.3114

*López, P., Torrance, M., Rijlaarsdam, G., & Fidalgo, R. (2017). Effects of direct instruction and strategy modeling on upper-primary students' writing development. *Frontiers in Psychology, 8*, 1054–1063. https://doi.org/10.3389/fpsyg.2017.01054

*Luna, M., Villalón, R., Mateos, M., & Martín, E. (2020). Improving university argumentative writing through an online training. *Journal of Writing Research, 12*(1), 233–262. https://doi.org/10.17239/jowr-2020.12.01.08

*Malpique, A. A. D. S. (2014). *Implementing self-regulated strategy development for teaching argumentative writing: a multidimensional approach* (Doctoral thesis, Doctorate in Educational Psychology). University of Lisbon & University of Coimbra.

Mason, L. H., Harris, K. R., & Graham, S. (2011). Self-regulated strategy development for students with writing difficulties. *Theory into Practice, 50*(1), 20–27. https://doi.org/10.1080/00405841.2011.534922

Medimorec, S., & Risko, E. F. (2017). Pauses in written composition: on the importance of where writers pause. *Reading and Writing, 30*(6), 1267–1285. https://doi.org/10.1007/s11145-017-9723-7

Mlinarić, A., Horvat, M., & Šupak Smolčić, V. (2017). Dealing with the positive publication bias: Why you should really publish your negative results. *Biochemia Medica, 27*(3), 030201. https://doi.org/10.11613/BM.2017.030201

Morphy, P., & Graham, S. (2012). Word processing programs and weaker writers/readers: A meta-analysis of research findings. *Reading and Writing, 25*(3), 641–678. https://doi.org/10.1007/s11145-010-9292-5

NAEP. (2011). *National Assessment of Educational Progress: The nation's report card.* National Center for Education Statistics, Washington, DC. Available online at: http://nces.ed.gov/nationsreportcard/

National Commission on Writing. (2003). *The neglected "R": The need for a writing revolution.* Report of The National Commission on Writing in America's Schools and Colleges. College Board.

Nemirovsky, M. (1999). *Sobre la enseñanza del lenguaje escrito... y temas aledaños* [On the teaching of written language … and surrounding issues]. Paidós.

Newell, G. E., Beach, R., Smith, J., & VanDerHeide, J. (2011). Teaching and Learning Argumentative Reading and Writing: A Review of Research. *Reading Research Quarterly, 46*(3), 273–304. https://doi.org/10.1598/RRQ.46.3.4

Oddsdóttir, R., Ragnarsdóttir, H., & Skúlason, S. (2021). The effect of transcription skills, text generation, and self-regulation on Icelandic children's text writing. *Reading and Writing, 34*(2), 391–416.

Olive, T., Favart, M., Beauvais, C., & Beauvais, L. (2009). Children's cognitive effort and fluency in writing: Effects of genre and of handwriting automatisation. *Learning and Instruction, 19*(4), 299–308. https://doi.org/10.1016/j.learninstruc.2008.05.005

*Ortega de Hocevar, S. (2016a). Nuestros niños argumentan. [Our children argue] *Traslaciones, 3*(6), 47–77.

*Ortega de Hocevar, S. (2016b). Discursos argumentativos infantiles. [children's argumentative discourses] In S. Nothstein, M. C. Pereira, & E. Valente (Eds.), *Lectura y escritura: prácticas, instituciones y actores [Reading and writing: practices, institutions and actors*] (pp. 236–260). EdiUNS.

*Ossa, C., Fernández, S., & Saiz, C. (2016). Estrategias metacognitivas en el desarrollo de análisis argumentativo. [Metacognitive strategies in the development of argumentative analysis] In J. R. Casanova, C. Bisinoto, & L. S. Almeida (Eds.), *IV Seminário Internatcional Cogniçao, Aprendizagem e Desempenho, Livro de Atas*. CIEd.

Oxman, A. D., & Guyatt, G. H. (1992). A consumer's guide to subgroup analyses. *Annals of Internal Medicine, 116*, 78–84. https://doi.org/10.7326/0003-4819-116-1-78

Oyserman, D., & Lee, S. W. S. (2008). Does culture influence what and how we think? Effects of priming individualism and collectivism. *Psychological Bulletin, 134*(2), 311–342. https://doi.org/10.1037/0033-2909.134.2.311

Persky, H. R., Daane, M. C., & Jin, Y. (2003). *The nation's report card: Writing 2002* (NCES 2003-529). U.S. Department of Education. Institute of Education Sciences. National Center for Education Statistics. Government Printing Office.

*Prata, M. J., de Sousa, B., Festas, I., & Oliveira, A. L. (2018). Cooperative methods and self-regulated strategies development for argumentative writing. *The Journal of Educational Research, 112*(1), 12–27. https://doi.org/10.1080/00220671.2018.1427037

Preiss, D. D., Castillo, J. C., Flotts, P., & San Martín, E. (2013). Assessment of argumentative writing and critical thinking in higher education: Educational correlates and gender differences. *Learning and Individual Differences, 28*, 193–203. https://doi.org/10.1016/j.lindif.2013.06.004

Ravid, D. (2005). Emergence of linguistic complexity in later language development: Evidence from expository text construction. In D. Ravid & H. B.-Z. Shyldkrot (Eds.), *Perspectives on language and language development* (pp. 337–355). Springer US. https://doi.org/10.1007/1-4020-7911-7_25

Rogers, L. A., & Graham, S. (2008). A meta-analysis of single subject design writing intervention research. *Journal of Educational Psychology, 100*(4), 879–906. https://doi.org/10.1037/0022-0663.100.4.879

Royal Decree 1105/2014, December 26, por el que se establece el currículo básico de la Educación Secundaria Obligatoria y del Bachillerato. [by which the basic curriculum of Compulsory Secondary Education and Baccalaureate is established] (2015). *Boletín Oficial del Estado, 3, Sec. I.,* 2015, January 3, 19349–19420. https://www.boe.es/boe/dias/2015/01/03/pdfs/BOE-A-2015-37.pdf

Royal Decree 126/2014, February 28, de ordenación de las enseñanzas de la educación primaria. [organization of the teachings of primary education] (2014). *Boletín Oficial del Estado, 52, Sec. I.,* 2014, March 1, 19349–19420. https://www.boe.es/buscar/pdf/2014/BOE-A-2014-2222-consolidado.pdf

*Salas, N., Birello, M., & Ribas, T. (2021). Effectiveness of an SRSD writing intervention for low- and high-SES children. *Reading and Writing*. https://doi.org/10.1007/s11145-020-10103-8

Sánchez Abchi, V., Dolz, J., & Borzone, A. M. (2012). Escribir textos argumentativos desde el inicio de la escolaridad. Un análisis de textos producidos a partir de una secuencia didáctica. [Write argumentative texts from the beginning of schooling. An analysis of texts produced from a didactic sequence] *Trabalhos em Lingüística Aplicada, 51(2), 409–432.* https://doi.org/10.1590/S0103-18132012000200008

Sedgwick, P. (2013). Meta-analyses: heterogeneity and subgroup analysis. *BMJ, 346*, f4040. https://doi.org/10.1136/bmj.f4040

Serrano-Aguilera, J. J., Tocino, A., Fortes, S., Martín, C., Mercadé-Melé, P., Moreno-Sáez, R., Muñoz, A., Palomo-Hierro, S., & Torres, A. (2021). Using peer review for student performance enhancement: Experiences in a multidisciplinary higher education setting. *Education Sciences, 11*(2), 71. https://doi.org/10.3390/educsci11020071

Share, D. L. (2008). On the anglocentricities of current reading research and practice: The perils of overreliance on an "outlier" orthography. *Psychological Bulletin, 134*(4), 584–615. https://doi.org/10.1037/0033-2909.134.4.584

*Suárez, A. (2006). Un programa de composición de textos argumentativos para psicopedagogas. [An argumentative text composition program for educational psychologists] *Revista de Investigación Educativa, 24*(1), 51–70.

Suurmond, R., van Rhee, H., & Hak, T. (2017). Introduction, comparison and validation of meta-essentials: A free and simple tool for meta-analysis. *Research Synthesis Methods, 8*(4), 537–553. https://doi.org/10.1002/jrsm.1260

Thompson, S. G., & Higgins, J. P. T. (2002). How should meta-regression analyses be undertaken and interpreted? *Statistics in Medicine, 21*, 1559–1573. https://doi.org/10.1002/sim.1187

*Torrance, M., Fidalgo, R., & Robledo, P. (2015). Do sixth-grade writers need process strategies? *British Journal of Educational Psychology, 85*(1), 91–112. https://doi.org/10.1111/bjep.12065

Tukey, J. (1977). *Exploratory data analysis*. Addison-Wesley. https://doi.org/10.1002/bimj.4710230408

Van Eemeren, F. H., & Grootendorst, R. (2004). *A systematic theory of argumentation: The pragma-dialectical approach*. Cambridge University Press.

Van Esch, K., de Haan, P., Frissen, L., González, I., & de la Miranda, Á. T. (2006). Evolución en la competencia escrita de estudiantes de español como lengua extranjera [Development in the written competence of students of Spanish as a foreign language]. *Estudios de lingüística aplicada, 24*(23), 55–76.

Viechtbauer, W. (2007). Accounting for heterogeneity via random-effects models and moderator analyses in meta-analysis. *Journal of Psychology, 215*(2), 104–121. https://doi.org/10.1027/0044-3409.215.2.104

Vilar, H. (2021). *The rhetorical structure of analytical writing: a macro and microdevelopmental approach* (Doctoral thesis, Doctorate in Education). University of Barcelona.

Wilson, D. B. (2006). *Meta-analysis macros for SAS, SPSS, and Stata* [Computer software]. https://mason.gmu.edu/~dwilsonb/ma.html

Chapter 16
The Chilean National Writing Plan: Rationale, Actions, and Preliminary Results

Soledad Concha and María Jesús Espinosa

16.1 Introduction

16.1.1 Why Begin a Writing Education Policy with a Pedagogy for Motivation?

For the past decade, Chilean writing education policy has mainly focused on curriculum and assessment, while pedagogical efforts have been scarce. Simultaneously, the available evidence consistently suggests problems with writing performance among students in the school and university levels, which persist despite the implemented policy (Benítez & Sotelo, 2013; Concha et al., 2015; Errázuriz et al., 2015; Errázuriz, 2019; Figueroa et al., 2019; Gelber et al., 2021; Sotomayor et al., 2013, 2016). Pedagogical policy in the country has been limited to two actions. First, writing education contents and exercises are contained in the Spanish language education textbooks distributed by the Ministry of Education; however, writing is only one of the aspects included, together with reading comprehension, oral communication, language conventions, and literature. Second, a few examples of writing performance and general suggestions for writing education are provided by Agencia de Calidad de la Educación, the institution in charge of the national assessment of education.

Regarding curricular policy, the current national language education curriculum, updated in 2012, is consistent with international best practices in writing education,

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with a clear focus on the process approach, motivation, and metalinguistic awareness (Espinosa & Concha, 2015). From first to tenth grade, the writing section of the curriculum is organized in three areas: guided writing, free writing, and knowledge of language. Guided writing learning objectives promote the development of abilities and knowledge related to the process of writing and to different written genres; free writing objectives promote motivation and enjoyment for writing; and knowledge of language objectives focuses on the spelling and grammar necessary for written communication (Ministerio de Educación [MINEDUC], 2012, 2015). Since the 1990's reform, the national language curriculum in Chile has subscribed to the communicative approach, common to most Hispanic countries, which aims at preparing students for proficient communication in diverse contexts in society. This approach represents a major shift from the traditional focus on language structure and knowledge transmission that oriented the language curriculum previously (Flores-Ferrés et al., 2020).

With regard to assessment policy, SIMCE, the Chilean system of national educational assessment, introduced a sample-based writing assessment for fourth grade students in 2008. The test included three different genres – short story, letter, and news; thus, students had to produce writing with the purposes of narrating, expressing a request, and informing about a recent event. Results classified 38% of students in the initial level of performance, which entailed poor domain of coherence, cohesion, textual organization, and writing conventions, as well as trouble adapting to the communicative situation, for both informative and narrative texts (MINEDUC, 2008). In 2013, SIMCE moved forward to a census-based writing assessment for sixth graders. For this new test, students had to write two texts (narrative, informative or argumentative) and answered 15 closed questions. Results revealed that performance was better when it required narrating while informational and argumentative texts were weaker in idea development, cohesion, adaptation to the communicative situation, and writing conventions. Similar results have been reported after the application of this test in subsequent years (Briones & León, 2018), despite the enforcement of the updated language education curriculum in 2012. More importantly, results consistently reveal that performance level is related to socioeconomic status (Agencia de la Calidad de la Educación, 2015; Meckes & Carrasco, 2010 in Flores-Ferrés et al., 2020), which suggests that policy has been unable to improve equality in the school system.

A growing body of research in the context of the Chilean educational system confirms problems with writing performance among students. Research has highlighted difficulties at the school level (Benítez, 2009; Benítez & Sotelo, 2013; Concha et al., 2010; Figueroa et al., 2019; Gelber et al., 2021; Sotomayor et al., 2013, 2016) as well as the university level (Arechabala et al., 2011; Concha et al., 2015; Errázuriz, 2019; Errázuriz et al., 2015; Sabaj, 2009; Tapia et al., 2003). Taken together, research evidences suggest Chilean students produce writing that hinders comprehension because of a combination of problems (Gelber et al., 2021;

Sotomayor et al., 2016; Sabaj, 2009), especially with connectives (Concha et al., 2010), spelling (Sotomayor et al., 2013), sentence construction (Arechabala et al., 2011), elaboration of ideas (Figueroa et al., 2019), processing of written sources (Errázuriz, 2019; Errázuriz et al., 2015; Tapia et al., 2003), and organization (Benítez, 2009; Benítez & Sotelo, 2013; Concha et al., 2015).

16.1.2 How Can Writing Performance Results Be Explained?

Considering the national curricular and assessment efforts that have been in place for the past decade, one should look for curricular implementation in order to understand why the policy has not been able to improve performance so far. In connection with this, there is one survey study available that explored writing education practices reported by 7th to 12th grade Chilean Spanish teachers from across the country (Flores-Ferrés et al., 2020). Notably, results revealed that practices associated with a communicative approach to writing were most infrequent, such as "...sending written texts to real addresses, writing in the context of authentic projects, and providing feedback from the reader's perspective" (p. 28). According to the authors, assuming a communicative approach to writing involves "providing learners with tasks situated within real and meaningful contexts" (p. 10); thus, one should wonder whether actual teaching practices tend to go in the opposite direction, with artificial or irrelevant writing tasks. Unfortunately, very few observational studies have explored what writing education practices in Chilean classrooms actually look like. Such knowledge would be most valuable for explaining the available performance results. Some evidence indicates that writing activities are not challenging enough (Galdames et al., 2010) and that practices focus mainly on the teaching of structures as a rigid textual feature, to the detriment of the idea that texts are adaptable according to communicative purposes (Espinosa, 2018). Another study reported that writing education practices tend to focus on the mechanics of writing and leave personal writing out of the classroom (Gómez et al., 2016).

Though scarce, these studies suggest that writing education practices in Chilean classrooms tend to be inauthentic and unmotivating, which can be connected with evidence collected by the authors regarding students' writing motivation. In effect, Concha et al. (2022) identified and compared attitudes and self-efficacy beliefs toward writing in Chilean students from 3rd to 11th grades. Results indicate that both measures of writing motivation are higher in the lower grades and, comparatively, tend to decrease with age and grade level, especially in fifth and ninth grades. To the best of our knowledge, there is no empirical evidence available to establish a relation between performance and motivation for writing among Chilean students or between teaching practices and students' motivation to write; however, international evidence enables us to hypothesize such relations.

16.1.3 What Is the Relation Between Writing Motivation and Writing Performance?

International studies have established that students who have a positive attitude and strong self-efficacy beliefs about themselves as writers devote more attention and effort to writing, thus positively affecting performance (Graham et al., 2007, 2017). It seems clear that learning to write does not only involve abilities, strategies, and knowledge of writing but also the motivation to do so (Graham & Harris, 2019). In fact, good writers have better motivation than their weaker peers (Graham et al., 2017). Evidence is not conclusive regarding writing motivation across grade levels (García Guzmán & Mata, 2006), but the majority of studies report a tendency to decrease with age (De Caso-Fuertes & García Sánchez, 2006; Lipstein & Renninger, 2007; Martínez-Cocó et al., 2009; Mata, 2011; Pajares et al., 2006), which mirrors Concha et al. s' findings in Chile (Concha et al., 2022). An exception is the work of Cueto et al. (2003) with Peruvian students who maintained and even improved writing motivation in the higher grade levels.

16.1.4 What Causes Writing Motivation to Decrease Across Grade Levels?

Different reasons can be found in research. First, the increasing complexity of school writing negatively affects writing motivation. Apparently, the more aware students are of the substantive processes of writing (organization of information, articulation of a coherent meaning, attention to audience, etc.), the less motivated they are to write (De Caso-Fuertes & García Sánchez, 2006). Second, measures of writing motivation such as beliefs about performance can be influenced by past experiences, among other factors of socialization (Wigfield & Eccles, 2000). Similarly, attitudes toward writing can be influenced by the value that writing has in students' homes (Graham et al., 2007) and by the support they receive in school while learning to write. A third relevant factor behind demotivation for writing is the restrictive repertoire of genres that students can produce in the school context, which tend to be mainly academic in the higher grade levels (Boscolo & Hidi, 2006). Finally, evidence indicates that chaotic, unfriendly, or punitive environments can negatively affect motivation to write (Graham & Harris, 2019), by hindering students' desire to experiment and take risks with writing.

16.1.5 What Is the Role of Teachers in Students' Writing Motivation and What Do We Know About Chilean Teachers' Conceptions and Performance in Writing?

Lack of motivation to write among students is gradually developed in specific contexts and in reaction to personal and vicarious experiences of failure and difficulty, such as low grades, negative comments, the feeling of not being able to reach the expected standards, the comparison with peers, or anxiety in the face of academic work. Hence, the role of writing teachers is key in this development, not only what they say and what they do, or how they say it and do it, but also what they believe about writing and about writing education, that is, teachers' beliefs, attitudes, and knowledge about writing and about themselves as writers.

In this regard, two international literature reviews report a tendency to normative and restrictive conceptions about writing among teachers, feelings of not being competent writers and teachers of writing, and reports of not enjoying writing and using it only for functional purposes and not for leisure (Cremin & Oliver, 2017; Morgan & Pytash, 2014). Noteworthy, in the Chilean context, a recent study by Errázuriz (2020) concludes that preservice teachers as well as teacher educators from two regions in the country hold a mixture of transmissional and transactional implicit theories about writing, which could be at the basis of writing practices at the school and university levels. Transmissional theories include that writing's main purpose is to inform about knowledge already produced by experts, and thus the formal aspects should be the priority during the process of writing, instead of reflection, learning, and stating a point of view (Miras et al., 2013). Transactional theories, on the other hand, conceive writing as a process of personally and critically constructing the text, actively integrating the writers' own thinking in the process (Miras et al., 2013).

Errázuriz (2019) offers evidence of problems with writing performance among preservice teachers from two regions in the south of Chile. First year teacher students produced academic essays with insufficient domain of spelling, counter arguments, and intertextuality, as well as unsatisfactory cohesion, vocabulary, argumentation, idea organization, and global structure. Furthermore, these results did not improve with time but remained stable until students' fourth year in the program. In relation to this, a 2011 study that explored 20 teacher education programs in the country found that basic writing courses are frequently included in the different universities (Sotomayor et al., 2011). Also, an existing law (20.903) demands from teacher education programs the inclusion of writing diagnostic tests and courses for first year students. The question arises about the quality of these remedial programs and their potential to positively impact preservice teachers' writing performance. Additionally, and in light of these results, it is possible to infer that the low motivation to teach writing reported by some teachers in Espinosa's (2018) work may be related, among other things, to teachers' difficulties with writing performance and/or to their negative experiences with writing in the university. Moreover, one wonders how these teachers can foster motivation for writing in their

classrooms, if they themselves have difficulties with writing and express demotivation to teach writing.

16.1.6 How Can Writing Motivation Be Fostered in the Classroom?

Writing motivation can be fostered with a proper pedagogy that has been thoroughly described in studies and best practices literature. In essence, this pedagogy is characterized by frequent opportunities to write about topics that are interesting for students and for which they have prior knowledge; free choice of topics and formats is allowed, and teachers provide precise and positive feedback together with ensuring a positive emotional environment (Graham & Harris, 2019). Central to the promotion of writing motivation is the notion of a community of writers, which has been described as a welcoming environment in which students can exercise writing that is related to their beliefs, interests, knowledge, and habits, as well as their culture, their history, their society, and their families and the institutions they participate in (Graham & Harris, 2019). Because this community offers a positive emotional environment in which writing is frequent, students feel free to take risks and to share their writing, to reflect about writing, and to receive feedback that nurtures motivation and opportunities to learn (Pritchard & Honeycutt, 2007). Most importantly, positive messages about one's own writing have been found to promote a feeling of competence that motivates further learning to write (Bandura, 1993; Hidi et al., 2002).

The updated language education curriculum in Chile introduced the notion of free writing which holds clear similarities with international best practices of writing motivation in its declared purposes but does not provide details for implementation. As explained in the curricular documents, free writing entails an individual and a social dimension. On the one hand, it promotes individual experimentation with formats, structures, and styles that can embody students' communicative purposes and promote the development of a personal style as well as writing motivation. On the other hand, free writing is supposed to become a tool for social participation within a community (MINEDUC, 2012).

The notion of free writing was initially not related to the promotion of motivation but as a technique to trigger idea generation and creativity (Hillocks, 1986), in line with the more individual nuance of the curricular proposal. However, consistent with a situated vision of writing (Barton & Hamilton, 2004), free writing can be combined with the principles of community of writing and so have a positive influence on motivation. Thus, a free writing teaching methodology should involve frequent writing, as well as opportunities for discussion, collaborative writing, and voluntary sharing of texts, together with free choice and positive feedback (Englert et al., 2006; Graham & Perin, 2007).

Because a writing motivation pedagogy takes place in a classroom, it is particularly important to consider evidence that suggests that interest in writing not only depends on individual characteristics but also on environmental factors (Hidi et al., 2002). In fact, individual interest in writing can develop if, within the community, writing is valuable and is important for social interaction (Hidi, 2006; Hidi & Boscolo, 2006; Hidi & Renninger, 2006; Lipstein & Renninger, 2007). A similar proposal can be found in the work of Morgan and Pytash (2014) and Cremin and Oliver (2017). In their international literature reviews, both studies include evidence in which beliefs and negative predispositions about writing among teachers had been transformed because they had the opportunity to participate in writing workshops. Such collective experiences with writing gave the teachers opportunities for writing for different purposes – social and personal – to become aware of the difficulties implied in the process of learning to write but also to enjoy participating from a community of writers and to develop a positive identity and positive self-efficacy beliefs as writers.

16.2 The Hypotheses

The evidence reviewed in this section allows for the proposition of five working hypotheses that can, in turn, support policy actions as follows:

(a) Given the evidence-based relation between writing performance and motivation for writing, and the evidence available of low motivation for writing and problems with performance among Chilean students, one could infer that improving students' motivation for writing could affect their attention as well as their predisposition toward writing and writing learning and, in time, their writing performance.
(b) Given the evidence-based relation between writing performance and writing motivation among school students, one could infer that Chilean preservice teachers, who have demonstrated problems with writing performance, could also hold low interests and beliefs about themselves as writers.
(c) Given that international evidence has documented frequent normative and restrictive conceptions about writing among teachers, together with low motivation for writing, and feelings of not being competent teachers of writing, one could infer that Chilean teachers, who have already demonstrated problems with writing performance as well as transmissional conceptions about writing, could also feel incompetent teachers of writing thus affecting their motivation to teach.
(d) Given the evidence available about the positive effects that participating from a community of writers can have on students and teachers, one could infer that a writing motivation pedagogical policy that targets both teachers and students could have an impact on students' motivation and writing performance as well as in teachers' motivation to write and to teach writing.

(e) Given that curriculum and assessment writing education policy efforts have not improved writing performance among Chilean students in the last decade, and that best practices of writing motivation pedagogy have been clearly established in the literature, one could infer that a pedagogical policy could have a better impact on students' writing motivation and, in turn, affect their performance.

16.2.1 The Chilean National Writing Plan: A Recollection of the Actions Implemented Between 2019 and 2021

Developing Students' Motivation to Write

Based on the above background, the first steps of the National Writing Plan (NWP) were focused on promoting motivation to write among school students and among their teachers. For this purpose, in 2019, a pilot study was conducted in four schools – one public and three semipublic – in the Metropolitan Region. Students from these schools received paper journals with 70 free writing prompts, including over 20 genres (e.g., lists, reflections, letters, stories, self-portraits, posters, comics), and diverse writing purposes (e.g., give opinions, remember, create, reflect, share, play with language). For this pilot version, four free writing journals were created that grouped school levels (J1 for 1st and 2nd grades, J2 for 3rd–6th grades, J3 for 7th and 8th grades, and J4 for 9th–12th grades).

In addition, each language teacher received a brief document with general guidelines for implementing the journals. Both materials – the journals and the general guidelines – are based on the notion of free writing included in the national curriculum, which promotes motivation to write (MINEDUC, 2012). The guidelines given to the teachers sought to ensure a positive environment so that students were willing to take risks in writing, without fear of being graded. These recommendations consider, in line with best practices literature, writing frequently, offering instances of discussion, favoring collaborative writing, voluntarily sharing texts, allowing free choice, and giving positive feedback (Englert et al., 2006; Graham & Perin, 2007; Pajares et al., 2006). According to the notion of a community of writers (Graham, 2018), the journals' writing activities sought to promote written discursive practices that could be consistent with the students' interests, knowledge, and habits and relevant according to the influences they receive from their culture, society, family, institutions, and history (Graham & Harris, 2019).

Two important reasons support the choice of providing the teachers with general guidelines for implementation, instead of a detailed script for action. In fact, the guidelines' document explicitly states that each teacher should adapt this general proposal to their own context and their own communities. On the one hand, this decision is based on the conviction that each community of writers is different and interacts with writing according to their own interests, beliefs, knowledge, habits, etc. (Graham & Harris, 2019). On the other hand, as a policy, the NWP is based on the notion of the reflexive teacher and on the conviction that teachers, as

professionals, can articulate knowledge from different domains to flexibly adapt teaching contents and methodologies to their specific reality (Darling-Hammond & Bransford, 2005; Schön, 1987; Shulman, 1987).

Following the promising results of the pilot study, described in the next section, the plan was extended to public schools throughout the country. By 2020, the paper journals were delivered to more than 1400 public schools, one for each student. In 2021, free writing journals were developed for each grade level, with the collaboration of children's literature writers and teachers from schools located in Chile's sixth region. These new journals were delivered along with an updated version of the general guidelines, to be implemented in 2021 to all 1449 public schools voluntarily enrolled in the NWP.

Developing Teachers' Motivation to Write

A second action of the NWP, aimed at promoting teachers' motivation to write, was the implementation of free writing workshops for teachers. A pilot experience was organized in 2021. It consisted of four online workshops, led by renowned writers. Each of these workshops had a particular focus consistent with the expertise of the workshop leader. Schools participating in the NWP received an invitation to apply to one of these workshops (one teacher per school). Ten teachers, from different regions of the country, were selected for each workshop on a first-come-first-served basis (40 teachers in total). The workshops were free of charge for teachers. A letter of commitment was requested to each applicant, in order to ensure their attendance at the entire workshop. To warrant that the workshops would contribute to the objective of promoting motivation for writing among teachers and that they would be linked to the approach of the NWP, the researchers met with the writers and established minimum operating agreements. It was agreed to hold 42-hour online sessions per workshop outside school hours. The number of ten participants per workshop sought to ensure that there would be adequate time to encourage personal production and create a sense of community among the members. The workshops followed the notion of a community of writers; thus, they sought to create a safe space for risk-taking and experimentation. During the four sessions, which took place in May 2021, the researchers maintained permanent contact with the workshop leaders to detect possible difficulties and to collect good ideas that could be replicated in the future.

16.2.2 Preliminary Results of the Chilean National Writing Plan

Impact of the National Writing Plan on Students' Motivation to Write

In 2019, a quasi-experimental pilot study was conducted with four schools in the Metropolitan Region to measure the impact of implementing the writing journals and the guidelines to promote a community of writers on two key constructs of writing motivation: attitudes toward writing and self-efficacy beliefs about writing. For

this study, the two-scale instrument of Graham et al. (2017) was adapted and applied in two moments of 2019 to an intended sample of 1869 students from 1st to 11th grades: 1049 in the treatment group and 820 in the control group. The methodology, validation of the instrument, and data analysis processes are detailed in an article by the authors, currently under review. Results show that students across grades significantly improved their attitudes and self-efficacy beliefs about writing, although the size effect for 1st and 2nd grades was medium, and for 3rd to 11th grades, it was small (Concha et al., under review).

What the Students Say About Their Free Writing Within a Community Experience

In addition to the impact study, the researchers conducted a qualitative study to investigate the experience of the students who participated in the pilot intervention. For this purpose, semi-structured interviews were conducted with 15 students from 2 schools. The analysis of the interviews is detailed in another paper by the authors (Concha & Espinosa, 2022). The most significant findings are summarized below.

First, all participants agree in positively valuing the experience. This appreciation is based on the possibility of writing about personal topics in school, having an opportunity to express their feelings, to reflect, and to relieve themselves from the burden of their worries and heartaches. According to the students, these possibilities offered by the writing journals and the community of writers positively influenced their motivation to write: "it was surprising to see some of us that maybe you say "no, how is he going to write something"... but he got completely into the journal and wrote" (tenth grade student). All the students interviewed, in all grades, agreed that the writing journals opened a possibility to reflect and write about their lives, their sorrows, and their concerns. They also felt that, until before the intervention, there was no room in school to share these thoughts. These results suggest a possibility of linking school learning with students' personal life and with topics that go beyond the strictly curricular. In other words, what this study suggests is that this connection motivates students and, therefore, it has the potential to enhance learning.

Second, the students pointed out that one of the most valued aspects of the journals is that they provide true instances of freedom and choice. This freedom is expressed as the possibility of choosing the writing prompts autonomously and according to one's own tastes and interests, and as a space for the emergence of identity, or one's own voice: an authentic communicative style and tone that does not usually have a space in school. In the reports of some students, traditional written communication at school is depicted as a phony activity, far from students' identities, a tradition that does not concern them. Other comments suggest that traditional school writing activities constrain diversity and result in a norm that standardizes people. Indeed, many students interviewed characterized school as a place where they could not make their own choices: "journals made many people feel free, to write what they wanted, to choose what they wanted, which is not the same as being in school" (11th grade student).

Third, students' responses provided details on how the communities of writers looked like in their classrooms. Interestingly, the communities were flexible, and

Table 16.1 Implementation questionnaires

		School A (*N* = 4)	School B (*N* = 7)	School C (*N* = 7)
How many students shared their writing with the whole group?	All of them	25% (1)	–	14% (1)
	More than half	25% (1)	43% (3)	–
	Less than half	50% (2)	57% (4)	29% (2)
	Very few	–	–	57% (4)
How many students shared their writing in small groups?	All of them	25% (1)	100% (7)	28.5% (2)
	More than half	25% (1)	–	28.5% (2)
	Less than half	25% (1)	–	14.5% (1)
	Very few	25% (1)	–	28.5% (2)
Who did most of the talking when sharing writing?	The teacher	25% (1)	–	14% (1)
	Equal proportion	–	86% (6)	29% (2)
	Students	75% (3)	14% (1)	43% (3)
	No response	–	–	14% (1)

different actions took place around free writing, consistent with the choice of providing teachers with general guidelines instead of steps for implementation. For example, the students reported that the writing journals favored dialogue within the classroom. In this regard, the participants pointed out that, at the moment of writing, it was frequent to talk with their peers about the exercises: "Sometimes we talk a little to give each other ideas" (third grade student). Among the explanations given by the students, there were comments about how within these communities it was possible to write individually but also collaboratively in small groups. When writing, students could do so autonomously and in silence or receive support from the teacher if required. The students also mentioned that the teachers gave positive feedback on their work, in some cases in written form and sometimes orally, which contributed to their motivation to write.

What the Teachers Say About the Free Writing Within a Community Implementation Process

During the 2019 pilot study, 18 of the participating teachers answered an online questionnaire, and 5 of them were interviewed to explore details of their implementation of the free writing journals. Regarding the questionnaire, frequency analyses were carried out to explore how writing was shared in the different classrooms, as shown in Table 16.1.

In relation to the interviews, both authors conducted content analysis by coding the transcribed interviews into three main categories: free writing modality, sharing writing, and giving feedback (see Table 16.2). Direct quotes are included to illustrate results.

Table 16.2 Interview results

	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Teacher 5
Categories					
Free writing modality	A fixed weekly routine to write in the free writing journals. Routine starts with a conversation about the topics and then proceeds to free writing.	The modality was decided by the whole class. Students wrote and discussed ideas for writing with their peers.	Free writing occurred in reflection time, not in the language class. Mandatory collaborative writing. Mandatory peer-to-peer feedback.	Students can choose the writing prompt according to their interests.	A fixed weekly routine to write in the journals. Spontaneous creation of writing groups.
Teacher 2: "How do we do it, kids, do we all have to go at the same pace, can we skip pages, could each of us decide?" And we came to the conclusion that that was the best way. (eighth grade)					
Sharing writing	Mandatory sharing time within small groups. Students shared ideas for writing.	Voluntary sharing. Not a fixed sharing time, but spontaneous sharing. Some noise in the classroom is admitted.	Students can choose to write alone or who to share their writing with.	Spontaneous creation of writing and sharing groups. Students shared opinions about writing topics and ideas for writing.	Students were ashamed to share their writing. Some shared their texts with their closest friends and very few did so with the teacher.
Teacher 3: The children realized, as they worked on their journal, that there were questions that were a little more private. For example, the more advanced children were able to tell me: "miss, these questions are too personal." So, they did not want to work in a group, and they would leave [and work on their own]. But, what was attractive about this? That the children were able to choose who they wanted to sit with and who they were going to share their experiences with. (second grade) *Teacher 5*: In writing, there is a part that is trust, so the students have to go through certain stages to be able to share in front of the whole class. (ninth and tenth grades)					

(continued)

In general, results from both sources suggest that teachers embraced the invitation to flexibly adapt the plan's guidelines to their contexts, since the descriptions of implementation were diverse between teachers. In fact, according to their reports, in some communities, students wrote alone, and in others, they also had the possibility to write within small groups. Similarly, teacher's guidance varied in intensity and quality between classes and so did the possibility of choosing the writing prompts. Some classrooms were more silent, while in others, teachers allowed for spontaneous dialogues around the writing topics. Sharing writing was also different in intensity and modality between communities, with classrooms where no whole group

Table 16.2 (continued)

	Teacher 1	Teacher 2	Teacher 3	Teacher 4	Teacher 5
Giving feedback	Teacher gave individual feedback to those who asked for advice. Teacher gave positive feedback to build motivation. Teacher provided ideas to continue writing.	Teacher gave oral feedback to dig deeper into the writing topics.	Teacher gave feedback to motivate writing. Teacher gave feedback to help students realize what they wanted to express in writing.	Teacher gave feedback to motivate and liberate students from writers' block. Teacher mentioned sources students could use to improve vocabulary and spelling. Teacher gave and discussed the topic of the writing prompts with the students.	Teacher gave oral feedback to those students who let her read their writing. Teacher gave a check mark to those students who wrote but did not share their writing with her.

Teacher 1: We did not do proofreading, we did not do editing, and the feedback was more like an advice. (third and fourth grade)
Teacher 2: I personally came to the conclusion that it was much better to give the feedback orally, to sit down with the students and tell them how much I liked their texts or simply ask them if they liked them. (eighth grade)
Teacher 4: When the students asked questions about vocabulary or about spelling, I tried to get them to use the cell phone or the dictionaries that we had in the classroom, so that they could learn to be independent in solving their doubts, because teachers will not always be with them, so [this way] they can learn that they have other sources for advice. (ninth and tenth grades)

sharing took place and others in which students were slowly encouraged to share the texts with the whole group.

The pilot implementation of the plan extended for only 4 months and was interrupted by the social outbreak that took place in Chile in October 2019. Despite these adverse contextual conditions, the results of the study were very promising, which is why the Ministry of Education decided to extend the coverage of the NWP to all the public schools that would like to enroll voluntarily. Between the months of October and December 2020, the Ministry of Education distributed new writing journals (12 different journals this time, 1 for each grade level) to the 1449 establishments enrolled in the NWP. Schools could begin using the journals as of March 2021.

One month after the beginning of the school year, between April 12, and 23, 2021, schools were asked to respond to an online survey on the use of the journals during this first month of classes. Two hundred seventy-six teachers from 178 schools across the country responded the survey, representing 12.3% of the total number of participating schools. The purpose of the survey was to determine the

frequency, mode of use, and perceived effects derived from the implementation of the writing journals, as reported by the teachers.

Regarding frequency, 47% (*n* = 118) of the surveyed teachers stated that they were using the journals daily or more than once a week. Twenty percent (*n* = 56) stated that they used them between one and three times a month. Twenty-six percent (*n* = 72) reported not using them at all. These results indicate that most of the surveyed teachers were using the journals frequently in their classes during the first month of implementation.

Regarding the mode of use, among the 204 respondents, 64% (*n* = 174) of the teachers reported that they used the writing journals during classes, either face to face or in live virtual classes. This result reflects that most of the surveyed teachers embraced the recommendation of providing time during school hours to write freely in the journals and to share writing, in order to form a community of writers in the classroom. In other words, teachers were not merely sending the journals for homework or leaving the students alone to write.

When asked about the selection of writing exercises, 62% (*n* = 127) of the respondents indicated that it was the teacher who chose the exercise most of the time, 26% (*n* = 53) indicated that the choice was shared between teachers and students, while only 12% (*n* = 24) indicated that the students alone could choose the writing prompts. One possible interpretation of this result – which contrasts with the results of the pilot study – is that the hybrid or virtual modality of classes forced by the pandemic influenced the teachers' decisions about who could choose the writing exercises for each class. However, given that free choice was one of the main recommendations offered to guide the implementation of the journals, and given its importance to promote motivation, it is necessary to further investigate this decision and its influence on the development of motivation to write.

The survey also included a question to inquire about the organization of the communities during writing. In this regard, the teachers' responses (*n* = 204) revealed that there is diversity between communities. Forty-three percent (*n* = 88) reported working primarily with the whole group, 28% (*n* = 57) opted mainly for individual work, and 9% (*n* = 18) favored small group work, while 20% (*n* = 41) chose to assign the writing activities as individual asynchronous work. These results indicate that teachers opted for a variety of ways to use the journals, which is consistent with the flexibility suggested in the implementation general guidelines. Likewise, these findings are consistent with those derived from the 2019 pilot study which revealed that teachers welcomed the invitation from the implementation guidelines to use the journals in a flexible manner and to make adaptations that would allow them to adequately address the characteristics of their own contexts.

Finally, in the 2021 survey, teachers were asked about the curricular relevance of the writing journals, the degree of interest students had in writing the proposed exercises, and whether the journals fulfilled the purpose of motivating students to write. In response to these three questions, 97% of the respondents answered with a high degree of agreement, which confirms the perceived relevance that this pedagogical policy has for teachers in relation to their contexts. Additionally, these

results reveal that teachers agree that the pedagogical actions proposed can actually achieve the purpose of promoting writing motivation among their students.

Writing Workshops and Teachers' Motivation to Write

At the end of the fourth session of the writing workshops, teachers were asked to answer a satisfaction survey with open and closed questions. This survey was answered by 22 of the 44 participating teachers. Frequency analysis of the closed-ended responses and content analysis of the open-ended responses were conducted to explore how these workshops influenced teachers' motivation to write and their perception of the NWP.

First, results show that teachers highly valued the workshops. In fact, several of them agreed in referring to them as "an enriching experience." They also emphasized the role of this experience in fostering their own motivation to write and described the workshops as an opportunity for learning writing techniques as well as writing education strategies. They highlighted experiences within the workshops in which they had the opportunity to receive feedback on their writing process, which strengthened their perception of self-efficacy as writers. Teachers also recognized that in the workshops they found strategies that they could transfer to their own writing classes. In fact, there was a unanimous opinion of the positive influence that this experience will have on their future classes, mainly in their ability to promote motivation for writing among their own students: "[this experience] will influence [my students] in a positive way, since I will be able to put into practice all those activities that were provided to me and that I will also work on [my own classroom]."

Second, teachers recognized the potential that these workshops had to create collaborative networks with other teachers, although they did not provide details as to how this could be put into practice. In this regard, one teacher pointed out that the small group favored the creation of bonds with colleagues. In fact, most respondents (81%) indicated that they would keep in touch with at least two of their workshop colleagues. Only two teachers (9%) acknowledged that they would not stay in touch with any of them, while one said she did not know. These results are particularly important because collaborative networks could have the potential to extend the influence of the workshops, perhaps in self-generated student or teacher writing activities.

In summary, the findings derived from the satisfaction survey show that teachers valued this experience very positively, acknowledged having improved their motivation to write and having learned various teaching and motivation-building strategies for writing that they felt they could replicate in their own classes. Noteworthy, for future workshops, it is important to recall that teachers observed that the small size of the groups favored the dynamics of the workshop and the creation of networks among colleagues. The majority of them also requested more and longer workshops.

16.3 Final Remarks

The main purpose of this chapter has been to communicate the rationale behind the Chilean National Writing Plan (NWP), as well as to recall the main actions and results obtained after 3 years of implementation. The NWP is a policy that incorporates state-of-the-art national and international evidence that supports its actions. As far as national evidence, it considers findings of problems with writing among school and university Chilean students as well as preservice teachers, about low motivation to write among students, about restrictive conceptions related to writing among Chilean preservice teachers and teacher educators, and about evidence of inauthentic and unmotivating writing education practices in Chilean classrooms. As far as international evidence, it considers findings that establish a strong relation between writing motivation and writing performance, as well as the factors that have been documented to hinder the development of motivation to write at the school level; findings of frequent restrictive conceptions, as well as negative attitudes and beliefs about writing and writing education among teachers; and evidence of positive results of teacher writing workshops to reverse this trend. The plan also brings to bear best practices literature that thoroughly describe the pedagogical actions required to promote motivation to write.

All of the above evidence allowed the authors to design a pedagogical policy that was implemented in a pilot version in 2019 and throughout the country in 2021. The choice of beginning the policy with a focus on writing motivation mainly derives from the empirical evidence that describes motivation as an affective and cognitive phenomenon and links writing motivation with writing performance. Following such evidence, the policy assumes that a positive attitude and feelings of self-efficacy as writers are the minimum requirements to predispose students to write and to learn to write. With motivation comes the predisposition to learn. Without motivation learning is hindered. The choice of developing a pedagogical policy is based on two reasons: first, on the recognition that a decade of strong national curricular and assessment writing policy has not impacted students' writing performance, and second, because the international literature available about best practices of writing motivation is clear, thorough, and strong enough to inspire a policy.

Another key characteristic of the NWP is its flexibility and the way in which it embraces the notion of the reflexive teacher. This policy provides teachers with pedagogical resources they can use in different ways that make sense to them and adapt them to their communities' needs, interests, and culture. This decision assumes that communities of writers are all different from each other and that teachers are the most knowledgeable about their specific communities. In other words, this pedagogical policy relies on teacher's decision-making and allows for local differences in implementation.

The qualitative and quantitative results reported in this chapter enable the authors to conclude that the actions of the NWP have the potential to promote writing motivation among students and among teachers, as well as to bring teachers aboard a policy they perceive as relevant for their students and personally enriching. Such

accomplishments should be taken seriously, especially considering the vast literature about teachers' resistance to change and to extraneous intervention in their classrooms. Participants of the teacher writing workshops, as well as respondents of the surveys and interviews, depict feelings of enjoyment and optimism toward the potential of the plan to promote writing motivation and reflect that the policy is actually being implemented with frequency and conviction. Impact results as well as qualitative results from students' experience depict feelings of enjoyment and appreciation of new opportunities to write about personal experiences and worries, to reflect about their lives, and to exercise identity and free choice in school. Students who had the experience of free writing within a community also contrasted this new opportunity with a negative vision of the traditional writing practices they had been part of before the plan. Their comments confirm available evidence that writing teaching practices in the country tend to be inauthentic and unmotivating, which could possibly help to explain students' low motivation to write and their consistent problems with performance. Moreover, these results are especially important for the implication that students feel detached from school practices, bound to repeat actions that do not resonate with their lives or their identities. Further research should explore how these feelings could influence the rest of their school experience, thus affecting not only students' performance in writing but also their well-being and general academic performance. Equally important, further research should overcome the limitations of the studies reported here, especially the sample sizes and regional coverage, in order to be able to reach results that are generalizable to a larger population.

References

Agencia de Calidad de la Educación. (2015). *Resultados de Aprendizaje Escritura 6° Básico*. [*Learning Results Writing 6th grade*] https://archivos.agenciaeducacion.cl/Resultados_Nacionales_Escritura2015_6basico.pdf

Arechabala, M. C., Catoni, M. I., Ávila, N., Riquelme, G., & Aedo, V. (2011). Géneros discursivos y errores más frecuentes en los informes académicos de estudiantes de enfermería. [Discursive genres and most frequent errors in the academic reports of nursing students] *Investigación y Educación en Enfermería, 29*(3), 400–406.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28*(2), 117–148. https://doi.org/10.1207/s15326985ep2802_3

Barton, D., & Hamilton, M. (2004). La literacidad entendida como práctica social. [Literacy understood as a social practice] In V. Zavala, M. Nino-Murcia, & P. Ames (Eds.), *Escritura y sociedad. Nuevas perspectivas teóricas y etnográficas [Writing and society. New theoretical and ethnographic perspectives*] (pp. 109–139). Red para el Desarrollo de las Ciencias Sociales en el Perú.

Benítez, R. (2009). Análisis descriptivo de narraciones escritas por niños y niñas de tercer año básico. [Descriptive analysis of narratives written by boys and girls in third grade] *Literatura y Lingüística, 20*, 103–123.

Benítez, R., & Sotelo, E. (2013). Calidad de la producción escrita en dos secuencias textuales según tipo de establecimiento educacional. [Quality of written production in two textual sequences

according to type of educational establishments] *Logos: Revista de Lingüística, Filosofía y Literatura, 23*(2), 127–150.

Boscolo, P., & Hidi, S. (2006). The multiple meanings of motivation to write. In P. Boscolo & S. Hidi (Eds.), *Studies in writing* (pp. 1–14). Elsevier.

Briones, D., & León, Y. (2018). *Miradas acerca del SIMCE escritura: análisis de los procesos de aplicación y manejo de los resultados en establecimientos particulares subvencionados* [*Perspectives on SIMCE writing: analysis of the application processes and management of the results in private subsidized schools*] (Tesis de Magíster). Universidad Andrés Bello. http://repositorio.unab.cl/xmlui/handle/ria/8894

Concha, S., & Espinosa, M. J. (2022). “Es como tu vida, pero en escritura”: experiencias de escritura libre en comunidad. ["It's like your life, but in writing": free writing experiences in community] *Pensamiento Educativo, 59*(2), 1–5.

Concha, S., Aravena, S., Coloma, C. J., & Romero, V. (2010). Escritura expositiva en tres niveles de escolaridad: coherencia y dominio de recursos lingüísticos. [Expository writing at three levels of schooling: coherence and mastery of linguistic resources] *Literatura y lingüística, 21*, 75–92.

Concha, S., Miño, P., Andrade, P., & Quiroga, R. (2015). Un modelo formativo de aprender a escribir y escribir para aprender en el primer año de universidad: base conceptual y resultados de impacto. [A formative model of learning to write and writing to learn in the first year of university: conceptual basis and impact results] *Miríada Hispánica, 10*, 129–154.

Concha, S., Espinosa, M. J., & Reyes, J. (2022). Actitud y Percepción de Autoeficacia Sobre la Escritura en Estudiantes Chilenos de 3° Básico a 3° Medio. [Attitude and Perception of Self-efficacy on Writing in Chilean Students from 3rd Grade to 3rd Grade secondary schools] *Psykhe, 31*(1), 1–15.

Concha, S., Espinosa, M. J., Reyes, J., & González, C. (under review). *Impacto de un programa de motivación a la escritura en la actitud y la percepción de autoeficacia de estudiantes chilenos de 1° básico a 3° medio*. [*Attitude and Perception of Self-efficacy on Writing in Chilean Students from 3rd Grade to 3rd Grade secondary school*]

Cremin, T., & Oliver, L. (2017). Teachers as writers: A systematic review. *Research Papers in Education, 32*(3), 269–295.

Cueto, S., Andrade, F., & León, J. (2003). *Las actitudes de los estudiantes peruanos hacia la lectura, la escritura, la matemática y las lenguas indígenas*. [*The attitudes of Peruvian students towards reading, writing, mathematics and indigenous languages*] GRADE, Ministerio de Educación.

Darling-Hammond, L., & Bransford, J. (2005). *Preparing teachers for a changing world: What teachers should learn and be able to do*. Jossey-Bass.

De Caso-Fuertes, A. M., & García Sánchez, J. N. (2006). Relación entre la motivación y la escritura. [Relationship between motivation and writing] *Revista Latinoamericana de Psicología, 38*(3), 477–492.

Englert, C. S., Mariage, T., & Dunsmore, K. (2006). Tenets of sociocultural theory in writing instruction research. In C. MacArthur, S. Graham, & J. Fitzgerald (Eds.), *Handbook of writing research*. The Guilford Press.

Errázuriz, M. C. (2019). Desempeño escrito de estudiantes de programas de formación inicial docente: ¿Cómo es la calidad del proceso de escritura de sus ensayos? [Written performance of students in initial teacher training programs: How is the quality of the writing process of their essays?] *Lengua y Habla, 23*, 224–242.

Errázuriz, M. C. (2020). Teorías implícitas sobre escritura de estudiantes y formadores de pedagogía. [Implicit theories about writing of students and educators of pedagogy] *Magis, Revista Internacional de Investigación en Educación, 13*, 1–26.

Errázuriz, M. C., Arriagada, L., Contreras, M., & López, C. (2015). Diagnóstico de la escritura de un ensayo de alumnos novatos de Pedagogía en el campus Villarrica UC, Chile. [Diagnosis of the writing of an essay by novice students of Pedagogy at the Villarrica UC campus, Chile] *Perfiles educativos, 37*(150), 76–90.

Espinosa. (2018). *Enseñanza de la escritura en la escuela: qué, cómo y por qué enseñan así los docentes* (Tesis de Doctorado). [*Teaching writing at school: what, how and why teachers teach like this*] (PhD Thesis) Universidad Diego Portales y Universidad Alberto Hurtado. https://repositorio.uahurtado.cl/handle/11242/24204

Espinosa, M. J., & Concha, S. (2015). Aprendizaje de la escritura en las nuevas bases curriculares de Lenguaje y Comunicación: Nociones teóricas y modelos de escritura que subyacen a la propuesta curricular. [Learning to write in the new curricular bases of Language and Communication: Theoretical notions and writing models that underlie the curricular proposal] *Estudios Pedagógicos, 41*(2), 325–344.

Figueroa, J., Meneses, A., & Chandía, E. (2019). Desempeños en la calidad de explicaciones y argumentaciones en estudiantes chilenos de 8° básico. [Performances in the quality of explanations and arguments in Chilean students of 8th grade] *Signos, 52*(99), 31–54.

Flores-Ferrés, M., van Weijen, D., & Rijlaarsdam, G. (2020). Teachers' writing practices and contextual features in grades 7–12 of Chilean public schools. *Journal of Writing Research, 12*(2), 365.

Galdames, V., Medina, L., San Martín, E., Gaete, R., & Valdivia, A. (2010). *Qué actividades realizan los docentes de NB1 para enseñar a leer y escribir: enfoques tras las prácticas pedagógicas*. [*What activities do NB1 teachers carry out to teach reading and writing: approaches behind pedagogical practices*] Primer Congreso Interdisciplinario de Investigación en Educación.

García Guzmán, A., & Mata, S. (2006). La autopercepción de eficacia en la escritura: una revisión de investigaciones. *Enseñanza and Teaching, 24*, 79–99.

Gelber, D., Ávila Reyes, N., Espinosa Aguirre, M. J., Escribano, R., Figueroa Miralles, J., & Castillo González, C. (2021). Mitos y Realidades sobre la Inclusión de Migrantes en Aulas Chilenas: El Caso de la Escritura. *Archivos Analíticos de Políticas Educativas, 29*(74), 1–26.

Gómez, G., Sotomayor, C., Jéldrez, E., Bedwell, P., Domínguez, A. M., Ávila, N., & Calderón, M. (2016). *La producción escrita de estudiantes y escuela en base a resultados SIMCE, factores contextuales y modelos de buenas prácticas docentes. [The written production of students and school based on SIMCE results, contextual factors and models of good teaching practices]* Informe final proyecto FONIDE No. 911437, FONIDE-Mineduc. https://centroestudios.mineduc.cl/wp-content/uploads/sites/100/2017/07/INFORME-FINAL-F911437.pdf

Graham, S. (2018). A revised writer (s)-within-community model of writing. *Educational Psychologist, 53*(4), 258–279.

Graham, S., & Harris, K. R. (2019). Evidence-based practices in writing. In S. Graham, C. MacArthur, & M. Hebert (Eds.), *Best practices in writing instruction* (pp. 3–29). The Guilford Press.

Graham, S., & Perin, D. (2007). A meta-analysis of writing instruction for adolescent students. *Journal of Educational Psychology, 99*(3), 445–476.

Graham, S., Berninger, V., & Fan, W. (2007). The structural relationship between writing attitude and writing achievement in first and third grade students. *Contemporary Educational Psychology, 32*, 516–536.

Graham, S., Kiuhara, S., Harris, K., & Fishman, E. (2017). The relationship among strategic writing behavior, writing motivation and writing performance with young, developing writers. *The Elementary School Journal, 118*(1), 82–104.

Hidi, S. (2006). Interest: A unique motivational variable. *Educational Research Review, 1*(2), 69–82.

Hidi, S., & Boscolo, P. (2006). Motivation and writing. *Handbook of Writing Research, 144*(157), 304–310.

Hidi, S., & Renninger, A. (2006). The four-phase model of interest development. *Educational Psychologist, 41*(2), 111–127.

Hidi, S., Berndorff, D., & Ainley, M. (2002). Children's argument writing, interest and self-efficacy: An intervention study. *Learning and Instruction, 12*, 429–446. https://doi.org/10.1016/S0959-4752(01)00009-3

Hillocks, G. (1986). Research on written composition: New directions for teaching. In *ERIC clearinghouse on reading and communication skills and national conference on research in English*.

Lipstein, R., & Renninger, K. A. (2007). Putting things into words: The development of 12–15 year old students' interest for writing. In S. Hidi & P. Boscolo (Eds.), *Writing and motivation* (pp. 113–140). Elsevier.

Martínez-Cocó, B., De Caso Fuertes, A. M., & García Sánchez, J. N. (2009). Composición escrita y motivación: una perspectiva de desarrollo. [Written Composition and Motivation: A Development Perspective] *Aula abierta, 37*(1), 129–140.

Mata, L. (2011). Motivation for reading and writing in kindergarten children. *Reading Psychology, 32*(3), 272–299. https://doi.org/10.1080/02702711.2010.545268

Ministerio de Educación. (2008). *Informe de resultados de escritura*. [*Write Results Report*] SIMCE, Ministerio de Educación. https://archivos.agenciaeducacion.cl/biblioteca_digital_historica/resultados/2008/ire4b_2008escr.pdf

Ministerio de Educación. (2012). *Bases Curriculares de Primero a Sexto Básico*. [*Curricular Bases from First to Sixth of Primary*] Ministerio de Educación.

Ministerio de Educación. (2015). *Bases Curriculares de 7° básico a II medio*. [*Curricular Bases from 7th grade to 2nd grade of Secondary*] Ministerio de Educación.

Miras, M., Solé, I., & Castells, N. (2013). Creencias sobre lectura y escritura, producción de síntesis escritas y resultados de aprendizaje. [Beliefs about reading and writing, production of written synthesis and learning results] *Revista Mexicana de Investigación Educativa, 18*(57), 437–459.

Morgan, D. N., & Pytash, K. E. (2014). Preparing preservice teachers to become teachers of writing: A 20-year review of the research literature. *English Education, 47*(1), 6–37.

Pajares, F., Valiante, G., & Fai Cheong, Y. (2006). Writing self-efficacy and its relation to gender, writing motivation and writing competence: A developmental perspective. In S. Hidi & P. Boscolo (Eds.), *Writing and motivation* (pp. 141–162). Elsevier.

Pritchard, R., & Honeycutt, R. (2007). Best practices in implementing a process approach to teaching writing. In S. Graham, C. MacArthur, & J. Fitzgerald (Eds.), *Best practices in writing instruction* (pp. 28–49). The Guilford Press.

Sabaj, O. (2009). Descubriendo algunos problemas en la redacción de Artículos de Investigación Científica (AIC) de alumnos de postgrado. [Discovering some problems in the writing of Scientific Research Articles (AIC) of postgraduate students] *Signos, 42*(69), 107–127.

Schön, D. A. (1987). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. Jossey-Bass.

Shulman, L. (1987). Conocimiento y enseñanza. [Knowledge and teaching] *Estudios Públicos, 83*, 163–196.

Sotomayor, C., Parodi, G., Coloma, C., Ibáñez, R., & Cavada, P. (2011). La formación inicial de docentes de Educación General Básica en Chile.¿ Qué se espera que aprendan los futuros profesores en el área de Lenguaje y Comunicación? [The initial training of teachers of Basic General Education in Chile. What are future teachers expected to learn in the area of Language and Communication?] *Pensamiento Educativo, Revista de Investigación Latinoamericana (PEL), 48*(1), 28–42.

Sotomayor, C., Molina, D., Bedwell, P., & Hernández, C. (2013). Caracterización de problemas ortográficos recurrentes en alumnos de escuelas municipales chilenas de 3°, 5° y 7° básico. [Characterization of recurring spelling problems in students of Chilean municipal schools of 3rd, 5th and 7th grade] *Revista Signos, 46*(81), 105–131.

Sotomayor, C., Gómez, G., Jéldrez, E., Reyes, N. A. Á., Bedwell, P., & Ferro, A. M. D. (2016). Evaluación analítica de la escritura de estudiantes de 4° año básico en Chile. [Analytical evaluation of the writing of 4th grade students in Chile] *Onomázein, 34*, 381–424.

Tapia, M., Burdiles, G., & Arancibia, B. (2003). Aplicación de una pauta diseñada para evaluar informes académicos universitarios. [Application of a guideline designed to evaluate university academic reports] *Revista Signos, 36*(54), 249–257.

Wigfield, A., & Eccles, J. S. (2000). Expectancy–value theory of achievement motivation. *Contemporary Educational Psychology, 25*(1), 68–81. https://doi.org/10.1006/ceps.1999.1015

Chapter 17
Effects of Research-Based Teacher Training on Writing Instruction Practices

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17.1 Introduction

In many countries, including Belgium, France, and the Netherlands, students' performance on writing tests is judged to be globally inadequate (Bucheton, 2014; Koster et al., 2015; Penneman et al., 2016; Rietdijk et al., 2017). Based on studies from around the world in primary education, Rietdijk et al. (2018) explained this poor performance by identifying three main problems related to writing instruction. The first is the limited time devoted to writing and its instruction in the classroom. The second is teachers' feelings of being ill-equipped to teach writing effectively. The third is teachers' lack of use of evidence-based writing practices. This last aspect has actually been documented widely in the literature beyond writing instruction (Altet et al., 2013; Perez-Roux, 2016). In addition to these difficulties, other authors have added the feeling of discouragement that teachers may feel when faced with students' lack of reinvestment of their learning in their written products. They are also discouraged by the many corrections needed for students' texts (Bucheton, 2014; Colognesi & Lucchini, 2016a).

A change in teaching practices could therefore allow for changes and improvements in students' writing performance. Yet, such a change is a significant challenge (Bucheton, 2014; Dellisse et al., 2021; Dupriez, 2015). Quinn and Kim (2017) mentioned that there are at least two reasons why teachers do not change their practices. First, "new" practices do not systematically encourage teachers to change their usual practices. They feel that their practices are no worse than what is being proposed. Second, these new practices are not easily applicable to all classes, in all

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contexts. In addition, teachers tend to only pick up on aspects of the training that confirm their own beliefs and conceptions regarding teaching/learning (Caena, 2011; Hanin et al., 2020, 2022; Vinatier & Morrissette, 2015).

To remedy this, and to make changes in practice easier by making use of research data, a key approach seems to be to train teachers in research and by doing research about problems that concern them (Coburn & Penuel, 2016; Darling-Hammond, 2017; Flores, 2017).

Thus, we investigated whether training in research or by doing research on effective writing instruction practices would lead teachers to want to use these practices in their classrooms. To do this, we followed seven teachers who had participated in research/training on writing instruction. They had between 6 and 15 years of experience. They were trained in a program involving effective practices, adapted the program for their class together with the lead researcher, implemented it in the classroom, and participated in the data collection, analysis, and dissemination. This work took place over a year. Semi-structured interviews were conducted at least 1 year after this experience, to find out the effects of participation in this research/training.

17.2 Theoretical Framework

17.2.1 Effective Writing Instruction Practices

Writing is a complex activity that consists of three dimensions: the writer (the person who writes), the writing process (how the person writes), and the result of this activity (what the person writes; Alamargot et al., 2011; Dabène, 1991). The teaching of writing therefore requires that these three dimensions be considered together (Dabène, 1991), which makes it complex. A number of research studies have been conducted to help teachers improve their writing instruction and address the challenges that it presents. In particular, three meta-analyses provide an update on this issue: those by Graham et al. (2012), Koster et al. (2015), and Van Weijen and Janssen (2018).

Graham et al. (2012) conducted a meta-analysis of writing process interventions with elementary school students in the United States. The purpose of their study was to provide teachers with effective instructional tools for teaching writing. In this work, the authors analyzed about 100 studies. The results showed that several practices improved students' writing quality. These included explicit instruction (in strategies, text structure, creativity, grammar, transcription skills, and metacognition), supporting students in their writing (prewriting activities, peer evaluation, goal setting, teacher feedback) and rewriting.

Subsequently, Koster et al. (2015), following the observation of a need to improve elementary school writing instruction in the Netherlands, also conducted a meta-analysis of writing intervention studies done in a regular school setting with students in grades 4–6. In their research, five categories of interventions, previously

identified by Graham et al. (2012), showed statistically significant results: goal setting, strategy instruction, text structure instruction, peer evaluation, and teacher feedback.

Van Weijen and Janssen (2018) aimed to propose relevant variables that could be incorporated into assessment instruments nationwide, also in the Netherlands, in order to improve writing instruction. The researchers collected 28 writing intervention studies published since 1986 concerning primary education. From their meta-analysis, it appeared that four instructional practices also highlighted in the previous meta-analyses had statistically significant effects on student writing quality: goal setting, strategy instruction, peer evaluation, and teacher feedback.

As a synthesis of this work, we can conclude that effective writing instruction practices are goal setting, teacher intervention, strategy instruction, and peer evaluation, when these occur in instructional programs that promote rewriting. They are listed and detailed in Table 17.1.

In addition, in order to fully consider the writer, recent work on teaching of the writing process has shown that it is relevant to consider the writer's relationship to writing (Colognesi & Niwese, 2020). A writer's relationship to writing is determined by all their writing experiences throughout their life (Barré-De Miniac, 2002). Depending on the theories invoked, it is composed of four or five dimensions: affective, axiological, conceptual, praxeological, and metascriptural (Barré-De Miniac, 2002; Chartrand & Blaser, 2008; Colin, 2014; Colognesi & Lucchini, 2016b). The *affective* dimension refers to the feelings, emotions, and even passions that writing brings. The *axiological* dimension refers to the opinions, values, and attitudes that people may have about writing. The *conceptual* dimension refers to the writer's representations of writing and its learning. The *praxeological*

Table 17.1 Summary of effective practices for teaching writing

Effective practices	Details
Goal setting	Explain the sense and purpose of the writing task Provide students with clear and specific goals throughout the writing process State objectives that can be related to (1) the expected product and the characteristics of the texts to be produced (e.g., length of text, number of paragraphs) or (2) the process involved, by specifying the learning strategies to be acquired
Interventions by the teacher	Provide scaffolding to support students according to the problems raised by the type of text to be produced (e.g., text structure, questions about language) Provide feedback to students, indicating their progress and areas for improvement
Strategies instruction – metacognition	Highlight effective and efficient cognitive and metacognitive strategies that will enable the student to make progress on the task
Peer evaluation	Provide times for peer evaluation
Rewriting	Allow writers to come back to their product and to improve it by adopting a reflective attitude toward it

dimension involves the individual's actual reading and writing practices. The *metascriptural* dimension is added by some authors. It refers in particular to the writer's ability to explain their approaches, choices, the level of their work, difficulties, progress, and the like.

As a result of this research, didactic tools and instructional programs that incorporate these effective practices have been developed, such as the instructional program that we used in the training program for the teachers participating in the study reported here.

17.2.2 Changing Teacher Practices

Several researchers have tried to understand the processes leading to teachers' use of new pedagogical practices and didactic tools. Their research has shown that teachers' uptake of new practices is not easy or quick. On the contrary, it is a long, complex, and dynamic process that constantly requires adjustments (Bélanger et al., 2012; Theureau, 2011). Moreover, according to the same authors, even though a change in teaching practices may seem to be taking place, there is no guarantee that it will be sustainable. A return to previous practices remains possible.

Penneman et al. (2016) pinpointed five types of factors that are needed for teachers' adoption and use of a teaching resource. First, there are factors related to the teacher, such as the teacher's skills in using the resource, the teacher's sense of self-efficacy, the value the teacher places on the resource, the teacher's beliefs and conceptions about the profession, and the teacher's prior practices. Second, there are factors related to the resource, that is, whether it fits into the teacher's professional genre, whether it brings benefits to the users, whether it is not too far removed from usual practices, and whether it is adaptable to the context. Third, there are classroom factors, for example, students (number, initial skill level, motivation, etc.) and classroom climate. Fourth are factors related to the organizational environment, such as relationships between colleagues, the teaching team's relationship with innovation and the values they share, the degree of trust and collaboration between teachers, and the support of the principal. The fifth factors are related to external support: support that can be provided through training and/or specific coaching.

As mentioned previously, changes in practice and the adoption and use of didactic resources can be more easily achieved through training in research and by doing research.

17.2.3 Training Teachers in Research and by Doing Research

In recent years, there has been a trend to incorporate an intensive research orientation into the teacher education curriculum (Darling-Hammond, 2017; Flores, 2017; Snoek et al., 2017). Integrating research into teacher education programs is now

known to provide several benefits, contributing to teacher's effectiveness in the long run. First, research can contribute to teacher's professional development and school improvement (Coburn & Penuel, 2016; Dobber et al., 2012). Second, doing research through inquiry-based work is a way to bridge the gap between theory/research and practice (Baan et al., 2019; Morrissette, 2013). Third, research can help teachers to find solutions to particular problems, it can provide them with up-to-date sources of information, and it can help determine priorities when introducing educational changes (Austin, 2016). Finally, training in research and by doing research is a key to developing teacher's reflexivity (Duroisin et al., 2020).

In recent research, Colognesi and März (2023) analyzed the impact of a collaborative research training module in preparing future teachers in Belgium. Teacher training in research and by doing research was found to have several positive aspects for the participants: (1) the possibility of focusing on a problematic issue in order to understand what happens in the classroom; (2) the change in beliefs and updating of knowledge related to this problematic issue; (3) the opportunity to better observe students and to get an in-depth understanding of how they learn, due to the data collected and the measurement of progress; and (4) a change in perceptions of research, with a feeling of pride about contributing to their profession.

Nevertheless, despite all of these benefits, Aussel and Bedin (2019) drew attention to several types of challenges that need to be considered when implementing this type of training, particularly through collaborative action research (McNiff, 2013; Riel & Lepori, 2011). First of all, there are institutional difficulties, which can arise with regard to impositions or restrictions in the field, such as access to data, for example, or linked with the institution's lack of recognition of the research project. There are also methodological difficulties, in particular the fact of having to collaborate (researcher, teachers, trainers, and even students), and management of the considerable time that the entire process takes up or of the size of the group of participants to ensure efficient and positive follow-up. Epistemological difficulties can also arise since it is a question of producing knowledge together with the teachers and disseminating the results. And the researcher(s) must have an appropriate stance that allows each of them to develop and invest in the research project.

17.3 Method

As a reminder, our aim is to determine whether training in research and by doing research on effective writing instruction practices would lead teachers to want to use them fully in their classrooms. To accomplish this, we opted for a qualitative approach having a comprehensive (Van der Maren, 2004) and interpretative (Savoie-Zajc, 2011) purpose. It is the teachers' perspective that interests us, the meaning they give to effective practices, their motivation (or absence thereof) to change, and their perception of their own development (Bogdan & Biklen, 1992; Denzin & Lincoln, 1994).

Table 17.2 Profile of participants

	Genre	Years of experience	Function	Grade
Teacher 1	Female	20	Primary school teacher	Fifth (aged 10–11)
Teacher 2	Female	15	Secondary school French teacher	First–third (aged 12–15)
Teacher 3	Female	9	Primary school teacher	Sixth (aged 11–12)
Teacher 4	Female	6	Secondary school French teacher	DASPA, B1[a]
Teacher 5	Female	10	Primary school teacher	Sixth (aged 11–12)
Teacher 6	Female	8	Primary school teacher	Sixth (aged 11–12)
Teacher 7	Male	11	Primary school teacher	Fifth (aged 10–11)

[a]DASPA (In French: Dispositif d'Accueil et de Scolarisation des élèves Primo-Arrivants et Assimilés; this means Reception and schooling program for newcomers). In the DASPA classes, French as a foreign language is taught to students aged 12–18 in secondary education. Level B1 corresponds to the level at which the student is able to write a short text according to the CEFR (Common European Framework of Reference for Languages), a reference tool defining language levels

17.3.1 Participants

Seven teachers participated in this study. Their characteristics are described in Table 17.2.

17.3.2 Training Teachers in Effective Practices for Teaching Writing

All participants were enrolled in a master's degree program in education, providing them with training in research and by doing research. Two specific parts of that program have particular relevance regarding dedicated training in effective writing instruction practices.

First, participants took a "language didactics" course. This 30-hour course follows the principles of LETRA (Learner Engineer Teacher Reflective Analyst: Colognesi & Lucchini, 2022), where students adopt several different roles in order to grasp the content of, in this case, effective writing instruction practices. They first take on the *role of learners*, working through an instructional program that itself implements effective practices for teaching writing, the *Itineraries* method. This can be summarized as follows.

The teacher assigns a writing project to the class, highlighting the objectives and characteristics of the texts to be produced (Goal setting). Students write a first draft of a text related to a discourse genre (e.g., a wanted notice), without any teacher's intervention. They are then put in groups of three or four and given the task of comparing the first drafts they have written. They must identify what is the same in all

of their texts, what is different, and what is problematic. This is followed by a collective synthesis based on highlighting the differences between groups. After that, in order to answer the questions that have emerged from comparison of their first versions, the students are given a corpus of model writing products belonging to the same discursive genre (Interventions by the teacher: scaffolding “textual structure”). As before, they must find the elements that are identical to all of the products, the differences, and the aspects that are problematic. This is also followed by a synthesis. The identical aspects become the characteristics guiding the organization of the text (the obligatory elements to be considered). The differences are discussed as options. The activity ends with the creation of a summary sheet that includes the characteristics discovered. These aspects are to be considered when students rewrite the text immediately afterward (Rewriting). After that, students read and comment on each other’s texts to help them improve (Peer evaluation). The evaluative criteria are mainly those worked on before related to the structure of the text. Then, the students again rewrite their texts with the help of this feedback (Rewriting). The teacher then offers adapted support (instruction on grammar, conjugations, vocabulary, spelling, etc.) depending on the students’ difficulties and the genre to be produced (Interventions by the teacher: scaffolding “language”). This support is given either for the whole class, for small groups of students, or individually. The students then again rework their texts with the help of that teacher’s input (Rewriting), followed by another peer evaluation session (Peer evaluation). This time, the evaluative criteria are based on what students were told about during the teacher’s language scaffolding. Finally, the students write a final version of their text (Rewriting), which the teacher can monitor by giving final feedback (Interventions by the teacher: final feedback). Throughout this process, discussions take place about how students are going about creating and reworking their texts and on the contributions of the different activities (metacognition). Students are also asked to answer metacognitive questions that highlight aspects (content, strategies) that can be used during their next rewrite and, ultimately, when writing a similar type of text. The final versions are distributed to the intended recipients identified in the writing objectives. A few weeks later, students are asked to produce another text of the same genre, in which the learning can be transferred (for more details on this instructional program and its effects on the development of students’ writing competence, see in particular Colognesi and Lucchini (2018) and Colognesi et al. (2021)).

In the language didactics course, the students experience this method step-by-step, by having to write a text adapted to their level. Then they explain how they felt as writers, what they experienced, and so forth. The theoretical principles grounding the method are then highlighted, in connection with the literature in the field. After having been learners, the students take on the *role of engineer*. In small groups, they develop an instructional program similar to the Itineraries program but adapted to their professional area. Then they take on the *role of teachers*. They experience presenting their designed activities in the classroom with their own students. Finally, the students take on the *role of reflective analysts*. That is, they take a reflexive stance on what happened in the classroom. All steps are monitored by the trainer. At the end of the course, the students present what they have done to the others.

Table 17.3 Research question of participants' master's thesis

	Research question of the master's thesis
Teacher 1	What are the effects of feedback given by the teacher, by a peer, or by peers who collectively negotiate it?
Teacher 2	What are the effects of the Itineraries program on the writing development of early high school students?
Teacher 3	During the implementation of the Itineraries program, what writing processes do struggling students use?
Teacher 4	What are the effects of the Itineraries program on the writing development of immigrant students at the B1 level?
Teacher 5	What are the effects of providing metacognitive mediation on the writing competence of 10–12-year-old students?
Teacher 6	During the implementation of the Itineraries program, what writing processes do students use?
Teacher 7	What are the effects of the Itineraries program on 10–12-year-old students' relationship to writing?

Second, all seven participants completed their master's theses on writing, each focusing on a specific issue (see Table 17.3). This involved extensive reading and summarizing of the research in a literature review; designing a complete intervention to be tested, based on the principles seen in the language didactics class; collecting experimental data related to their research question in several classes, including a control class; and analyzing and interpreting the data. They used mixed methods: quantitative analyses to measure student's progress and qualitative analyses to gain a deeper understanding of what happened.

In all, participants experienced effective writing instruction practices themselves as learners and implemented these practices as teachers as part of the didactics class; they then developed, implemented, and evaluated an intervention related to a research question concerning effective writing instruction practices, to observe these practices and analyze their effects, as part of their thesis. This was separate from their implementation of their designed version of the Itineraries program during the class.

17.3.3 Data Collection and Analysis

Semi-structured interviews were conducted at least 1 year after the research/training. The aim was to gain access to the representations, intentions, choices, and decisions of the individual participants (Lefebvre et al., 2008). The interview guide contained three parts: (1) presentation of the interview process, (2) questions about the interviewee as well as a brief description of what they implemented in their research project on the teaching of writing, and (3) a discussion around their current practices for teaching writing, the resources used, and whether or not they have implemented identified effective practices. Various questions were formulated to

guide the interviewee, focus the discussion, and refocus the topic, if necessary (e.g., Could you describe a "typical" activity you used to teach writing? What was new for you in the training? How do you teach writing now? Why do you do this? What did you keep from the training in your current practice?).

Interviews were conducted in March/April 2020 via videoconferencing. Each interview was recorded and lasted an average of 45 minutes. All interviews were transcribed. An average interview was 3340 words. A content analysis (L'Écuyer, 1990) was applied to the collected data. A total of 164 units of meaning were selected for analysis. The categorization of these units was a combination of deductive coding (i.e., using categories derived from theories, such as effective practices, adaptation of the instructional program promoted in the training, impact of research) and inductive coding (e.g., the teacher as a transmitter of knowledge).

17.4 Findings

As a reminder, the aim of this research is to understand whether training in research and by doing research on effective writing instruction practices leads teachers to want to use these practices fully in their classrooms. The main results of our analyses are reported here. First, pretraining practices are presented. Then, the similarities and differences in the changes made by the participants are highlighted. Next, the extent to which participants adapted or did not adapt the "Itinerary" instructional program is noted. Finally, two additional elements are proposed: the aspects that justify the changes noted and the fact that teachers also wanted to improve practices more broadly in their schools. Representative quotations are proposed to illustrate the findings. They have been translated from French.

It should be noted that when we say "training," then in the presentation of the findings, we are including both the learning about/use of the Itineraries method and their research related to their master's thesis.

17.4.1 Participants' Practices Before the Training

Before the training, the participants' writing instruction practices were very similar. Each teacher had his/her students write a first draft, followed by proofreading using a criteria or rubrics, and then production of a final version to be handed in. Therefore, the students of these teachers wrote two versions.

> I was working on writing in a very basic way. First, students made a small draft. Then, they had to revise it. (T7)

In addition, they explained that the time they had for writing in class was very limited:

> I did not work on writing in class very often, if at all. (T2)

> And so finally, we had 3 or 4 of these writing products over the year. (T6)

Two major difficulties were highlighted to explain this: the feeling of not being able to teach writing, as well as the corrections that they found tedious:

> I even tended to skip writing activities. Because I didn't feel equipped to work on writing. Not to mention the tedious corrections. (T7)

Nevertheless, the participants mentioned that two effective practices were already present in their writing instruction before the training. This was the case for clarification of objectives (five out of seven) and teacher feedback (five out of seven). These practices were maintained or even increased after the training for those who were already using them.

> The objectives necessarily behave, well, I was already doing it, but the fact of having reviewed it with Itineraries, automatically, to put the child in a project, to give him clear objectives, I think that I also do it more than before, like putting in writing on a big poster the goal of the activity, why we are going to do that, what stages we go through, and each time to come back, to start again from that at each session so that it is very clear in their head what we are doing, that, I think that is something that I kept. (T3)

17.4.2 Four Effective Practices Being Implemented by All Participants After the Training: Rewriting, Scaffolding, Feedback, and Attention to the Writer

In retrospect, all participants described their former practices negatively. They said they no longer agreed with that way of doing things.

> Generally speaking, well, the writing wasn't, uh, it wasn't great in my class. (T5)

> I was teaching it in a really bad way. (T6)

> Now I work differently with writing. First, my way of working with writing was not fully enriching for the students. I would even say it really sucked to begin with. I'm not afraid to say it like that. (T7)

The participants all said that they had made four major changes as a result of these observations: using rewriting, scaffolding, feedback, and taking the writer into account.

First, they explained that they had gone from two drafts (a draft and a "clean" version) to several versions. In this way, students have time to rewrite and rework their texts in response to the support they receive. As a result, the participants also all said that they had rethought the school agenda in terms of the time spent working on writing.

> The realization that drafting/correcting doesn't lead to a finished text, doesn't really allow you to discover the substance of the material. It doesn't really allow you to integrate it. (T1)

> The time that we put into this work is obviously more consequential (...) But it's not a waste of time at all. (T6)

Second, scaffolding was also now present in the practices of all participants. The seven teachers said these helped students to improve their writing. They then saw a direct reinvestment of the lessons in the students' products. This was a change in their conception of language teaching. Indeed, the participants mentioned that they now see the subjects (such as grammar, conjugation, etc.) as directly linked to the texts to be produced, no longer in a "fragmented" way, as was the case before.

> In terms of scaffolding, they really make sense because they are directly useful and we haven't learned pronouns once and determiners once. We learned, "How do we avoid repetition?" and so we use pronouns, and so we use determiners. So it's seeing the material in a completely involved way, and uh, there you go, for me that changes everything. (T1)

Third, teacher feedback was provided in participants' writing activities. Three of them explained that with experience, they think their feedback is more and more effective. They said that providing good feedback cannot be improvised, and that it is important for feedback to be thoughtful and structured. Teacher 7 said that he begins his feedback by comparing different rewrites by the same student. In his opinion, the practice of feedback is essential and rewarding for the students.

> Feedback, I do it in a more efficient way uh... with the exercise, too, because I think it can't be improvised. (T6)

> Essential for me. It is also rewarding for the student. My feedback starts each time with a comparison of the different rewrites. (T7)

Fourth, all of the participants also talked about students as writers and their awareness of their development and their relationship with writing. We noticed in the comments of the teachers that they were attentive to this and observed the pupils in this sense.

> They got into this work with great motivation. I had never seen that before. (T7)

> I can see that there is a real evolution and a real investment in the work by the children. (T1)

The teachers expressed that they have sought to show the purpose of the written products assigned to the students. They also said that they try to bring pleasure to writing. They also try to allow the students to identify their progress themselves.

> And it's true that it's super enriching for everyone and my students were super proud afterwards too. That feeling of... of having finally done something good. (T2)

> And then, the pride of the students, so everything that is commitment to the task and self-esteem, perception of one's own value, had an effect because the students were super proud of their writing, they saw that they had obviously progressed. (T5)

17.4.3 Two Important but Complex Transformations: Peer Evaluation and the Elicitation of Metacognition

The interviews showed that two practices had undergone significant transformation for six of the seven teachers: peer evaluation and metacognition.

Regarding the peer evaluation, all six teachers explained that asking students to give feedback on each other's work was something totally new to them. The students enjoyed it very much. They mentioned the mutual support between students that developed thanks to the collaborative proofreading and the positive effects on improving the texts.

> What was new was to uh... to have them write and use each other's perspective. Before, it was each one for himself and here everyone was helping each other, so it was this collective dimension in their texts, even though they were individual, so that was totally new. (T6)

> The feedback by the peers (...) and then after practicing it, they really realize the benefits they get from it and it's really very positive for them, so that was also a little novelty. (T3)

Nevertheless, one participant (T4) felt that it was not easy to implement peer evaluation.

> It is not always easy at this level to find students who work well together. (T4)

The six teachers also said that they now seek to elicit metacognition from their students during writing situations. They explained that they ask questions so that students can tell what they are doing and explained their difficulties, their progress, their choices, their strategies, and so forth.

> Metacognition, I sometimes ask them meta questions or I also write small questions on a few sheets of paper at the end. (T3)

Yet, all six teachers said that they do not do it as much as they would like. And three teachers (T4, T5, and T7) explained that they have difficulty doing so and would like to improve on this point.

> I still don't do it enough for my taste, but I know how much metacognition influences the process of relationship to writing. This is the point I am working on. (T7)

T2 explicitly said that she does not use peer evaluation and metacognition. However, she had tried these practices at the time of the research and had found them to be positive.

> What changed a lot was to have them work together (...) I was really learned: we had the habit of working individually, we try not to make too much noise. It was really completely new, but very positive in the end. Quite frankly I was impressed. (T2)

She explained that she does not implement these two practices for three reasons: (1) the change in the curriculum, (2) the fact that she has to work with her colleagues who are not trained in this and she feels forced to follow the group, and (3) the difficulty for her students to give constructive feedback.

> Everything that has to do with the teacher, feedback, support, etc. I still do that, but everything that has to do with peers, you can take it away, I don't do it anymore. Metacognition uh... not anymore in fact. (...) A lot of courses were changed in the programs as well and we work in parallel with other colleagues, so it's not easy to always work as we would really want to. (T2)

> The difficulty for them is to make constructive comments (...) to say when something is not going well, it is not easy for them (...) they don't have the words, in fact, and perhaps they don't dare either, so as not to offend. (T2)

17.4.4 Rigid or Adaptive Use of the Instructional Program for Students

Of the six teachers who changed their way of teaching writing, five (T1, T3, T5, T6, and T7) said that they were using the Itineraries method presented in their training. T4 explained that she uses the manuals explaining this instructional program. She clarified that she adheres to the authors' instructions rigorously, out of fear of missing out on an important element:

> I follow the manual as is (...). I stick to it, so that I don't just go too fast with something that has to come afterwards or things like that, to let things come as the training program says. It works, so there's no reason for me to try to skip a step. Certainly not. That would be failing the instructional program for me. (T4)

The other five teachers explained that they are more comfortable with the experience. They have understood the principles and structure of the instructional program. As a result, they are able to take more or less time, to vary certain aspects depending on their class. They also built their own itineraries for the genres of texts they wanted to work on with their students.

> The one I tested for research I really followed without changing anything. Now I've perhaps become a little more detached. (...) I vary the questions, the instructions. I'm more comfortable, and I'm cooler with the follow-up. (T5)

T1 had a similar approach: she kept the effective principles for teaching writing but did not necessarily follow the instructional program as laid out during their training.

17.4.5 Research as a Stimulus and Awareness

Participants attributed all these transformations to the training in research and by doing research. Indeed, we found in their comments that they understood the theoretical frameworks. It was now easier for them to use these frameworks in their practices.

> I feel like having worked on understanding effective practices for my dissertation. I still studied the how, the why and so I did some research. I read all the articles about them and

> the benefits of metacognition, scaffolding, feedback (…) I am convinced, even of the rewriting stages, and so obviously I feel more confident. (T1)

> Feedback, I do it, now it's true that I give them more... well it's also linked to Mrs. X's course (i.e., another course in the master program, SC), and so feedback, obviously I do it, I know the concept, I know towards what, how, which types, etc. and it's true that I do it more efficiently. (T6)

In addition, collecting data, analyzing it, and writing a research paper seem to have been an important vehicle for changing their practices.

> The metacognitive mediations, which were quite difficult at the beginning because the students are not used to it, but uh... I didn't believe in it, in fact, at the beginning, I didn't think that I would have, that I would see a result on the writing, so I was in the end positively impressed to see that there was a difference in the writing. (T5)

> From the interviews with the students, it was apparent that they had a sense of pride at the end of the project, they were proud and seemed aware of their progress. (T4)

It was also apparent from the interviews that in addition to changing their practices in teaching writing, teachers had adapted their vision of teaching and strengthened their overall practices.

> When I teach history-geography, I encourage group discussions for these assignments. (T1)

17.4.6 Teachers as Knowledge Ambassadors and Resources in Their Schools

The six teachers out of the seven who fundamentally changed their practices expressed that they wanted to share them with their colleagues. They tried to convince them to experiment with such changes as well. To do this, they told their colleagues about the positive results of the program, shared their experiences and the knowledge they had acquired during the training, and presented their students' products. With the support of his principal, T7 even gave his colleagues a 1-day training session on the effective practices for teaching writing. T5, who is now a teacher trainer, shared the instructional program with her students and colleagues and purchased resources for the library.

> I wanted to share this discovery with them and so I explained to them what the thesis consisted of, the Itineraries system, I showed them examples of children‘s products, etc. to try to convince them to apply this method and to practice the teaching of writing differently in their class. (T3)

> I even did a 1-day training and brought activities to life. I had asked the trainer for help to make sure I mastered things. (T7)

In this way, they were able to convince some colleagues to follow them in implementing effective practices for teaching writing. T3 persuaded her entire team to purchase the manuals and even acts as a mentor for other teachers in her school.

> I use the itineraries. And by the way, I convinced my colleagues to get it, I think all the grades have it now. I even supervised my 5th grade colleague who was a little hesitant. I told him, "Go ahead, we'll do some debriefs, I can help you" so I try to motivate them to start. (T3)

T6 explained that among her colleagues, there were many ways to react to her suggestion that they integrate effective practices for teaching writing. She explained that only one colleague was directly receptive, the one who had completed a master's degree in education. For the others, she said they need time. And she also mentioned that some colleagues do not want to change their practices because they feel it is too much work:

> Of course, I talked about it already to my close colleagues because they knew what I was working on. I told them about it, I showed them (...). Now, uh, with my direct colleague from 6th grade, clearly yes, she was into it, but she also did a master's degree in education, so she also understands the scope, she sees the numbers, the results, so she also understands, and she is motivated to do it. (...) People who are a little reluctant, you show them and even if they don't do it at the same time as you, the same year, you show what you have done with your students, you show the products, the progress, etc. and that convinces them a little bit, you convince them a little like that. (T6)

17.5 Discussion and Conclusion

In the end, it appears that the participants in training and research had a desire to change their practices as a result of this experience. This further confirms the positive effects of training in research and by doing research (Coburn & Penuel, 2016; Dobber et al., 2012), when no inhibiting factors occur, such as institutional difficulties or tensions related to the conditions of knowledge production (Aussel & Bedin, 2019). We saw in the participants' discourse that they were able to argue for their choices, linked to theoretical frameworks that they had understood and integrated. One lever for change was the analysis of data, giving the opportunity to better observe the students and to understand their functioning more precisely (Colognesi & März, 2023).

Therefore, of the seven teachers interviewed, six reported fundamentally changing their writing instruction practices so as to implement effective practices (Graham et al., 2012; Koster et al., 2015; Van Weijen & Janssen, 2018). All felt that they implemented rewrites, feedback, and scaffolding and were attentive to students' relationship to writing. And six of the seven teachers added peer evaluation and eliciting student metacognition. But they specified that these practices were the most complex for them to implement, especially the metacognitive prompts. The participants said that they felt the least comfortable with this practice. This has also been noted in other works (Depaepe et al., 2015; Vlassis et al., 2014). This is

certainly one practice where teacher training can be improved, especially given the effects of metacognition on learning writing (Colognesi et al., 2020).

The teacher who did not introduce peer evaluation and metacognition into her writing instruction justified it by two main reasons. First, she explained that her teaching context is not suitable for these practices (Quinn & Kim, 2017). This is because she believes that students in her context do not have the skills to collaborate around evaluation of other students' works. She also believes that they are not able to respond to metacognitive prompts. Second, she referred to the organizational environment factor (Penneman et al., 2016), by explaining that her colleagues pressured her to stick to their common practices (Coppe et al., 2018).

Furthermore, one point that emerged from the analyses was that the teachers who participated in the training felt competent not only to change things in their practice but also to make a more ambitious change within their school. Participants explained that they shared practices with their colleagues. They tried to convince them to improve their writing instruction practices. In this way, they became resources/trainers for their colleagues and positioned themselves as knowledge ambassadors. Thus, while the training of our participants was a long and demanding process for them in terms of investment, it seems that direct colleagues could benefit as well. This was a success in some schools. In this way, training to and through research tends to improve the quality of teaching for participants but also for the school (Coburn & Penuel, 2016; Dobber et al., 2012). It would be worthwhile for future research to examine the instructional practice of those teachers trained by a colleague and their perceptions. It needs to be noted, however, that this training of colleagues did not occur in all schools, reinforcing the idea that changing practice is a long and complex process (Bélanger et al., 2012; Theureau, 2011).

17.6 Final Remarks

Limitations and Perspectives

Our study is not without its limitations. First, we worked with a small number of participants, which does not allow us to generalize the results. Second, we deliberately based our investigation on the self-reported practices of the teachers. It would be interesting to see their actual practices as well through classroom observations, and as triangulated with their lesson plans, in order to really be able to substantiate the implementation of the practices discussed here. Third, the time spent between the training and the interviews was not identical for all participants, since they did not belong to the same cohort. This may have played a role in their greater or lesser implementation of certain practices.

Practical Implications

This study allows us to identify some practical implications for the teaching of writing. First of all, we should consider teacher training modules as research, with specific questions for the students to take up. Second, these questions should focus on

the two practices that seem most complex for teachers to implement: peer assessment and metacognition. The challenge would then be to see how to implement these practices in a concrete and adaptable way for the school's different audiences. Regarding peer evaluation, we could examine, for example, the following: how can students be helped to give feedback? What guidelines should be put in place so that students can give effective feedback to their peers? For metacognition, work could be done on the type of questions to ask students and at what times and also question the most effective modalities (is it better to have students say out loud or write down or both?). In this regard, it also seems necessary to work with teachers on beliefs and realities about metacognition, such as the fact that it is only accessible to a certain audience.

References

Alamargot, D., Caporossi, G., Chesnet, D., & Ros, C. (2011). What makes a skilled writer? Working memory and audience awareness during text composition. *Learning and Individual Differences, 21*(5), 505–516. https://doi.org/10.1016/j.lindif.2011.06.001

Altet, M., Desjardins, J., Etienne, R., Paquay, L., & Perrenoud, P. (Eds.). (2013). *Former des enseignants réflexifs: Obstacles et résistances* [Training reflective teachers: Obstacles and resistance]. De Boeck.

Aussel, L., & Bedin, V. (2019). Analyse critique des difficultés à conduire des recherches collaboratives en évaluation [Critical analysis of the challenges of conducting collaborative research in evaluation]. *La Revue LEeE, 1*. https://doi.org/10.48325/rleee.001.05

Austin, R. (Ed.). (2016). *Researching primary education*. SAGE Books. https://doi.org/10.4135/9781473984172

Baan, J., Gaikhorst, L., van't Noordende, J. E., & Volman, M. L. L. (2019). The involvement in inquiry-based working of teachers of research-intensive versus practically oriented teacher education programmes. *Teaching and Teacher Education, 84*, 74–82.

Barré-De Miniac, C. (2002). Le rapport à l'écriture. Une notion à plusieurs dimensions [The relationship to writing. A notion with several dimensions]. *Pratiques, 113*(114), 29–40. https://doi.org/10.3406/prati.2002.1943

Bélanger, J., Bowen, F., Cartier, S., Desbiens, N., Montésinos-Gelet, I., & Turcotte, L. (2012). L'appropriation de nouvelles pratiques d'interventions pédagogiques et éducatives en milieu scolaire: Réflexions sur un cadre théorique intégrateur [The appropriation of new pedagogical and educational intervention practices in schools: Reflections on an integrative theoretical framework]. *Education et francophonie, 40*(1), 56–75. https://doi.org/10.7202/1010146ar

Bogdan, R., & Biklen, S. K. (1992). *Qualitative research for education: An introduction to theory and methods*. Allyn and Bacon.

Bucheton, D. (2014). *Refonder l'enseignement de l'écriture* [Refounding the teaching of writing]. Retz.

Caena, J. (2011). *Literature review: Quality in teachers' continuing professional development*. European Commission.

Chartrand, S. G., & Blaser, C. (Eds.). (2008). *Le rapport à l'écrit: Un outil pour enseigner de l'école à l'université* [The relationship with the writing: A tool for teaching from school to university]. PUN, Dyptique-12.

Coburn, C. E., & Penuel, W. R. (2016). Research–practice partnerships in education: Outcomes, dynamics, and open questions. *Educational Researcher, 45*, 48–54.

Colin, D. (2014). *Les pratiques d'écriture dans le discours des enseignants* [Writing practices in teachers' discourse] (Doctoral thesis). Université d'Orléans.

Colognesi, S., & Lucchini, S. (2016a). Le rapport à l'écrit des élèves: focalisation sur la dimension métascripturale [Students' relationship with writing: Focus on the metascriptural dimension]. *Nouveaux cahiers de la recherche en éducation, 19*(2), 33–52. https://doi.org/10.7202/1042848ar

Colognesi, S., & Lucchini, S. (2016b). Mise à l'épreuve de deux dispositifs pour développer l'écriture en milieu scolaire: chantier vs atelier [Testing of two approaches to developing writing in schools]. *Enfance, 2*(2), 193–215. https://doi.org/10.4074/S0013754516002032

Colognesi, S., & Lucchini, S. (2018). Enseigner l'écriture: l'impact des étayages et des interactions entre pairs sur le développement de la compétence scripturale [Teaching writing: The impact of scaffolding and peer interaction on the development of writing skills]. *Revue canadienne de l'éducation, 41*(1), 224–249.

Colognesi, S., & Lucchini, S. (2022). LETRA: A teacher training program based on the adoption of different roles. *McGill Journal of Education, 56*(2/3), 314–323.

Colognesi, S., & März, V. (2023). Educating about and through research. The role of research in pre-service teachers' classroom practices. In J. Madalińska-Michalak (Ed.), *Quality teachers and quality teacher education. International Perspectives from a Changing World* (pp. 329–351). BRILL.

Colognesi, S., & Niwese, M. (2020). Do effective practices for teaching writing change students' relationship to writing? Exploratory study with students aged 10–12 years. *L1-Educational Studies in Language and Literature, 20*, 1–25.

Colognesi, S., Piret, C., Demorsy, S., & Barbier, E. (2020). Teaching writing – with or without metacognition?: An exploratory study of 11-to 12-year-old students writing a book review. *International Electronic Journal of Elementary Education, 12*(5), 459–470.

Colognesi, S., Deprit, A., Coppe, T., Van Nieuwenhoven, C., März, V., & Hanin, V. (2021). Developing student teachers' reflexivity toward their course planning: Implementation of a training program focused on writing and reflective skills. *SAGE Open, 11*(2), 215824402110168. https://doi.org/10.1177/21582440211016897

Coppe, T., März, V., Decuypere, M., Springuel, F., & Colognesi, S. (2018). Ouvrir la boite noire du travail de préparation de l'enseignant: essai de modélisation et d'illustration autour du choix et de l'évolution d'un document support de cours [Opening the black box of course preparation: presenting a model and illustration of the choice and development of course material]. *Revue française de pédagogie, 204*(3), 17–31.

Dabène, M. (1991). Un modèle didactique de la compétence scripturale [A didactic model of scriptural competence]. *Repères, 4*, 9–22. https://doi.org/10.3406/reper.1991.2030

Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education, 40*, 291–309.

Dellisse, S., Dumay, X., Galand, B., Dupriez, V., Dufays, J.-L., Coertjens, L., De Croix, S., & Penneman, J. (2021). Does the treatment integrity of a literacy instruction program foster student reading comprehension? A field experiment. *European Journal of Psychology of Education, 36*, 573–597. https://doi.org/10.1007/s10212-020-00499-w

Denzin, N. K., & Lincoln, Y. S. (1994). Introduction: Entering the field of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 1–17). Sage Publications.

Depaepe, F., De Corte, E., & Verschaffel, L. (2015). Students' non-realistic mathematical modeling as drawback of teachers' beliefs about and approaches to word problem solving. In B. Roesken-Winter (Ed.), *From beliefs to dynamic affect systems in mathematics education* (pp. 137–156). Springer.

Dobber, M., Akkerman, S. F., Verloop, N., & Vermunt, J. D. (2012). Student teachers' collaborative research: Small-scale research projects during teacher education. *Teaching and Teacher Education, 28*(4), 609–617.

Dupriez, V. (2015). *Peut-on réformer l'école?: Approches organisationnelle et institutionnelle du changement pédagogique* [Can we reform the school?: Organizational and institutional approaches to educational change]. De Boeck.

Duroisin, N., Beauset, R., & Simon, L. (2020). Description d'un dispositif de formation de type «lesson study» basé sur la collaboration entre étudiants d'Université et de Haute École: former à et par la recherche [Description of a "Elesson study" type of training system based on collaboration between university and college students: Training in and through research]. *Revue hybride de l'éducation, 4*(4), 114–152.

Flores, M. A. (2017). Practice, theory and research in initial teacher education: International perspectives. *European Journal of Teacher Education, 40*, 287–290.

Graham, S., McKeown, D., Kiuhara, S., & Harris, K. R. (2012). Meta-analysis of writing instruction for students in elementary grades. *Journal of Educational Psychology, 104*(4), 879–896. https://doi.org/10.1037/a0029185

Hanin, V., Colognesi, S., Cambier, A.-C., Bury, C., & Van Nieuwenhoven, C. (2020). Décris-moi ta conception de l'intelligence et je te dirai quelle(s) pratique(s) évaluative(s) tu as tendance à préconiser [Describe your conception of intelligence and I will tell you what evaluative practice(s) you tend to promote]. *Évaluer. Journal international de recherche en éducation et formation, 6*(2), 45–71.

Hanin, V., Colognesi, S., Cambier, A. C., Bury, C., & Van Nieuwenhoven, C. (2022). Association between prospective elementary school teachers' year of study and their type of conception of intelligence. *International Journal of Educational Research, 115*, 102039.

Koster, M., Tribushinina, E., De Jong, P. F., & van den Bergh, H. (2015). Teaching children to write: A meta- analysis of writing intervention research. *Journal of Writing Research, 7*(2), 299–324. https://doi.org/10.17239/jowr-2015.07.02.2

L'Écuyer, R. (1990). *Méthodologie de l'analyse développementale de contenu* [Methodology of developmental content analysis]. Québec University Press.

Lefebvre, S., Deaudelin, C., & Loiselle, J. (2008). Pratiques d'enseignement et conceptions de l'enseignement et de l'apprentissage d'enseignants du primaire à divers niveaux du processus d'implantation des TIC [Teaching practices and conceptions of teaching and learning of primary school teachers at different levels of the ICT implementation process]. *La revue canadienne de l'apprentissage et de la technologie, 34*(1), 10.21432/T27W2W.

McNiff, J. (2013). *Action research: Principals and practice*. Routledge.

Morrissette, J. (2013). Recherche-action et recherche collaborative: quel rapport aux savoirs et à la production de savoirs ? [Action research and collaborative research: What relationship to knowledge and knowledge production?]. *Nouvelles Pratiques Sociales, 25*(2), 35–49.

Penneman, J., De Croix, S., Dellisse, S., Dufays, J.-L., Dumay, X., Dupriez, V., Galand, B., & Wyns, M. (2016). Outils didactiques et changement pédagogique: analyse longitudinale de l'appropriation de l'outil Lirécrire par des enseignants du secondaires [Didactic Tools and Pedagogical Change: A Longitudinal Analysis of Secondary School Teachers' Appropriation of the Lirécrire Tool]. *Revue Française de Pédagogie, 197*, 79–98. Retrieved from https://www.cairn.info/revue-francaise-de-pedagogie-2016-4-page-79.htm

Perez-Roux, T. (2016). Formation des enseignants et mobilisation des savoirs. La formation des enseignants du secondaire en France: entre universitarisation et professionnalisation, quelle mobilisation des savoirs en fonction des contextes [Teacher training and knowledge mobilization. The training of secondary school teachers in France: Between academicization and professionalization, what mobilization of knowledge according to the contexts]? *Education & Formation, e-305*, 11–22.

Quinn, D. M., & Kim, J. S. (2017). Scaffolding fidelity and adaptation in educational program implementation: Experimental evidence from a literacy intervention. *American Educational Research Journal, 54*(6), 1187–1220.

Riel, M., & Lepori, K. (2011, April). *A meta-analysis of the outcomes of action research.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans.

Rietdijk, S., Janssen, T., van Weijen, D., van den Bergh, H., & Rijlaarsdam, G. (2017). Improving writing in primary schools through a comprehensive writing program. *The Journal of Writing Research, 9*(2), 173–225. https://doi.org/10.17239/jowr-2017.09.02.04

Rietdijk, S., van Weijen, D., Janssen, T., van den Bergh, H., & Rijlaarsdam, G. (2018). Teaching writing in primary education: Classroom practice, time, teachers' beliefs and skills. *Journal of Educational Psychology, 110*(5), 640–663. https://doi.org/10.1037/edu0000237

Savoie-Zajc, L. (2011). La recherche qualitative/interprétative en éducation [Qualitative/interpretive research in education]. In T. Karsenti & L. Savoie-Zajc (Eds.), *La recherche en éducation: étapes et approches* (pp. 123–147). ERPI.

Snoek, M., Bekebrede, J., Hanna, F., Creton, T., & Edzes, H. (2017). The contribution of graduation research to school development: Graduation research as a boundary practice. *European Journal of Teacher Education, 40*, 361–378.

Theureau, J. (2011). Appropriation 1, 2, 3 ou Appropriation, Incorporation & 'Inculturation'. In *Conférence Journée Ergo-Idf Appropriation & Ergonomie*, Paris.

Van der Maren, J. M. (2004). *Méthodes de recherche pour l'éducation* [Research methods for education]. Montreal University Press and De Boeck.

Van Weijen, D., & Janssen, T. (2018). High-quality writing instruction in Dutch primary education. A framework for national assessment. *L1-Educational Studies in Language and Literature, 18*, 1–41. https://doi.org/10.17239/L1ESLL-2018.18.03.03

Vinatier, I., & Morrissette, J. (2015). Les recherches collaboratives: enjeux et perspectives [Collaborative research: Challenges and perspectives]. *Carrefours de l'Education, 39*, 137–170. https://doi.org/10.3917/cdle.039.0137

Vlassis, J., Mancuso, G., & Poncelet, D. (2014). Le rôle des problèmes dans l'enseignement des mathématiques: analyse des croyances d'enseignants du primaire [The role of 25 problems in mathematics education: An analysis of primary teachers' beliefs]. *Les Cahiers des Sciences de l'Education, 36*, 143–175.

Chapter 18
Writing to Understand and Being Understood: Basic Design Principles for Writing Instruction

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18.1 Introduction

18.1.1 Understanding and Being Understood

Language use provides a window on the world and makes it possible to analyze and understand natural and human phenomena without direct observation. We share knowledge about humans and the world through all sorts of texts, including fictional, factual, verbal, and pictorial ones. Language teachers support their students' development of competencies needed to understand these texts and to participate in knowledge production and sharing through texts, regardless of their topics. In other words, language teachers focus on helping students become literate, that is, learn how to read as well as write: "Learning to write makes one a better reader, and writing about material presented in other learning situations enhances comprehension of material read" (Graham, 2018a, p. 308).

Researchers have attempted to get a grip on what writing entails, both from a cognitive perspective (Flower & Hayes, 1981; Bereiter & Scardamalia, 1987; Kellogg, 1999) and from a social perspective on literacy (Perry, 2012). More recently, Graham (2018a) combined elements from both perspectives in the Writer(s) Within Community Model of Writing, in which he proposed how individuals act as writers and how they interact with others who influence them in their wider community, such as co-authors, classmates, readers, and other language users. In a

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revised version of the model, Graham placed greater emphasis on writers' interaction and communication with their readers (Graham, 2018b).

Writing is thus a participatory, communicative act. The writer tries to understand – get a grip on the outside or inside world by writing and reading – and/or tries to be understood by others. In Moffett's terms (1965), communication is constrained by three parameters: I (writer)-You (reader)-It (topic). In expressive writing, the focus is on getting a grip on one's inner world, or even creating an inner world, such as in fiction writing, in which the writer creates relations with fictional characters. In such cases, the sender ("I") creates an expressive "It" and is at the same time the understander ("You") of their own created inner world. By contrast, the focus is on *It*, the external world, when the writer tries to understand, via readings, observations, and experiences how things work in that world. Such a text is driven by self-generated or externally imposed knowledge questions. When the writer wants to share her view with others, or is invited by others to do so, *You*, the reader, comes into focus. The assumption in all cases is that the author wants to understand and be understood, and will invest in the comprehension process, until a certain level of understanding is reached, in line with the way Van den Broek and Helder (2017) define the level of understanding in reading by individuals. Understanding through writing requires an internal level of coherence of understanding – motivation and effort – to be correlated in whoever reads the text, which means putting effort into understanding and into being understood.

At school, young writers share a lot of their writing, mostly with teachers. For multiple subjects, they must demonstrate their understanding of the topic at hand. Each text demonstrates the writer's understanding. But what the teacher-reader takes from the text varies per school subject. Language teachers will focus on helping students learn how to read, write, and guide their readers' understanding of the message they wish to convey. In school subjects other than language and literature, the major focus in reading students' work is on their representation of the subject's content. The focus is on the text's content elements, the real-world phenomena, and whether their relations are correctly represented, not so much or less on the writer's personal stance, voice, and textual elaboration.

Language teachers often report a lack of self-efficacy in teaching reading and writing (Graham, 2019), which is confirmed for Chili (Flores-Ferrés et al., 2022b) as well as for the Netherlands (Rietdijk et al., 2017) . Both studies also indicated that many teachers do not feel well prepared to teach writing, due to a lack of conceptual depth and practical tools. Therefore, they must rely mainly on what textbooks offer them. But it is only partly the quality of textbooks that creates good education: it is mainly the quality of the way teachers transform the textbook's ingredients into engaging lessons and thus effective education. A convincing example is Flores-Ferrés' (2021) qualitative study that shows how differently teachers create lessons using the same national textbook. The level of coherence in the lessons she observed varied a lot. The most coherent and aligned learning units came from teachers who appeared to understand best what writing actually entails. Their deep understanding of writing enabled those teachers to reconstruct the thinking that is hidden below the surface in teaching materials and to adapt those materials

to their own insights and contexts by acting as teachers as redesigners instead of teachers as textbook transmitters.

In our view, such deep understandings are fundamental teacher's beliefs and, therefore, the driving force for lifelong professionalization. The beliefs might be static, with some refinements occurring during teachers' professional career, or dynamic, incorporating other views over time. These beliefs are essential when teachers design lessons and redesign textbook materials. Good teaching requires transforming the available materials before transmitting them to the class. In the next section, we will describe the three basic design principles for effective writing instruction and will propose a developmental pattern for how teachers might move forward in their teaching practice over time.

18.1.2 Professional Development Trajectory

Studies on teachers' effectiveness have shown that teachers develop their repertoire of instructional activities over the years (see Van de Grift, 2010). From these studies, we also know what instructional activities are easier and which are more difficult to acquire (Kyriakides et al. (2009); see also Graham and Rijlaarsdam (2016)). Kyriakides et al. provided results from which we synthesize three developmental phases.

The first instructional practices teachers generally acquire are managing learning time, structuring lessons, applying new knowledge by creating options to practice, and asking questions. Teachers usually acquire these practices in the first 5 years of their teaching career, during which they first learn to apply them with increasing frequency, followed by improved implementation in terms of quality.

The next set of instructional practices teachers develop consists of establishing teacher-student relations, facilitating student-student relations, and developing skills to assess and to provide feedback on students' work.

The last set of practices teachers acquire consists of modeling thinking processes and stimulating students' insight in the goals for activities that is giving students the opportunity to feel ownership of learning programs. In this last phase of professional development, effective teachers demonstrate their ability to differentiate between students for all the instructional activities we mentioned by adapting goals, learning time, and tasks to the levels and needs of groups of learners or individuals. However, only a relatively small sample of teachers tend to show signs of having attained this third phase of effective teaching (Van de Grift et al., 2011; Maulana et al., 2015).

Given this pattern of professional development, it is unrealistic to expect that all language teachers can effectively execute the three design principles of writing lessons that we will present in the next section. They vary in complexity along two dimensions. Dimension 1 is the dimension we just presented in this section: the progression in terms of professional growth in instructional activities, from managing task activities in whole classroom settings via modeling processes to adapt

learning activities to individuals. Dimension 2 is in terms of the depth of pedagogical content knowledge of teachers that form the basis of the instructional design, the condition for effective instruction.

18.2 Instructional Design: Three Phases of Increasing Complexity

The first phase of professional development focuses on establishing the most essential component of writing: a writer writes with the aim to be understood. In this first phase, teachers start to apply Design Principle 1 (DP1): Initiate communication and metacommunication. This requires designing tasks that engage students in authentic simulated communication by producing and reading texts, as well as in subsequent metacommunicative tasks. In curricular terms, teachers thus learn to adhere to the *communicative task paradigm*. When teachers design lessons according to this first principle, students will practice writing quite often, will experience and understand the function of writing, and will develop audience awareness when they receive feedback from their readers.

In phase 2, when teachers further develop the instructional activities needed to apply DP1, they may find room to teach writing strategies. In doing so, teachers move from pure communicative writing tasks to the *procedural paradigm*, which requires *demonstrating* – not telling – procedural approaches how to compose a text. They can do this by implementing Design Principle 2: Demonstrate procedures in action, which includes modeling and other forms of independent learning.

Finally, in phase 3, once teachers become even more experienced, they will gain insight in the differences between students and the way they approach tasks. As a result, more room will appear for them to move into the *conditional paradigm*. The key feature of this paradigm is Design Principle 3: Differentiate in practice. Then teachers will not only demonstrate a procedure as in phase 2 but will be able to demonstrate multiple procedures for their students and will provide information about which procedure works best in which situation and for which learner. As a result, students will build knowledge on how to process tasks in different circumstances.

Overall, we propose that teachers first have to learn how to initiate communication through writing (DP 1: Initiate) during phase 1, before they can demonstrate effectively how students can do this (DP 2: Demonstrate) in phase 2, and finally differentiate to meet variations in students' learning preferences (DP 3: Differentiate) in phase 3. Next, we will describe each of these three developmental phases in more detail and illustrate them using examples from earlier research.

18.2.1 *Phase 1: The Simple Theory of Writing Education: Write, Read, and Communicate*

Do and Reflect

A classroom is full of language users, who are both writers and readers. Students bring three roles with them when they are in the writing class: *Writer*, they write to solve a communicative problem; *Reader*, they read classmates' texts and estimate whether the rhetorical goal has been reached; and *Learner*, they are at school to improve their writing, to extend their repertoire of rhetorical functions in different contexts and increase their verbal ability. The goal of writing education is to teach students how to connect these three roles. Teachers can do this by applying the first design principle: Initiate communication and metacommunication. This principle can be applied in two parts (Fig. 18.1). First, *initiate communication*, that is, the process of understanding and being understood. Students must experience to what extent the text functions rhetorically. Second, *initiate metacommunicative tasks*. Students must learn to communicate about how texts work, in terms of rhetorical goals, means, and effects.

Principle 1 Part A – Initiate communication by establishing the writer-reader connection *If students learn to write texts to be understood, then they must also learn how texts are received.*

The application of Design Principle 1 (DP1A) occurs through *deliberate practice*. Students regularly practice reading and writing as communicative acts. They use language with a *purpose*. Thus, if we provide writing tasks, the written texts must be shared and read in class; student writers should experience that their texts are actually read, that is, they must *experience* their texts' communicative function. The pleasant thing in language education is that students can write texts of any length from a young age. Their texts will not be perfect, will not adhere exactly to genre principles, or be optimally communicatively effective, but students can produce texts which are intended to be understood. The teacher shapes the context, for instance, an argumentative context, after which students attempt to write texts that intend to persuade their readers.

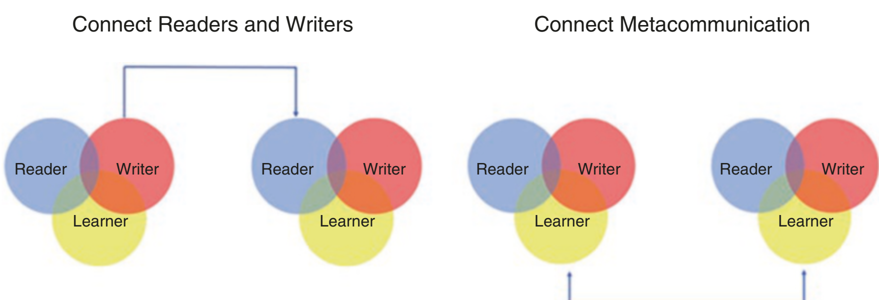

Fig. 18.1 Connect students' roles in writing lessons

There is not much that a teacher-designer needs to implement DP1A: a writing task that motivates students to communicate, combined with a complementary task that ensures that those texts are read. The students experience *communication in action* when they have access to the reading response of at least one or preferably multiple readers. Thus, one student reads and tries to understand the message, while the writer notices whether the reader has understood by observing their peers, during the reading process, and/or by reading their readers' written reaction to their texts. Multiple readers per text have the advantage that writers learn that interpretations and evaluations may vary, which is natural in communication, and that readers experience multiple solutions for similar rhetorical issues.

This simple setup has been tried and tested in many different classroom settings and in different school subjects. For example, Michel Couzijn (1995) applied the principle in high school classes where students had to observe a brief physics experiment, write an instruction based on what they had seen, and then observe peers who did not attend the demonstration trying to repeat the experiment based on their written instructions. This enables students to see, first-hand, how successful their instructions were, which can motivate them to revise their texts (Rijlaarsdam et al., 2006, 2008). This type of lessons has been developed and tested from mid-primary school (10 years old) to first year university level.

Similar lessons were designed for upper primary education. Students learned to write texts in different genres. The first lesson of a genre was to experience a genre's rhetorical function. In each case, students were asked to write something that resembled the target text without much instruction and then observed how readers responded to their texts. This made them aware of the communicative effect of their texts, what worked, and what did not work. For instance, after writing a description of an object, student writers were asked to observe readers (peers or the teacher) attempting to identify the described object (e.g., a shoe) among similar objects. While a reader tried to identify the object, students would experience that their text did not steer the reader's mind and actions in the right direction: the communicative goal had not or only partially been met. Through this experience, a need for explicit instruction in the genre was created, and students became motivated to learn about it (Rietdijk et al., 2017, 2018).

Principle 1 Part B – Initiating metacommunication *Once students have been involved in the communication process, they can communicate about these texts in terms of intentions, means, and rhetorical effects.*

The application of Design Principle 1B (DP1B) occurs as a result of a *reprocessing practice*, in which students create rhetorical and linguistic knowledge via reflection, observation, and evaluation of produced texts and prior experiences. This mirrors how students learn from language use in their daily lives: they produce language for a purpose, notice the effect of their output by observing the receiver's response, and then may adjust their language production when the response is not what was expected. At school, this learning process can be emphasized and magnified. Communicating about texts is typically an activity in the language classroom, which does not occur often in other school subjects.

The metacommunicative activity can vary from implicit to explicit in nature. The essential question is whether or to what extent the text has reached its communicative goal. Readers must show their understanding of the text. Is it a description of a lost shoe? Then the reader must find that shoe in a pile of shoes at the front of the class. Is it an instructive text? Then readers show the writer how they struggle when they follow the instructions and the writer observes where readers get stuck, and then must "theorize" why it is that readers got stuck in that passage. Is it an expository text on how volcanoes work, then readers show their understanding by producing a cause-and-effect scheme. In these examples, the metacommunicative activity is rather implicit: the reader acts as reader, not so much in a metacognitive role. But as soon as writers observe the reading process or the effect it has, writers move from the writer's role into a learner's role by noticing, observing, and evaluating the reader's response.

The metacommunicative activity can become more explicit when readers are placed in a somewhat more evaluative role. For example, a lesson unit for writing persuasive texts divided students in the class into two groups, each with different roles. First, all students in the class wrote a persuasive text, in which they had to convince the Yummy Yummy candy bar company that they should send them the cinema tickets that were offered after collecting ten candy bar wrappers with tokens on them. Subsequently, students were split into a board of four candy bar company directors and groups of "researchers." The board members compared groups of eight texts and chose two authors who would receive the cinema tickets. Meanwhile, the researchers observed the board's discussion and made a list of the criteria and arguments the board used to make their choice. In the next lesson, the researchers presented their findings to the whole class. As a result, students noticed that they could improve their own texts by revising or rewriting their texts and were given the chance to apply the knowledge that they picked up through their observations. During the final lesson, both groups significantly revised their texts, but the research group ("the observers") outperformed the board members in terms of text quality (see Amir et al. (2021) for more details).

This Yummy Yummy example shows a playful design in which readers evaluate texts when the candy bar factory board members read texts with a clear *goal*. It is an operationalization of the feedback phase during a writing task: produce a text and then check to what extent the text fulfils its goal: *Bring your text to the test.* This is also what happens in professional communication companies that test websites, pamphlets, or brochures during pretests with an audience (readers) to obtain indications about their effects. Such "reader tests" are more reader-oriented and communication-oriented than all kinds of rubrics and evoke richer metacommunication between readers and writers (Rijlaarsdam et al., 2009; Rietdijk et al., 2017).

A teacher designing and performing writing lessons in phase 1, by applying the simple theory of teaching writing, designs lessons to initiate new learning contents (new rhetorical functions), organizes natural feedback situations (DP1A), and offers metacommunicative learning activities in which students discuss and learn from comparing texts' effects (DP1B). This enables students to gain insight in what a text does with a reader, as well as some insight in the relation between text features and

comprehension and acceptability processes. In most designs, students will receive all kinds of scaffolding to write the text, as teachers will, for instance, break down the process in stages (generate-organize-write-revise). However, the simple theory of writing does not provide students with knowledge about the writing process, at least not more than is achieved through self-initiated reflection. Therefore, the next element that can be added to a design is to emphasize what we know about writing processes and procedures to handle the complex task and to break down the complexity into a series of steps.

18.2.2 Phase 2: Writing Processes: Procedural Knowledge in Action

Observe and Reflect

This phase focuses on teaching explicit procedural knowledge: knowledge about how to perform the task. Textbooks guide students with lists of steps and scaffolds, mostly in verbal form. For the instructive text that we discussed earlier in this chapter, the textbook might provide students with several pieces of advice: first, list the steps of the procedure, mark these steps clearly, and then include precautions and checkpoints that the user of the manual can apply to see whether she is on track, such as the following:

> Once you have pasted the plaster on the bicycle tire's inner tube, inflate the tube to check whether there are other leaks, before folding the inner tube into the outer tube.

The required learning activities are then that students must read and understand the guidance in the textbook and then apply the new and not yet experienced knowledge in another writing task.

This is a quite ineffective instructional activity. You can learn to fix the tire on a bicycle by looking at a manual, but you will learn faster with less effort by actually watching someone fix a tire while thinking aloud. The same principle holds for learning to write: if it is possible to observe writers who share their thinking when applying the strategy during text production, you will learn more effectively than by reading the task and even more than when applying the procedure yourself for the first time. What you see is the procedural knowledge in practice, not just in verbal form, as in a guide. The issue with applying a guide with actions what to do in writing a new text is that the student has a dual learning agenda: accomplishing the writing task, which requires much cognitive effort, and implementing the guide (verbalization of a strategy). Only strong learners can deal with such a dual agenda (Rijlaarsdam & Couzijn, 2000). Studies that compared the effect of written guides with modeling shows that for complex cognitive activities in writing instruction, modeling is more effective (Casado-Ledesma et al., 2021; Mateos et al., 2020).

Therefore, when designing writing lessons in which students gain access to *procedural knowledge in action*, teachers should apply Design Principle 2: Demonstrate how to write! (You may replace "write" by all possible subprocesses! How to

generate! How to revise! How to choose rhetorical strategies, formulations! This can be done in multiple ways, but we recommend at least two options: (1) demonstrating by modeling strategies and (2) demonstrating by observing writers in action.

Option 1: Demonstrating by modeling A teacher models the process of implementing a strategy (how to write an instructional text, where to start with, etc.) live in class, by thinking about the communicative situation, the steps, writing sentences and paragraphs aloud, checking whether the reader will understand the steps, revise, delete, insert, elaborate, moving back and forth, etc. Learners can benefit from observing a perfect model who performs the task most effectively or a model who is still learning during the task performance (Zimmerman & Kitsantas, 2002). The model may also show affective elements of the writing process such as persistence, motivation, joy in writing, and/or self-efficacy. Nowadays, some textbooks provide teachers with scripts for how to model such processes (see, for example, Rietdijk et al. (2018)).

Option 2: Observing writers in action A teacher can provide learners access to processes in action. This can be done, for example, by implementing reciprocal learning, invented and tested by Brown and Palincsar (1987) for reading and implemented in writing lessons by Lopez et al. (2017). In such cases, practicing a composing strategy is done in pairs: one student tries to apply the strategy that was modeled by the teacher or scripted in the textbook, while the other student monitors how the peer works with the strategy and can ask questions, direct, provide feedback, etc. This is another example of role theory being applied: in this case, the learner's two roles – applying and monitoring – are carried out by two students, with separate roles.

A teacher can also show students videos of learners thinking aloud when applying the strategy, with or without screen films that show the emerging text as it appears. Nowadays, some teachers also create videos (Van Ockenburg, February 2, 2019, https://youtu.be/Y_Q-7s_aTcA). Learning by observing such animations requires students to contrast and compare them (e.g., process shown in video vs. own process, two videos with different approaches, weak vs. strong approach), which has proven to be an effective learning activity (Braaksma et al., 2002; Rijlaarsdam et al., 2012). Comparing and contrasting are analytic, reflective actions, which lead to procedural knowledge.

18.2.3 Phase 3: Adapting to Differences: Conditional Knowledge in Action

Choose and Reflect

The way students compose a text varies greatly and varies over tasks. In extremis, some students cannot write before they know what they have to say: they need quite

some preparation time and/or must make notes or schemes before they can start writing. Other students cannot think about what they have to say before the act of writing: they need to produce text to be able to invent what they have to say. Research has shown that adapting learning paths to these extremes is effective (Kieft et al., 2006, 2007, 2008). Providing students with learning paths to choose from enables them to explore what suits them best and is also an effective instruction strategy (Van Ockenburg et al., 2021, 2023). However, these individual tendencies to approach a writing task are not fixed: students can vary their approaches per task, depending on how interested they are in the topic or how much they already know about it (Van Steendam et al., 2022).

Teachers will become aware in a certain phase during their professional development that task approaches can differ in their classes and must adjust instruction on procedural knowledge to individual differences. They can do so by applying Design Principle 3: Differentiate writing instruction to meet students' individual needs. The required knowledge about conditions for the implementation procedures grows as teachers become more experienced over the years, by having observed many students at work and having listened to their experiences, obstacles, and solutions. When teachers provide students with *choices for procedural paths, and ask students to reflect on their choices*, they induce metacognitive awareness or conditional knowledge. Subsequently, students begin to realize what works best for them and under which conditions.

18.3 Instructional Designs: Examples from Practices

In this section, we will provide six examples of writing instruction from practice. Two examples are teachers' authentic practices, based on two case studies from Chile, from Grades 7 and 8 of public schools (Flores-Ferrés et al., 2022a). The other four were designed and tested by teacher-researchers in the Innovative Language Education Lab of the University of Amsterdam. Their designs are based on design principles distilled from the most recent insights in strategy instruction available at the time. Then these designs were trialed and tested to determine their effects in practice. Two designs were tested in Dutch language classes: creative writing (Ten Peze et al., 2022) and synthesis writing (Van Ockenburg et al., 2021, 2023). The other two designs aimed to improve texts in other subjects than language classes: synthesis writing in the science orientation curriculum (Alkema et al., 2021) and responses to evaluative questions in the history curriculum (Holdinga et al., 2022).

The examples represent various genres: expressive writing, argumentative writing (book review), creative fiction writing, and synthesis writing. Three of the examples focus on synthesis writing, as a curricular response to the changes in modern media, which has caused sources of information to become more numerous and more readily accessible. One of the greatest challenges educators currently face is teaching students how to find reliable sources and then analyze and process them. The synthesis writing task is a task in which all these skills come together.

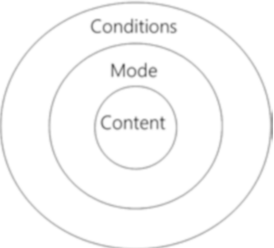

Fig. 18.2 Three embedded components for describing instructional designs

To facilitate comparison between these examples, we use a model by Ten Peze et al. (2022) adapted from Schacter et al.'s (2006) creative teaching framework. The model's core is the learning content – what must be learned, embedded in the mode – and how to learn it, which is in turn embedded in the intervention's learning conditions (Fig. 18.2).

We present examples according to the three developmental phases we presented in Sect. 18.2, with two examples per phase to demonstrate the possible variation within each phase. For phase 1, in which teachers implement a form of the simple theory of writing, we will discuss the two Chilean practices by Joanna and Margarita in terms of DP1; they are both task-based designs, both inspired by the same theme of the national curriculum, but rather different in aims, purpose, and audience. For phase 2, in which Dutch teacher-researchers apply DP2 (Demonstrate), we will discuss examples related to the procedural paradigm, about creative writing in the language curriculum (Anouk) and synthesis writing in a discipline (Edith). Finally, for phase 3, we will discuss two examples on synthesis writing in which teachers attempt to apply DP 3 (Differentiate) within the conditional paradigm in language lessons (Liselore) and in history lessons (Lieke).

18.3.1 Design Phase 1: Margarita and Joanna

In this section, we provide two examples from Chilean teaching practice, based on a multiple case study that aimed to gain insight into how teachers deal with the Chilean poly-paradigmatic intended curriculum for writing education (Flores-Ferrés et al., 2022a). Findings revealed that two out of the five teachers under study – Joanna and Margarita – each articulated various paradigms from the intended curriculum into one coherent writing unit. Joanna was teaching Spanish in Grade 7 and Margarita in Grade 8. Both teachers worked in Santiago, the capital of Chile, which is the densest populated city in a highly centralized country. In both cases, the school's intended curriculum aimed to prepare students to pursue higher education. Both schools were successful in this regard: In 2020, both were among the 30 best-ranked public schools in the national test for university entrance that students need to pass to enter higher education ("Revisa los rankings…", 2020). Additionally, both Joanna and Margarita had a high number of students in their classes: 40 for Joanna and 45 for Margarita.

Next, we will describe Joanna's and Margarita's instructional design and will compare and contrast them based on the components shown in Fig. 18.2: content, mode, and condition. Both teachers designed the learning units themselves and brought their self-designed resources to the class. In the case of Margarita, these resources were complementary to the instructional sequence provided by the national textbook for Grade 8. Both units focused on stereotypes and prejudices, a content that was delivered by the national textbook for that period of the academic year for both Grades 7 and 8.

Margarita: Learning to Write a Book Review
In Margarita's lessons, students wrote a book review on a drama piece. Students read the drama and answered questions about the text provided by the textbook, focusing on the theme of stereotypes and prejudices. Margarita then added components one by one (episodes 2 and 3) toward an integrative, whole task, the book review (episode 3). Students explored the genre characteristics and the linguistic devices to prepare for that writing task and shared their written texts (episode 4) (Fig. 18.3). The task set did not contain a reference to an audience for the text.

Joanna: Expressing Your Experiences
In Joanna's lessons, students wrote a personal story based on their experiences of stereotypes and prejudices. This task was preceded by and open oral whole class conversation to explore the theme and personal experiences and information about the structure of the narrative and stepwise guidance during the final task (Fig. 18.4).

18.3.1.1 Comparative Analysis

Learning Content
In both cases, *promoting students' understanding and critical thinking of sociocultural content* is the essential learning content, next to the *acquisition of genre knowledge*. Both designs focused on understanding the concept of stereotypes and prejudices, in alignment with the national curriculum of the subject Spanish for Grades 7 and 8 and to genre acquisition, narrative (Joanna), and book review (Margarita). The relation between these two content learning goals was different: in Margarita's practice, the focus was using the content of a metalinguistic aim, learning to write a specific genre, the book review about a literary text that dealt with the theme stereotypes; in Joanna's practice, the focus was on expressing personal experiences and considerations on the theme stereotypes.

A consequence of this difference in priority of content goals is that in Margarita's unit, the content of writing is somewhat fixed, as the literary text is the point of departure, to be used to fulfil the genre acquisition goal. Students must position themselves as book reviewers. In Joanna's unit, however, the content of writing is personal and subjective, within the theme of stereotypes and prejudices, with students positioning themselves as authors of genuine experiences.

This difference in prioritizing goals also appears in the attention paid to genre knowledge. Joanna provided students with the macro-textual structures of the

Episode 1	Episode 2	Episode 3	Episode 4
Theme: Stereotypes and prejudices	Book review structure and coherence	Cohesion devices	Peer feedback with given rubric
Activation of students´ reading experiences, having read a literary piece on the theme	Teacher explains concept	Teacher explains concept	Students provide feedback in pairs
	Teacher demonstrates (using an authentic student text)	Teacher demonstrates	
	Students´ apply	Students apply: write first draft	Students apply learning content; genre coherence, cohesion
Activation	Instruction	Instruction	Application

Fig. 18.3 Writing a book review in the language curriculum by Margarita

narrative genre via direct instruction when the writing task was introduced, to support students' expressive writing. Margarita identified and promoted students' understanding of genre characteristics. She provided definitions and explanations of linguistic concepts such as coherence and cohesion. For the macro-textual structure, Margarita projected a text example which had been previously written by one of the class' pupils via power point slides. For the micro-linguistic features, she provided oral examples and a rubric to support students' revision of their texts, focusing on the learning content taught in this unit.

Learning Mode

The differences between the two views on writing in these two teachers' practices are also visible in the mode of learning. What these practices share is that purposes for writing are stated – personal expressive versus academic book review – but the audience is not made explicit.

What they also share is a structured set of instructional episodes, well aligned, working toward a text that is written in episode 3.

Both units prepare the writing tasks with *a language activity in a different modality*, as content generating activity; writing a text is writing as an informed author. In Joanna's unit, the chosen mode is whole class *explorative oral communicative*

Episode 1	Episode 2	Episode 3	Episode 4
Stereotypes and prejudices	Explore	Write	Write
Brief definition of the key socio-cultural concepts:	Oral explorative whole classroom discussion, activating students´ personal experiences regarding the them	Introduction writing task: persona story about conflict related to stereotypes or prejudices Activating knowledge (former episodes)	Presenting genre Writing in stages: drafting and rewriting based on teacher´s feedback individual support during drafting
Concep-tualization	Pre-writing	Pre-writing	Writing

Fig. 18.4 Writing a personal interpretative narrative in the language curriculum by Joanna

activity, while in Margarita's unit, it is *reading and critical interpreting* a literary text that presented stereotypes, especially gender stereotypes, with subsequent questions for students to reflect critically on the stereotypes in the text.

In both units, the writing task is supported with genre knowledge. In alignment with the teaching goals, this support is prominent and extensive in Margarita's unit, while Joanna only spent about 10–15 minutes showing some slides on the structure of a narrative. In addition, Margarita included more learning activities to guide students' awareness of the linguistic ingredients of a book review. She presented the text structure and the concept of coherence via direct instruction. Later she presented micro-linguistic information about cohesion. Finally, in the peer feedback phase, she instructed students to focus on cohesion and discourse markers.

Sharing texts happened in both units, but with different functions. In Margarita's practice, students were asked to provide feedback before a revision phase, using a predefined rubric, which included the linguistic items that were taught in this unit. In Joanna's unit, by contrast, students shared their texts only when they wrote in pairs.

Learning Conditions

In both units, the teachers *adapted the national curriculum to the specific interests and needs of their students* (Flores-Ferrés, 2021). However, the views on these

interest and needs were different for both teachers and shaped by contextual factors. Joanna, for instance, described her students as being very critical toward the system, politically active and rebellious. She therefore focused on engaging students, by listening to their interests and needs. As a result, it is essential for Joanna to provide room for students' personal expression. During her lessons, she is an authentic listener to students' experiences in the whole class exploratory discussion on stereotypes and prejudices, encouraging them to express their experiences, thoughts, and emotions, in a respectful environment in which no contributions were judged. And while students wrote, Joanna moved desk-by-desk providing feedback from the reader's perspective: "Please stop at this point; you want me to want to read it, get it? You want to leave me in suspense."

Margarita defined her students as ambitious and interested in obtaining the best grades. Students demanded a high pace of learning activities and scaffolding as much as possible to realize the best possible learning outcomes or grades to enter university. Hence, Margarita sees her writing course as a course in preparatory, academic writing and presents herself as source of genre knowledge.

18.3.1.2 Critical Analysis of Margarita's and Joanna's Designs

Margarita: Writing a Book Review

We situate Margarita's practice in Design Phase 1, as an effectively aligned series of learning activities, which prepare for a final task. The lessons aimed at critically understanding a certain literary text, in relation to the sociocultural theme "stereotypes and prejudices" that plays a role in that text. Students must show their understanding via a book review, written for their teacher. Here, the act of writing serves the process of understanding the sociocultural theme, with a strong focus on the connection between "It," the sociocultural theme, and an undefined reader ("You"). The writing task is not meant to be communicative but is instead a vehicle for understanding "It," the sociocultural theme.

However, it might be that understanding of the sociocultural concept is not the main learning aim, but rather the understanding of macro-linguistic knowledge (genre knowledge, the construct of coherence, cohesive devices). Therefore, the structure of the book review is taught in this class, with several learning activities, one of which is the discussion of an authentic student text in a pre-flection phase. The text serves as an illustration of the genre requirements the teacher instructs, but at the same time, while the text is authentic, students are not placed in an authentic reader role, but in a metacommunicative one.

Learning about texts seems to be the dominant driving force for these lessons: teaching academic writing skills and genre knowledge. Learning to write in these lessons is basically learning to apply rhetorical knowledge. This position is illustrated when the teacher promotes students' learning *about* their texts: This is not about discussing the texts that were written but about applying new knowledge in an evaluation task. When the teacher instructs the students to exchange their texts and provide feedback to each other, she presents linguistic content related to the

discursive genre: the book review. Specifically, the linguistic content is about coherence (the previous lesson) and cohesion. With this feedback task, students do not aim to read the text as a contribution to the discourse about the book that is reviewed or to the literary text. Students are placed in the role of evaluators of certain textual qualities. In doing so, they fulfil a teacher's role instead of a reader's role. No signs of the procedural or conditional design principles were observed.

What this practice shows is a well-organized series of learning activities in the perspective of academic genre-based writing, without writing with a communicative function, and with a focus on metacognitive knowledge about a specific genre.

Joanna: Writing a Personal Story and Writing to Understand

We consider Joanna's practice as representing Design Phase 1: write-read-communicate. It is guided by DP 1 (initiate communication): students use language with a *purpose* – explorative oral communication about a sociocultural phenomenon and writing for understanding and to express themselves. The understanding concerns sociocultural concepts, from a critical perspective, relating the concept to personal experiences, by sharing experiences and expressive, explorative writing. Here, the act of writing serves the process of understanding, with a strong focus on the connection between the student ("I") and the phenomenon ("It"). The reader ("You") is the student herself: they write mostly for their own understanding.

Formally, metacommunicative activities and procedural and conditional knowledge in action are not part of this practice. The writing process is broken down in phases, such as generating ideas, drafting, etc., but procedures regarding how to write such a personal narrative are not taught. Yet, the lessons did show glimpses of the teacher's application of procedural and conditional knowledge when she supports individual students. She offers different strategies, for instance, when a student is blocked, responding to their unique needs.

What we see here, in these lessons, is a well-balanced and aligned series of learning activities related to deliberate practice, which is a Phase 1 Design, without metacommunicative tasks.

18.3.2 Design Phase 2: Anouk and Edith

Anouk's Design

Anouk, a Dutch teacher-researcher, designed and tested a unit on creative writing for 15–16-year-old students who were unfamiliar with creative writing. Figure 18.5 shows the structure of the unit. Lessons 2–5 form the heart of the unit, in which students practiced the key strategy of divergent thinking in each lesson, drafted a short story applying a new narrative textual element, and shared their written texts with peer "authors." Lesson 1 placed the unit in a metacognitive perspective on what the concept of creativity entails and introduced and practiced divergent thinking, while lesson 6 is an integration lesson.

Edith's Design

Edith, a Dutch teacher-researcher, designed and tested a unit for Grade 10 science orientation classes to teach students how to write synthesis texts (Fig. 18.6). In the core of the unit (lessons 4–6), students carried out a strategy-oriented pattern of learning activities to become acquainted with three basic task strategies: selecting information from contrasting sources, organizing this information in a logical way, and connecting this information in prose. Lessons 3–5 resulted in elements that students could use in lesson 6, in which they wrote a synthesis text based on the sources that were introduced in lesson 4. Lessons 1–3 were "pre-flection" lessons, in which students built up a task representation of the text quality dimensions and the task processes. Lesson 7 provided students with the opportunity to transfer the strategies learned to a new synthesis task based on contrasting sources.

18.3.2.1 Comparative Analysis

Learning Content

Both units aim to help students develop strategies to tackle writing tasks: divergent thinking in creative writing (Anouk) and selecting, organizing information, and connecting information critically in synthesis tasks (Edith). In both units, understanding and being understood govern the learning activities. Readers must understand the fictitious worlds presented in creative texts (Anouk) and the source-based text without any prior knowledge of the sources (Edith). While Edith's design focuses on learning about science orientation as a discipline, her design explicitly stimulates students to improve their texts' coherence (Van den Broek & Helder, 2017) to fully understand the source information before text production can start.

Fig. 18.5 Creative writing in the language curriculum by Anouk Ten Peze

In addition to a creative process strategy, Anouk added learning content about narrative strategies: each lesson (2, 3, 4, 5) introduced a new element, such as dialogue, tension building, narrative elements crucial to the plot, and perspective.

Learning Mode

Strategy Instruction

Both units applied strategy-oriented instruction sequences to teach writing texts in a cumulative way, embedded in pre-flection and transfer tasks.

Both designs contained a fixed set of learning activities. For creative writing, compare and contrast example texts or writing processes, generate ideas through divergent thinking, select by convergent thinking, and apply new knowledge, followed by evaluation. Each series of activities was aligned to the target task of that lesson (Baer, 2013; Beghetto & Kaufman, 2014). The choice of the two creative thinking strategies was based on the Geneplore model (Finke et al., 1992). In this model, two sets of processes constantly interact: generative processes, which create ideas, and exploratory processes, which investigate, elaborate, and test those ideas.

In Edith's design for synthesis writing, the set of learning activities used in lessons 4 and 5 were direct instruction, compare and contrast, observation and evaluation, and practice. Collaboration in the form of pair work, followed by a short whole class sharing activity and discussion, was also planned in each lesson.

Modeling

Both designs followed Design Principle 2 (Demonstrate) and provided learners' access to processes by demonstration and application. In Anouk's design, students compared and contrasted strong and weak examples of mind maps and short videos in which peer models wrote a creative text. They shared their findings with each other in small groups, followed by a teacher-led whole class discussion. Application

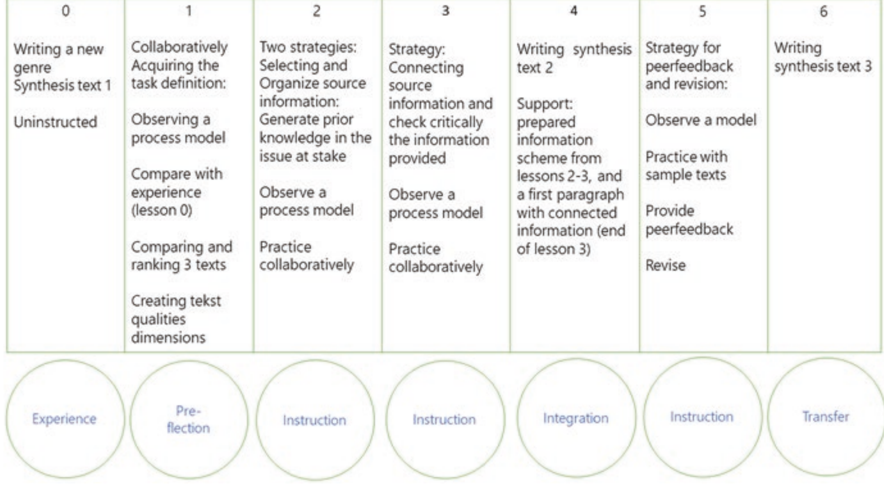

Fig. 18.6 Synthesis writing in science orientation classes by Edith Alkema

followed, by having students draft their stories for 20 of the 50 minutes of class time. To end the lesson, students read or listened to each other's stories in their peer groups. Each story was provided with various forms of feedback, applying learner's dialogues and peer feedback during this phase. Most feedback was written on post-it notes, but students also consulted each other on the stories and on the feedback given and received in open dialogues about their creative stories (Davies et al., 2012).

Edith applied principle 2 as well, by offering various short video clips in which she demonstrated a crucial part of a strategy (observational learning) and provided opportunities to practice that strategy, mostly in collaborative pair work, followed by a teacher-led whole class discussion.

The Reader-Writer Connection

The writer-reader connection is one of the fundamental principles of the creative writing unit and was used to establish a learning environment conducive to creativity. For all five lessons (2–6), the unit created a writer-reader community: all texts written in class were read in small groups and feedback was shared. It is not only important for students to evaluate and discuss their own work with others in writing instruction but also for creative thinking in general (Cropley, 1995). Moreover, feedback is essential for the creative process (Beghetto & Kaufman, 2014). Therefore, feedback was provided on each text and briefly discussed, in line with DP 1B: initiate metacommunication. Students provided recommendations and compliments regarding each other's stories and discussed what makes a story creative and how to improve their stories.

In Edith design, the reader-writer relation was planned in lessons 1 and 5. In lesson 2, students compared and ranked three texts in small groups, which were written by anonymous peers on a similar task that they had fulfilled in lesson 1. Here students were put in a metacommunicative role (DP1B) and students provided feedback on each other's texts in lesson 5.

Task Representation

To emphasize the relevance of strategy training, both designs started with a task representation activity, a whole task experience, in which students wrote a target task without instructions. In Anouk's design, this was followed by a lesson meant to encourage students' intrinsic motivation and affective attitude to writing. The first lesson was a metacognitive lesson in which students learned that creative thinking is a valuable process that can be learned. To build a knowledge base, the teacher explained the nature of creativity, the difference between divergent and convergent thinking, and the different notions of creativity: from mini-c to big-C (Beghetto & Kaufman, 2007). Students explored their own ideas about creativity in a group and compared them to others after which they performed a short divergent group exercise.

In Edith's design, students explored the text quality dimension for synthesis texts in lesson 2 by ranking three texts in small groups and then listing the quality dimension that could explain the ranking, followed by a teacher-led whole class discussion. Students also observed a model in a video, who demonstrated how she went

through the main phases of the process of selecting, organizing, and connecting information from the sources with her own knowledge while thinking aloud.

Learning Conditions

Typical learning content for writing a fictional text requires imagination. The author's relationship to the reference object ("It") is different than in an expository or argumentative text. In an expository text, authors share the world they are writing about with their readers. The external world is represented internally in the writer and then represented in a text, and the reader recreates the world in the text and then uses the knowledge about the external world. In a fiction text, however, authors *create* an internal world in interaction with the writing process (Doyle, 1998). This internal world is then represented in a text, and the reader must recreate this world, using the knowledge of the internal world and the knowledge about the genre of fiction. Most important in writing fiction is that the author is engaged in the creation of the internal world. Therefore, Anouk's unit provided *opportunities for choice and discovery*. Students could choose between parallel assignments, which were all open-ended, as is the nature of creative tasks, and which provided them with some freedom.

In Edith's unit, students' motivation was stimulated by the choice of topics for the writing task in lessons 1, 5, and 6. They were all topics about current issues in society and the news, backed up with sources that represented scientific, contrasting perspectives. As this was the first time that this age group was confronted with synthesis writing, the complexity of the tasks should not be too high. Reading source materials from paper and processing information on paper (underlining, adding comments) was expected to be less demanding, as was writing the text on the computer.

Finally, to optimize time-on-task, a strict pacing of learning activities was adhered to in both designs.

18.3.2.2 Critical Analysis

Creative Writing (Anouk)

The design clearly implements DP 1A that we presented in the introduction: initiate communication. The learning unit encourages students to write from their authentic experiences of texts. In addition, it creates a community of learners in which writers communicate with their readers and vice versa. Students also write for an authentic audience, "classmates in their roles of writing lab members," and could choose between different tasks. The readers then read those texts, which were written based on prompts that were unknown to them, which enhanced authentic reading. The focus in the writing tasks is on "I," the authors, exploring their imagination with the help of divergent generating strategies.

The lesson series also implements Principle 1B to a certain extent: initiate meta-communication. Readers provide writers with authentic feedback, via written advice on post-it notes. They act as peer authors, in responding and advisory roles, which

points to principle 1B. The feedback session also includes conversation between authors and readers, which creates talk about texts and relations between text features and responses, which is typical for principle 1B.

This design also provides students with a strategy to deal with creative tasks, and therefore, it moves to phase 2. It provides students with procedural knowledge: creative thinking strategies. It implements a procedural approach for all students, presenting a fixed series of learning activities for the cognitive strategy instruction, especially focusing on divergent thinking, a key for creative processes. So, the design provides students with a procedure and trains this procedure repeatedly. Modeling is present in this unit once: students observe processes of a weaker and stronger student-author in a video clip. However, students are given relatively few chances to see and hear this procedure in action (they observe two videos during one lesson). But overall, this design does not *demonstrate* much procedural knowledge, as characterized by Design Principle 2 (Demonstrate). Instead, the design provides students with many opportunities to practice the strategy, especially the divergent thinking processes, in all lessons.

Therefore, we conclude that this design is on the threshold between Design Phases 1 and 2, closer to 2 than to 1. It offers structured, well-designed tasks to practice all kinds of generating strategies. The lessons require good classroom management to pace the learning activities (characteristic for Design Phase 1), with much freedom for students (topic and subtask choices). Teachers may use the videos for modeling and do not need to model processes themselves (DP2). This means that teachers can teach and design such lessons effectively when they have completed their first professional learning cycle. However, note that the metacognitive instruction lesson requires theoretical and practical insight in creativity and creative processes. Textbooks may provide materials for such lessons. However, it is the teacher's understanding of those materials and their ability to transform and adapt them to their students' level.

Writing for Understanding Issues in Science Orientation Classes (Edith)

We classify this Design as a Phase 2 Design. It is aimed at promoting students' acquisition of synthesis writing skills, to promote their understanding of issues in science that are relevant to understanding current societal issues, and to be understood when communicating their stance on such issues. To do so, students must learn to read conflicting sources carefully, organize the information, take a critical stance by retrieving prior knowledge on the topic, and then write. The intervention teaches procedural knowledge on each of the subskills, showing students the procedures for each of the critical phases in the process by modeling, which are clearly indications of a Phase 2 Design. Students must understand the issues ("It"), write to be understood ("You"), and relate their knowledge about the issue to the source information ("I").

The Design also includes elements from Design Phase 1: Students' own experience of the tasks/the texts is considered as a basis for learning. Students' own experience is considered necessary when they write an uninstructed synthesis task and reflect on this text and their experience when prompted to compare the experience

and insight with other texts. It is not so much "reading texts for understanding," what students are expected to do, but evaluating peers' texts against a rubric that was introduced and trained in the pre-flection phase. The "reader" of the text is not the authentic reader reading for comprehension.

The Design includes other elements that refer to Design Phase 2 as well. In several instances, the teacher clearly shows procedural knowledge in action for strategies that are included in the design via recorded slide presentations which demonstrate how to read and comprehend sources, select information, organize the information, and then write step-by-step.

It is unlikely to observe such a lesson design in subject teachers' practice, as it requires insight in the subprocesses of such a reading-writing-thinking task and the courage and insight to demonstrate specific task processes: procedural knowledge in action. This insight must be acquired during teacher training, in which trainees also see how teacher educators use modeling activities in instruction and provide students with observation tasks to gain insight in writing and reading processes.

18.3.3 Design Phase 3: Liselore and Lieke

Liselore's Design

Liselore, a Dutch teacher-researcher, designed and tested a learning unit for the language curriculum, aimed at Grade 9 students, who need to master basic synthesizing skills and write *to be understood*. From a curricular point of view, students should first be allowed to fully focus on the basic processes of synthesizing. These three basic strategies are instructed in lessons 3–5 (Fig. 18.7). The unit included four phases: pre-flection, strategy instruction, task integration, and evaluation. In the first phase, the emphasis was on "pre-flection": previewing and experiencing the whole task that would be the object of the upcoming lesson series and evaluating model synthesis texts to develop an elaborate task representation. The second phase was an instructional phase. This phase was repeated three times (lessons 3–5), and with each repetition, a new strategy was added. In the integration phase, students had to apply all the strategies taught so far in a new task. The last phase emphasized "reflection" via the evaluation of the texts written in the integrative phase; students looked back on what they had learned during this lesson series.

In the pre-flection phase (lessons 0–2), students investigated their personal preferences to deal with writing tasks and gained insight in two main strategies (rapid drafting vs. preplanning) and chose which strategy they would try out in lessons 3–5. In lesson 6, they had the opportunity to reflect on their first choice and could choose again which strategy to apply when writing a new, complete text. This text was evaluated in lesson 7, shared with other students, and then students considered whether they had made the best choices in lessons 2 and 6.

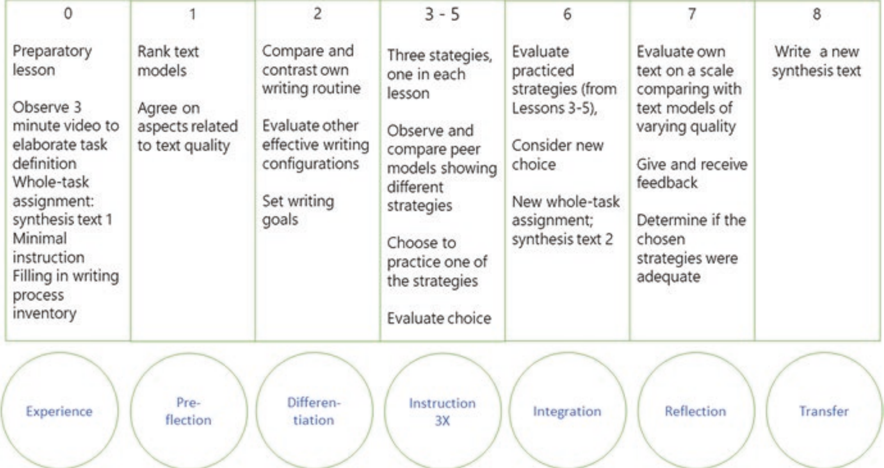

Fig. 18.7 Synthesis writing for novices in the language curriculum by Liselore Van Ockenburg

Lieke's Design

To support history teachers in providing support to Grade 11 students' historical writing, Lieke, a Dutch teacher-researcher, designed and tested a discipline-specific reading-writing unit. In doing so, she took teachers' unwavering focus to develop students' content knowledge into account. Therefore, the unit focused on *writing to understand*. Central to the learning unit was the development of students' historical understanding *through* writing, which would provide the opportunity to develop both understanding of historical content and historical writing at the same time.

Figure 18.8 shows the unit's structure. Students start their learning sequence by experiencing an evaluative writing task. Next, the sequence continues with iterative cycles of building, applying, and evaluating new knowledge which builds up historical writing, while gradually releasing scaffolds. Two cycles of practicing the taught strategy (lessons 4–5 and 6–7) are preceded by lessons 1–3, in which students experienced the whole task (lesson 1), related their own approach with peers (videoed), and constructed knowledge about dimension of text quality by ranking example texts, which responded to the task students fulfilled in lesson 1.

18.3.3.1 Comparative Analysis

Learning Content

Both designs aimed to teach reading-writing strategies. In Liselore's unit, these are the basic cognitive strategies for selecting, as well as organizing and connecting. This design *focuses on cognitive strategies*. Through a systematic review (Van Ockenburg et al., 2019), she identified three synthesizing processes that should be part of an intervention: selecting, organizing, and connecting (Spivey & King,

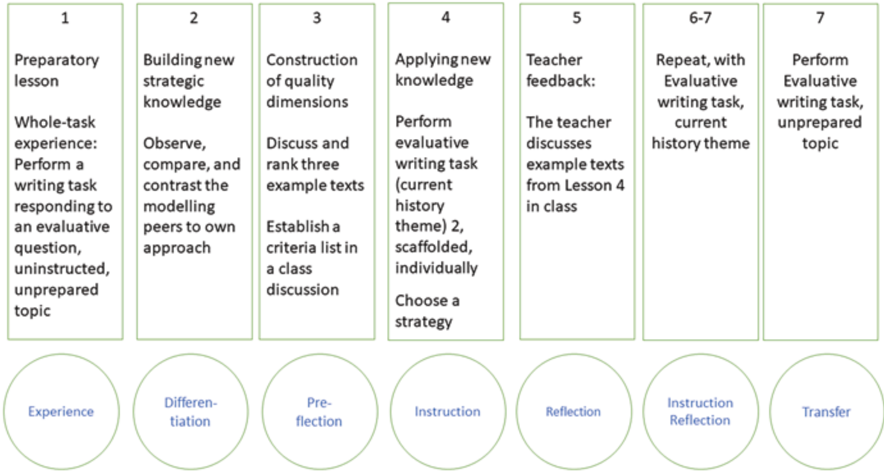

Fig. 18.8 Responding to evaluative issues in the history curriculum by Lieke Holdinga

1989). Therefore, if students must learn to compose better synthesis texts, then they must learn to apply strategies for selecting, organizing, and connecting.

Lieke's design was a mix of general cognitive strategies, as in Liselore's design, and discipline-specific aspects. Disciplines have their own epistemology, own ways of conducting research and reasoning, own principles and contexts to describe and analyze phenomena, own types of sources, and own genres and use of language (Goldman et al., 2016). Writing in history requires, for example, specific attention to source materials: "sourcing" is key in this discipline (Brante & Strømsø, 2018). Therefore, when teaching students how to write a good text in a specific discipline, it is important to highlight the discipline-specific aspects in the reading and writing process and the product – the resulting text. The specific discipline requires that students learn specific paths of historical reasoning that take into account multiperspectivity. History might be seen as a construction of mental models of past phenomena (Wiley et al., 2014), for which reading and evaluating different source materials becomes logically necessary.

Both designs focused on building awareness of strategy options and on awareness of personal writing routines. During schooling, students develop personal routines to prevent cognitive overload, which is inherent to complex tasks such as writing. They decompose the writing process into "steps" that they perform in a certain order: a writing routine (Kieft & Rijlaarsdam, 2005). However, when a task is new or complicated, a routine can prove insufficient and interact with the effectiveness of strategy instruction (Baaijen et al., 2014; Kieft et al., 2007; Torrance & Galbraith, 2006). Hence, an instructional design must pay attention to raising awareness of students' own writing routines, if we want them to learn to compose better synthesis texts.

Learning Mode

Lieke's design is built on discipline-specific, evaluative, explorative writing tasks based on sources, which evoke multiperspectivity. The basic format is "To what extent did X causes Y?." Such tasks prompt students to explore various perspectives on an issue and the underpinning arguments and to ultimately take a substantiated stance toward the issue at stake.

Both designs implemented strategy instruction. During the instructional phase in Liselore's design, the students *observed* peer models who applied cognitive synthesizing strategies and then *evaluated* what they observed by comparing and contrasting the strategies and discussing the observations and finally *practiced* the strategies. After practicing, the students *evaluated* whether the chosen strategy supported them sufficiently in achieving their writing goals.

During the integrational phase, the students *practiced* all the synthesizing strategies they had learned in the instructional phase together, in a new task. They were encouraged to re*evaluate* the strategies and make a deliberate choice again.

Finally, during the reflectional phase, the students evaluated the quality of their synthesis texts from the integrational phase by comparing their own text to a scale with texts of increasing quality, and they provided feedback on each other's texts.

Lieke designed a discipline-specific *reading-thinking-writing strategy*, based on previous studies (Britt & Rouet, 2012; De La Paz, 2007; Flower & Hayes, 1981; Holdinga et al., 2021). In this strategy, discipline-specific elements are integrated into established general writing process knowledge, mainly derived from the classic model Flower and Hayes presented in 1981 and supplemented with more recent insights into comprehension processes in reading (Van den Broek & Helder, 2017) and writing (Galbraith & Baaijen, 2018). For the strategy instruction (how to perform an evaluative writing task?), the design followed the "classic" model of self-regulated strategy development (SRSD) (Harris & Graham, 1996) as a foundation and included direct instruction, followed by modeling (by a peer) and support (scaffolding and feedback).

Both designs stimulated students' awareness of personal default strategies. In Liselore's design, students received their personal outcomes from a questionnaire about their writing routines that they had completed at the beginning of the first lesson. Their scores were related to the average scores of students from a national baseline study on synthesis texts (Vandermeulen, De Maeyer, et al., 2020a). Next, the students watched an animation video showing different effective writing configurations for synthesis tasks, based on research by Vandermeulen et al. (2020b, pp. 95–134). The students compared and contrasted their approach with the effective configurations shown and then made a writing plan: which aspects of their approach did they want to change and how? And which aspects were they satisfied with? To learn to compose better synthesis texts, the unit activated students' metacognition by encouraging them to choose between strategies and thus set personal goals for their writing tasks. This required designing flexible lessons, so students would be able to experiment with different strategies related to preplanning and drafting.

Lieke's design accounted for the finding in another study, which revealed that students might have different approaches for how to perform writing tasks in history (Holdinga et al., 2021). Therefore, the design offers two routes: *writing in flow* and *preplanning*. Some students have many ideas right from the start, which they prefer to write down immediately, in a few large writing spurts. A "flow writer's" first draft might be quite unorganized; the student will need to take his reader in mind when modifying his text into a final draft. Hence, those students are prompted to pay attention to the subsequent step: revising thoroughly. This prompt is in fact a prompt to *communicate* their message to the reader. Students who prefer the second *preplanning* route will build their texts based on a text scheme and use many short writing spurts. These writers are prompted to enliven their texts and to include examples that will enrich their texts for their readers. Therefore, students first execute an uninstructed target task (Lesson 1), after which the whole strategy with its two routes is presented. Students observed peer models on video as examples for both routes, compared the observed strategies with their own approaches, and then chose which route they wanted to try out in the next target task.

Learning Conditions

Lieke's design had to consider that subject teachers barely seem to pay attention to students' writing processes in their lessons (De Oliveira, 2011). History teachers hardly provide instruction on how to present historical reasoning in a written text. They do provide students with feedback on their texts but not on their reading and writing processes. Motivated by the formal curriculum goals, teachers' focus is on developing students' historical content knowledge and reasoning and not so much on developing students' writing skills. Teachers generally see texts as a reflection of students' understanding and not as a tool for development of understanding. Therefore, the design must create a learning environment that takes a positive stance toward writing instruction. This is why the design focuses on writing to learn. With this aim, it is important that the learning environment and specifically the teacher have a positive stance toward writing instruction. If teachers feel that supporting writing is not their responsibility or they believe it is not important for their subject, it is likely they will not implement writing instruction into their lessons properly or even at all (Holdinga et al., 2022). A first step toward integration of writing support into history education, to eventually enhance students' historical writing, is a teacher who is convinced of the potential this support might have. It is crucial for them to become *conscious* of the role of literacy in their discipline. Thus, trying to meet subject culture as much as possible with the use of writing-to-learn tasks is important, but other aspects depend on the willingness of teachers to slightly change their subject culture.

Liselore's design aimed to enable the construction of metacognitive knowledge. To fulfill that aim, some conditions had to be met. First, students should experience that all learning activities in the learning program were consistently linked. Students were motivated by the choice of the tasks which should match their interests and prior knowledge. In addition, students learned how they could benefit from synthesizing skills, for instance, in education and future occupations. The instruction

phases were cumulative, which meant students had to link each activity to the larger overall strategy. Therefore, each lesson started with activating prior knowledge and explaining the learning goals for that specific lesson. Each lesson ended with a personal reflection assignment, a starting point for the next lesson to build on during the review of what had been learned so far.

18.3.3.2 Critical Analysis

Synthesis Texts (Liselore)

This Design might be characterized as a Design that passed the threshold between Phases 2 and 3, as it aims at conditional knowledge from the teachers to run the lessons with optimal effects. The main focus is on strategy acquisition, not so much on initiating communication (DP1). In terms of I-It-You, it seems that metacognition is "It."

The basis of the design is to provide students with procedural knowledge for distinct phases of the process for writing a synthesis text which represents the source texts. For each of the three subskills – selecting, organizing, and connecting – students construct procedural information and apply it in guided training. Students receive this procedural information *in action*: they observe contrasting models for each of the subskills (DP2: *Demonstrate*). Moreover, they may choose which model they want to follow in the practice session. This element points to a Phase 3 Design (DP3: Differentiate), which enables students to develop conditional knowledge: when is procedure A more relevant for me than procedure B?

This opportunity to choose requires that students acquire knowledge about these conditions, which is done via two activities. First there are metacognitive prompts in the pre-flection phase, in which students explored their processes when reflecting on their first uninstructed practice of writing a synthesis text. Second, students were invited to choose twice in the design which route they would choose, and explained their choice, based on expectations (first choice) and experience (second choice option).

Writing for Understanding Historical Issues (Lieke)

We classify this Design as a Phase 3 Design, which aims to promote students' understanding of historical issues, by writing syntheses based on conflicting information from sources. The design consists of two basic components, (1) the specification of tasks that should prompt students' multi-perspective thinking and (2) a specific strategy for these kinds of tasks. The procedure provides students with options, depending on their personal preferences, to dive into the sources first or to find the main idea via exploratory writing. Both procedures are demonstrated in action (DP2: Demonstration). Students can base their choices on videos that present the different processes. A critical issue here is whether students in Lieke's design have sufficient information about their own "default" processes to make an informed choice. This was tackled in Liselore's design when students gain insight in their process preferences via a questionnaire.

The content in the tasks is important for disciplinary understanding of specific themes of the history curriculum ("It"); the teacher is the reader ("You"), who provides her feedback to the whole class discussing a sample of texts; and the student must relate herself to the topic, in these argumentative tasks ("I").

18.4 Final Remarks

18.4.1 Understanding and Being Understood

Fundamental for students to understand why they learn to write at school is that they perceive and experience the process of understanding and being understood: writing means that you share your thoughts, ideas, analyses, explanations, opinions, feelings with others, or in some cases expressive writing, with yourself. This requires complimentary writing and reading tasks. Typical in an educational setting is that these writing and reading experiences are used in a next learning phase: the metacommunicative tasks that prompt reflection on these processes to improve the learner's repertoire of verbal expressions. Although there is writing and reading in all six designs, only a few showed this writing-reading combination complemented with a metacommunicative phase. We will now discuss two observations based on the designs presented in this chapter.

Observation 1: Writing to Understand: "It"
Writing to understand "the world" is present to some extent in all the designs presented in Sect. 18.3, as in all writing there is a topic to cover. It involves understanding subject matter such as issues in history or science, the content of a literary text, language and/or discursive genre, the concept of social phenomena, creating a fictional world, or the self.

When writing in subject classes, understanding the topic is the main goal (Edith & Lieke's designs): the text represents the student's level of understanding, for the teacher as an implied reader. "It" is the theme of the subject or discipline at stake, while "You" is somewhat absent.

When writing in language classes (Joanna, Margarita, Anouk, and Liselore), the focus on "It" varies. When the focus is on "I," in expressive writing (Joanna, Anouk), the self is in fact the topic: understanding your experiences by integrating these in a given concept (Joanna) or creating new fictional worlds (Anouk). In the other two designs (Margarita and Liselore), the writing content is less dominant, as the designs focus on text structures (Margarita) and writing processes (Liselore). "It" seems not to be referring to real-world phenomena but to language phenomena (Margarita) or metacognitive phenomena (Liselore).

Observation 2: Writing to Be Understood: "You"
The communicative paradigm, in terms of establishing reader-writer relations ("I"-"You"), is not strongly present in the set of designs we analyzed. In fact,

students only functioned as real readers in class during one design (Anouk): they form a community of writers and readers in a writing lab situation, sharing texts that were written in the same lesson. In this design, students take the role of author-colleagues, providing each other with advice to improve their fictional texts. It was possible to create such a lively sharing session because students could choose from several tasks, so that the reading act implied that readers could read texts from other tasks than the one they had written themselves, which creates a more natural form of reading. Even when students read texts from the same task that they themselves accomplished, the creative approach resulted in many different solutions, which makes them curious as readers. In Joanna's practice, we saw a teacher acting as a "natural reader," when she commented on the texts that students wrote during the lessons, going from desk to desk. When expressive, creative writing is the focus (Joanna & Anouk), the I-You relation seems to be inherently present in the designs.

In the other four designs, the students also read each other's texts. However, they did not read peer texts so often in a communicative role ("understanding") and more often from a learner role: they are acting as learners (Fig. 18.1), in a metacommunicative role. We see writers operating as reader-learners in two phases of a learning unit.

Pre-flection phase In three designs, we see students first writing a text (experiencing the whole task), and then, in a metacommunicative role, they rank and discuss sets of teacher-selected texts to distil distinct text quality dimensions. In this phase, students build a task representation in terms of product goals. See, for instance, Liselore's design (Fig. 18.7, pre-flectional phase), Edith's design (Fig. 18.6, lesson 3), and Lieke's design (Fig. 18.8, lesson 3). The insights from this action are then used as evaluation criteria in the peer-feedback phase.

Feedback phase Students read each other's texts and provide feedback (all but Joanna's design). Students were placed in distinct roles. They acted as colleague-authors, working with tips and tops (Anouk), or applied text evaluation schemes with aspects that were new in that phase (Margarita) or were introduced in the pre-flection phase (Liselore's, Edith's, and Lieke's designs).

18.4.2 The Concept of Design Phases

From a theoretical point of view, the three design stages and their corresponding design principles (Initiate, Demonstrate, and Differentiate) form a progressive continuum, with increasing complexity, enabling teachers to accumulate deeper insight in writing processes as content for learning and learning-to-write processes for instructional decisions. The issue now is whether the six designs we analyzed validate this assumption.

Although all the designers were teachers, they acted from a distinct perspective, combining teaching and research. Two of them (Joanna, Margarita) are teachers

fully in practice, who design their lessons by themselves, "on the road." The others (Anouk, Edith, Lieke, Liselore) combine teaching and research; they designed their lessons in the context of an intervention study, in collaboration with a research lab. These teacher-researchers aimed to move writing education forward, by implementing knowledge from research in new instructional designs when attempting to teach students something new in a limited number of sessions: a new kind of text (creative and synthesis of source information), with strategies for how to produce such texts. The designs from the teacher-researchers were all in Phases 2 and 3, and they all included Design Principles 1 and 2 in some form. The simple theory of writing (phase 1) was recognized in the pre-flection phase: writers reading as readers, sharing reading experiences with peers, and building a representation together of text quality dimensions that could be used to distinguish texts according to their comprehensibility.

Please also note that these four research designs were not constructed quickly and with ease. The four teacher-researchers worked closely with teacher-colleagues and tried out parts of their designs in practice before they put the whole design to the test. During that development phase, various teachers implemented the designs in their classes, and the researchers tested whether the design was effective. Executing these designs was not always successful, although teachers were informed, trained, and guided extensively on how to do so. Sometimes, some elements were skipped or not fully executed, because the teachers who implemented the lessons lacked a deep understanding of the function of specific design elements.

On the other hand, the two practice-based designs did not show any explicit ingredients that indicated a move toward phase 2, the procedural phase, although in Joanna's design, we did see the use of implicit knowledge about processes and conditions to guide individual students in real time.

An intriguing question is what would happen with Joanna's and Margarita's lessons if they were designing these lessons, infused with new knowledge about procedures for how to create such texts, an expressive narrative on a certain topic in which conceptual understanding (concept of stereotypes) is constructed (Joanna) or a book review, in which this conceptual understanding is constructed in relation with a specific literary text (Margarita)? We tend to think that both teachers would attempt to make that next step, given their extant expertise, although they would probably differ in the way they would teach those procedures. We would expect a more inductive pattern in Joanna's redesign and a more explicit pattern in Margarita's design. Our multiple case study (Flores-Ferrés, 2021; Flores-Ferrés et al., 2022a) demonstrated that both teachers appeared to comprehend what literacy education requires, but probably, both teachers lacked opportunities, models, and/or references that could help promote their practices to the next phase.

Therefore, we will close this chapter by reiterating what we wrote in the introduction: all teachers, from all subjects, must acquire the basic knowledge about writing processes and design principles during their initial teacher training, so that when teachers and researchers meet in settings of in-service training, and teachers thus encounter new knowledge and designs for teaching writing, they will have sufficient common ground to create comprehensive writing education. It would mean

that all three principles (communicate, demonstrate, and differentiate) are validly implemented in a reading-writing-oracy curriculum (see for such a program in Rietdijk et al. (2017)) in which communicative and metacommunicative task design is combined with procedural and conditional knowledge in action.

Credit All six instructional designs are from one and the same lab, from dissertation studies by Magdalena Flores-Ferrés, Anouk Ten Peze, Edith Alkema, Liselore Van Ockenburg, and Lieke Holdinga.

Magdalena Flores-Ferrés	Project administration, investigation practices, and writing – review and editing
Daphne Van Weijen	Methodology, supervision of the projects involved, and writing – review, editing, and validation
Liselore Van Ockenburg	Investigation intervention, methodology, and writing – validation theory section and visuals
Anouk Ten Peze	Investigation intervention, methodology, and writing
Edith Alkema	Investigation intervention, methodology, and writing
Lieke Holdinga	Investigation intervention, methodology, and writing
Gert Rijlaarsdam	Conceptualization, methodology, supervision of the projects involved, writing original draft, and writing – review and editing

References

Alkema, E., Van Weijen, D., & Rijlaarsdam, G. (2021). *Synthesis writing in science orientation classes: a design study* [Manuscript submitted for publication]. Department of Child Development and Education, University of Amsterdam.

Amir, A., Atkin, H., & Rijlaarsdam, G. (2021). The case of 'Yummy': A replication of an intervention program. *L1-Educational Studies in Language and Literature, 21*(1), 1–36. https://doi.org/10.17239/L1ESLL-2021.21.01.16

Baaijen, V. M., Galbraith, D., & de Glopper, K. (2014). Effects of writing beliefs and planning on writing performance. *Learning and Instruction, 33*, 81–91. https://doi.org/10.1016/j.learninstruc.2014.04.001

Baer, J. (2013). Teaching for creativity: Domains and divergent thinking, intrinsic motivation, and evaluation. In M. B. Gregerson, H. T. Snyder, & J. C. Kaufman (Eds.), *Teaching creatively and teaching creativity* (pp. 175–181). Springer.

Beghetto, R. A., & Kaufman, J. C. (2007). Toward a broader conception of creativity: A case for "mini-c" creativity. *Psychology of Aesthetics, Creativity, and the Arts, 1*(2), 73. https://doi.org/10.1037/1931-3896.1.2.73

Beghetto, R. A., & Kaufman, J. C. (2014). Classroom contexts for creativity. *High Ability Studies, 25*(1), 53–69. https://doi.org/10.1080/13598139.2014.905247

Bereiter, C., & Scardamalia, M. (1987). *The psychology of written composition*. Routledge.

Braaksma, M. A. H., Rijlaarsdam, G., & Van den Bergh, H. (2002). Observational learning and the effects of model-observer similarity. *Journal of Educational Psychology, 94*(2), 405–415. https://doi.org/10.1037/0022-0663.94.2.405

Brante, E. W., & Strømsø, H. I. (2018). Sourcing in text comprehension: A review of interventions targeting sourcing skills. *Educational Psychology Review, 30*(3), 773–799. https://doi.org/10.1007/s10648-017-9421-7

Britt, M. A., & Rouet, J. F. (2012). Learning with multiple documents: Component skills and their acquisition. In J. R. Kirby & M. J. Lawson (Eds.), *Enhancing the quality of learning: Dispositions, instruction, and learning processes* (pp. 276–314). Cambridge University Press. https://doi.org/10.1017/CBO9781139048224.017

Brown, A. L., & Palincsar, A. S. (1987). *Reciprocal teaching of comprehension strategies: A natural history of one program for enhancing learning*. Ablex Publishing.

Casado-Ledesma, L., Cuevas, I., Van den Bergh, H., Rijlaarsdam, G., Mateos, M., Granado-Peinado, M., & Martin, E. (2021). Teaching argumentative synthesis writing through deliberative dialogues: Instructional practices in secondary education. *Instructional Science, 49*, 515. https://doi.org/10.1007/s11251-021-09548-3

Couzijn, M. J. (1995). *Observation of writing and reading activities: Effects on learning and transfer* (Unpublished dissertation). University of Amsterdam.

Cropley, A. J. (1995). Fostering creativity in the classroom: General principles. In M. Runco (Ed.), *The creativity research handbook* (Vol. 1, pp. 83–114). Hampton Press.

Davies, D., Jindal-Snape, D., Collier, C., Digby, R., Hay, P., & Howe, A. (2012). Creative learning environments in education – A systematic literature review. *Thinking Skills*. https://doi.org/10.1016/j.tsc.2012.07.004

De la Paz, S. (2007). Managing cognitive demands for writing: Comparing the effects of instructional components in strategy instruction. *Reading and Writing Quarterly, 23*(3), 249–266. https://doi.org/10.1080/10573560701277609

De Oliveira, L. C. (2011). *Knowing and writing school history: The language of students' expository writing and teachers' expectations*. IAP.

Doyle, C. L. (1998). The writer tells: The creative process in the writing of literary fiction. *Creativity Research Journal, 11*(1), 29–37. https://doi.org/10.1207/s15326934crj1101_4

Finke, R. A., Ward, T. B., & Smith, S. M. (1992). *Creative cognition: Theory, research, and applications*. MIT Press.

Flores-Ferrés, M. (2021). *Teaching writing in Chile. An evidence base for policies on writing instruction in Grades 7–12 of Chilean public schools* (Unpublished doctoral dissertation). University of Amsterdam.

Flores-Ferrés, M., van Weijen, D., & Rijlaarsdam, G. (2022a). *Teachers' implementation of the writing curriculum in Grades 7–8 of Chilean public schools: A multiple case study* [Manuscript submitted for publication]. Department of Child Development and Education, University of Amsterdam.

Flores-Ferrés, M., Van Weijen, D., & Rijlaarsdam, G. (2022b). Understanding writing curriculum innovation in Grades 7–12 in Chile: Linking teachers' beliefs and practices. *Journal of Writing Research, 13*(3), 367–414. https://doi.org/10.17239/jowr-2022.13.03.02

Flower, L., & Hayes, J. R. (1981). A cognitive process theory of writing. *College Composition and Communication, 32*(4), 365–387. https://doi.org/10.2307/356600

Galbraith, D., & Baaijen, V. M. (2018). The work of writing: Raining the inarticulate. *Educational Psychologist, 53*(4), 238–257. https://doi.org/10.1080/00461520.2018:1505515

Goldman, S. R., Britt, M. A., Brown, W., Cribb, G., George, M. A., Greenleaf, C., Lee, C. D., Shanahan, C., & Project READI. (2016). Disciplinary literacies and learning to read for understanding: A conceptual framework for disciplinary literacy. *Educational Psychologist, 51*(2), 219–246. https://doi.org/10.1080/00461520.2016.1168741

Graham, S. (2018a). A writer(s)-within-community model of writing. In C. Bazerman, V. W. Berninger, D. Brandt, S. Graham, J. Langer, S. Murphy, et al. (Eds.), *The lifespan development of writing* (pp. 272–325). National Council of English.

Graham, S. (2018b). A revised writer(s)-within-community model of writing. *Educational Psychologist, 53*(4), 258–279.

Graham, S. (2019). Changing how writing is taught. *Review of Research in Education, 43*(1), 277–303.

Graham, S., & Rijlaarsdam, G. (2016). Writing education around the globe: Introduction and call for a new global analysis. *Reading and Writing, 29*(5), 781–792. https://doi.org/10.1007/s11145-016-9640-1

Harris, K., & Graham, S. (1996). *Making the writing process work: Strategies for composition and self-regulation*. Brookline Books.

Holdinga, L., Janssen, T., & Rijlaarsdam, G. (2021). The relationship between students' writing process, text quality, and thought process quality in 11th-grade history and philosophy assignments. *Written Communication, 38*(4), 544–586. https://doi.org/10.1177/2F07410883211028853

Holdinga, L., Van Drie, J., Janssen, T., & Rijlaarsdam, G. (2022). *Disciplinary literacy in history: In search of an effective instructional design to enhance students' historical writing* [Manuscript submitted for publication]. Department of Child Development and Education, University of Amsterdam.

Kellogg, R. T. (1999). *The psychology of writing*. Oxford University Press.

Kieft, M., & Rijlaarsdam, G. (2005). Schrijftaken en schrijverstypen. [Writing tasks and writer types]. *Levende Talen Magazine, 92*(2), 9–12.

Kieft, M., Rijlaarsdam, G., & Van den Bergh, H. (2006). Writing as a learning tool: Testing the role of student's writing strategies. *European Journal of Psychology of Education, 21*(1), 17–34. https://doi.org/10.1007/BF03173567

Kieft, M., Rijlaarsdam, G., Galbraith, D., & Van den Bergh, H. (2007). The effects of adapting a writing course to students writing strategies. *British Journal of Educational Psychology, 77*, 565–578. https://doi.org/10.1348/096317906x120231

Kieft, M., Rijlaarsdam, G., & Van den Bergh, H. (2008). An aptitude-treatment interaction approach to writing-to-learn. *Learning and Instruction, 18*, 379–390. https://doi.org/10.1016/j.learninstruc.2007.07.004

Kyriakides, L., Creemers, B. P., & Antoniou, P. (2009). Teacher behaviour and student outcomes: Suggestions for research on teacher training and professional development. *Teaching and Teacher Education, 25*(1), 12–23. https://doi.org/10.1016/j.tate.2008.06.001

Lopez, P., Torrance, M., Rijlaarsdam, G., & Fidalgo, R. (2017). Effects of direct instruction and strategy modelling on upper-primary students' writing development. *Frontiers Psychology, Educational Psychology, 8*. https://doi.org/10.3389/fpsyg.2017.01054

Mateos, M., Rijlaarsdam, G., Martin, E., Cuevas, I., Van den Bergh, H., & Solari, M. (2020). Learning paths in synthesis writing: Which learning path contributes most to which learning outcome? *Instructional Science, 48*, 137–157. https://doi.org/10.1007/s11251-020-09508-3

Maulana, R., Helms-Lorenz, M., & van de Grift, W. (2015). Development and evaluation of a questionnaire measuring pre-service teachers' teaching behaviour: A Rasch modelling approach. *School Effectiveness and School Improvement, 26*(2), 169–194. https://doi.org/10.1080/09243453.2014.939198

Moffett, J. (1965). I, you, and it. *College Composition and Communication, 16*(5), 243–248. https://doi.org/10.2307/355201

Perry, K. (2012). What is Literacy? A critical overview of sociocultural perspectives. *Journal of Language and Literacy Education* [Online], *8*(1), 50–71. Available at http://jolle.coe.uga.edu/wp-content/uploads/2012/06/What-is-Literacy_KPerry.pdf

Revisa los rankings de los colegios con mejores promedios en la PSU. (2020, February 25). *La Tercera*. https://www.latercera.com/nacional/noticia/revisa-los-rankings-los-colegios-mejores-promedios-la-psu/1020357/

Rietdijk, S., Janssen, T., van Weijen, D., van den Bergh, H., & Rijlaarsdam, G. (2017). Improving writing in primary schools through a comprehensive writing program. *The Journal of Writing Research, 9*(2), 173–225. https://doi.org/10.17239/jowr-2017.09.02.04

Rietdijk, S., van Weijen, D., Janssen, T., van den Bergh, H., & Rijlaarsdam, G. (2018). Teaching writing in primary education: Classroom practice, time, teachers' beliefs and skills. *Journal of Educational Psychology, 110*(5), 640. https://doi.org/10.1037/edu0000237

Rijlaarsdam, G., & Couzijn, M. (2000). What do writers learn from peer comments on argumentative texts? In G. Rijlaarsdam, E. Espéret (Series Eds.), A. Camps, & M. Milian (Vol. Eds.), *Studies in writing. Metalinguistic activity in learning to write* (Vol. 6, pp. 167–202). Amsterdam University Press.

Rijlaarsdam, G., Couzijn, M., Janssen, T., Braaksma, M., & Kieft, M. (2006). Writing experiment manuals in science education: The impact of writing, genre, and audience. *International Journal of Science Education, 28*(2–3), 203–233. https://doi.org/10.1080/09500690500336932

Rijlaarsdam, G., Braaksma, M., Couzijn, M., Janssen, T., Raedts, M., Van Steendam, E., Toorenaar, A., & Van den Bergh, H. (2008). Observation of peers in learning to write. Practise and research. *Journal of Writing Research, 1*(1), 53–83. https://doi.org/10.17239/jowr-2008.01.01.3

Rijlaarsdam, G., Braaksma, M., Couzijn, M., Janssen, T., Kieft, M., Raedts, M., Van Steendam, E., Toorenaar, A., & Van den Bergh, H. (2009). The role of readers in writing development: Writing students bringing their texts to the test. In R. Beard, D. Myhill, J. Riley, & M. Nystrand (Eds.), *The SAGE handbook of writing development* (pp. 436–452). SAGE Publications. https://doi.org/10.4135/9780857021069.n31

Rijlaarsdam, G., Van den Bergh, H., Couzijn, M., Janssen, T., Braaksma, M., Tillema, M., Van Steendam, E., & Raedts, M. (2012). Writing. In K. R. Harris, S. Graham, T. Urdan, A. Bus, S. Major, & H. L. Swanson (Eds.), *APA educational psychology handbook, Vol 3: Application to learning and teaching* (pp. 189–227). American Psychological Association, viii, 668 pp. https://doi.org/10.1037/13275-009

Schacter, J., Thum, Y. M., & Zifkin, D. (2006). How much does creative teaching enhance elementary school students' achievement? *The Journal of Creative Behavior, 40*(1), 47–72. https://doi.org/10.1002/j.2162-6057.2006.tb01266.x

Spivey, N. N., & King, J. R. (1989). Readers as writers composing from sources. *Reading Research Quarterly, 24*(1), 7–26. https://doi.org/10.1598/RRQ.24.1.1

Ten Peze, A., Janssen, T., Van Weijen, D., & Rijlaarsdam, G. (2022). *The effect of creative writing instruction on students' writing performance and writing speed* [Manuscript submitted for publication]. Department of Child Development and Education, University of Amsterdam.

Torrance, M., & Galbraith, D. (2006). The processing demands of writing. In *Handbook of writing research* (pp. 67–80). Guilford Press.

Van de Grift, W. J. C. M. (2010). Ontwikkelingen van beroepsvaardigheden van leraren. [Development of teachers professional skills] Oratie Rijksuniversiteit Groningen. Eindhoven: Lecturis.

Van de Grift, W. J. C. M., Van der Wal, M., & Torenbeek, M. (2011). Ontwikkeling in de pedagogische-didactische vaardigheid van leraren in het basisonderwijs [Development of instructional skills of teachers in primary education]. *Pedagogische Studiën, 88*(6), 416–432.

Van den Broek, P., & Helder, A. (2017). Cognitive processes in discourse comprehension: Passive processes, reader-initiated processes, and evolving mental representations. *Discourse Processes, 54*(5–6), 360–372. https://doi.org/10.1080/0163853X.2017.1306677

Van Ockenburg, L. (2019, February 2). *Puck Renske ARLE 2019* [video] YouTube https://www.youtube.com/watch?v=Y8lDa03XTKU

Van Ockenburg, L., Van Weijen, D., & Rijlaarsdam, G. (2019). Learning to write synthesis texts: A review of intervention studies. *Journal of Writing Research, 10*(3), 401–428. https://doi.org/10.17239/jowr2019.10.03.0

Van Ockenburg, L., van Weijen, D., & Rijlaarsdam, G. (2021). Learning how to synthesize: The design and evaluation of a reading-writing learning unit for high-school students. *L1 Educational Studies in Language and Literature, 21*(Running issue). https://doi.org/10.17239/L1ESLL-2021.21.01.06

Van Ockenburg, L., van Weijen, D., & Rijlaarsdam, G. (2023). Choosing how to plan informative synthesis texts: Effects of strategy-based interventions on overall text quality. *Reading and Writing,* 36, 997–1023 (2023). https://doi.org/10.1007/s11145-021-10226-6

Van Steendam, E., Vandermeulen, N., De Maeyer, S., Lesterhuis, M., Van den Bergh, H., & Rijlaarsdam, G. (2022). How students perform synthesis tasks: An empirical study into dynamic process configurations. *Journal of Educational Psychology, 114*, 1773.

Vandermeulen, N., De Maeyer, S., Van Steendam, E., Lesterhuis, M., Van den Bergh, H., & Rijlaarsdam, G. (2020a). Mapping synthesis writing in various levels of Dutch upper-secondary education. A national baseline study on text quality, writing process and students' perspectives on writing. *Pedagogische Studiën, 97*(3), 187–236.

Vandermeulen, N., Van Steendam, E., van den Broek, B., & Rijlaarsdam, G. (2020b). In search of an effective source use pattern for writing argumentative and informative synthesis texts.

Reading and Writing: An Interdisciplinary Journal, 33(2), 239–266. https://doi.org/10.1007/s11145-019-09958-3

Wiley, J., Steffens, B., Britt, M. A., & Griffin, T. D. (2014). Writing to learn from multiple source inquiry activities in history. In G. Rijlaarsdam (Series Ed.), P. D. Klein, P. Boscolo, L. C. Kirkpatrick, & C. Gelati (Vol. Eds.), *Studies in writing. Vol. 28: Writing as a learning activity* (pp. 120–148). Brill. https://doi.org/10.1163/9789004265011_007

Zimmerman, B. J., & Kitsantas, A. (2002). Acquiring writing revision and self-regulatory skill through observation and emulation. *Journal of Educational Psychology, 94*(4), 660–668. https://doi.org/10.1037/0022-0663.94.4.660

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