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Editors

Working with Text and Around Text in Foreign Language Environments

Springer

Second Language Learning and Teaching

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About the Editors

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Contributors

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Paul Meara is a founder member of the Department of Applied Linguistics at Birkbeck University of London. He moved to Swansea University in 1990 to set up an innovative PhD program aimed at part-time and distance learning students. The program focussed mainly on research in vocabulary acquisition with a special interest in developing assessment tools. Paul was elected as a City Councillor in 2008, and retired from Swansea University shortly after. However, he continues to be an active researcher, working mostly on computational models of L2 lexicons, and, more recently, on bibliometric histories of applied linguistics.

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Introduction

Focus on text in language description and language pedagogy has received relatively less attention in specialized literature than focus on its elements in isolation. Intrasentential processes, lexical relations, both syntagmatic and paradigmatic, or cohesion, to name but a few, have been studied and analyzed extensively as the basis for understanding textual processes. It has been assumed that text structure follows from and is regulated by the principles that typically govern sentences and that text is processed and generated as a result of gluing together its individual components.

Text, however, is much more than the sum of its parts. It is a structure that has its own specific characteristics that go beyond various levels of formal linguistic analysis. First, text creation and reception involves the interplay between the language and the human—texts do not exist, they happen as a result of this interaction. Second, text has its own macrostructure that cannot be accounted for by analyzing it at the sentential, lexical, or even discourse levels. Third, texts occur in contexts that extend beyond formal descriptions of language. They are dynamic in that the meaning that arises from texts is the result of the three-partite process: the text itself, understood as a collection of signs, reception that stems from the interaction between the recipient and the text, and projection, which is the result of that interaction.

In a foreign language setting, texts have been used with virtually any method and approach. Teachers and learners live by the texts in course books and other materials for it is common knowledge that reading constitutes an integral part of learning any foreign language. Developing reading as a skill and using texts as input for practicing other skills and language areas fosters not only the ability to communicate, but also literacy in general. But the pedagogic context is also witness to text creation, be it written or spoken. Letters, emails, essays, creative writing, descriptions, discussions, or classroom talk are all examples of text used in the classroom.

The book is an attempt to investigate a wide range of contexts within the FL domain where text serves a central role. In doing so, we address what we feel are the three pivotal points of interest: reception, construction, and deconstruction,

hence the decision to divide the book into three parts. The division is not arbitrary, but corresponds to what we feel is a logical sequence of text-related processes.

In Part I, *Receiving Text*, the focus is on various aspects of text reception. The first chapter by Maria Dakowska addresses the problem of developing reading ability in EFL instruction from the teacher training perspective, especially the need to formulate the criteria for task design for prospective teachers of English. She aims at integrating a range of sources of orientation from the most to the least general, with a view to deriving a set of principles for task design in reading comprehension for the Polish learners of English.

Monika Kusiak-Pisowacka discusses a mental model of reading referred to as grammar of exposition. Her study exemplifies the utility of the paradigm in investigating learners' comprehension processes. She also points to the versatility of the model in the EFL setting where it may be used to develop the awareness of text structure and to enhance the understanding of the writer's strategies to express meaning.

Halina Chodkiewicz provides an overview of major insights into the nature of interest as a factor in reading, obtained both at theoretical and empirical levels. She asserts that those can help FL specialists in exploring the complexity of the construct of interest. Halina Chodkiewicz's main argument is that the recognition of the importance of the role of personal and situational interest when working with texts in foreign language settings is indispensable for adopting a systematic research-based approach in planning for and organizing efficient reading practice.

Anna Kiszczak's chapter tackles the issue of designing study questions that accompany reading texts to enhance students' inquiry skills and discipline-specific knowledge. She provides an in-depth analysis of the end-of-chapter study questions in three TEFL textbooks. The implications of the study, although suggestive rather than conclusive, demonstrate which types of questions are more cognitively engaging thus allowing for more efficient text processing.

Ewa Guz's chapter discusses the perception of the academic register by undergraduate students. The goal of the study is to identify the inventory of features that are most typically associated with the genre. In doing so, Ewa Guz concentrates on the whole array of idiosyncrasies of EAP as well as those aspects of academic register that pose problems to the learners.

The chapter that concludes Part I, written by Mirosław Pawlak, provides an overview of the issues related to the assessment of spoken texts produced by the learners of English. By focusing on the vast repertoire of tools for assessing spoken texts in the EFL context, Mirosław Pawlak concludes that the assessment of learners' spoken texts that takes place in educational settings is unsatisfactory as it is mainly concerned with the evaluation of grammar or vocabulary rather than focusing on speaking per se. The implications that stem from the analysis suggest drawing on more feasible options in assessing learners' oral texts, such as speeches, presentations, picture descriptions, or story retelling, together with less formal assessment that would minimize the possibility of producing negative washback.

Part II of the book, *Constructing Text*, is concerned with how learners of English at different proficiency and age levels go about creating stretches of language that constitute coherent text. In the opening chapter, Magdalena Trepczyńska

concentrates on the place of author identity in academic writing. Starting with the premise that it is commonly perceived as neutral and objective, she proceeds with the study of first person pronouns as explicit markers of authorial stance in the writing of L2 undergraduate students.

Along similar lines, Piotr Steinbrich's chapter investigates the role of lexical syntagms in the process of creating academic text. Drawing on the Russian model of lexicography, he proposes a typology of formulaic expressions used by expert writers, which serves as a springboard for the analysis of such phrases as used by non-expert writers. He concludes that at the pedagogic level more focus is needed on the notion of fixedness of such expressions to preclude too much creativity and deviation from the rather idiosyncratic academic genre. One of the pedagogic implications of the chapter is also attention to collocation complexes to allow for a more effective assimilation of the tools needed to address various academic tasks.

The chapter by Katarzyna Hryniuk is devoted to citation conventions used by expert writes in various specialized journals and non-expert Polish writers. The insights from the study point at the complexity of citation practices used in academic writing.

Krzysztof Kotuła's chapter is devoted to the aspect of collaborative writing in Polish secondary schools in the Web 2.0 era. The study has two major goals. First, it investigates how the learners engage in collaborative writing using web-based tools. Second, it is concerned with determining the nature of group participation in the process of collaborative writing. The implications of the study demonstrate an overwhelmingly positive attitude of the learners towards collaborative writing projects.

In conclusion to Part II, Teresa Maria Włosowicz discusses the viability of gap-filling tasks in L2 instruction which she believes to be a form of text construction. Treating gap-fills as cognitively demanding, multi-faceted processes, she asserts that in order to successfully complete the task, learners need to create a mental model of the text in question rather than relying on local cues which could be misleading and consequently result in error.

Part III, *Deconstructing Text*, is mainly devoted to various individual elements that constitute text. Paul Meara's chapter describes a novel way in which to map the structure of a text. Using bibliometric tools to show the cooccurrence patterns of the component elements of the text, he concludes that lexical clustering might be an emergent feature of texts and that clustering may play a significant role in the way learners acquire text-related words and also how those words organize themselves into semantic sets and formulaic sequences.

Steve Walsh's chapter offers an amalgamation of two seemingly disparate approaches to analyzing conversation: the corpus linguistics approach and the conversational analysis approach. Treating classroom conversation as interactive text, he suggests that the new combined model offers a fuller description of classroom talk and facilitates interactions which are more conducive to learning.

Jarosław Krajka's chapter deals with the concept of language awareness and how to foster it among trainee teachers. With a self-compiled corpus and a quiz authoring tool, teachers are encouraged to perform various text-based corpus-driven tasks with a view to building greater target language awareness and developing confidence.

Silvia Valencia Giraldo offers a study on classroom interaction in the primary classroom in the bilingual context. Taking classroom discourse as text, she seeks to investigate how meaning is collaboratively constructed by the teacher and the learners.

The chapter by Małgorzata Tetiurka investigates the use of L1 in an FL primary classroom. In particular, her study deals with pre-service teachers' beliefs concerning the role L1 plays in classroom discourse in the primary setting and whether, and if so, to what extent, it contributes to both classroom interaction and the textuality of the classroom talk. One of the implications of the study is that reflection on classroom discourse should be central to any teaching practice.

Levent Uzun addresses the problem of lexical gaps between languages, referred to as the absence of lexical items and concepts either in the learners' mother tongue or in the target language. The chapter discusses the negative influence of lexical gaps on lower-level learners' motivation and on the learning process itself. It concludes on a socio-political note questioning English as a lingua franca and pointing at how it fails to compensate for lexical gaps, especially in the case of non-Western learners of English.

We realize that the book merely scratches the surface of the problem of text in the FL context. In the current state of knowledge, it is not possible to offer a comprehensive account of what text is and how it works, even within only one domain such as second language acquisition. We nevertheless hope that this collection will contribute to the understanding of the complex nature of studies on text in the field. As you progress through this volume, we do hope that you learn from it and enjoy it as much as we did when putting it together. Any shortcomings or inconsistencies that you may perceive as you delve into it are our responsibility.

Halina Chodkiewicz
Piotr Steinbrich
Małgorzata Krzemińska-Adamek

Part I
Receiving Text

Principles of Task Design in Reading for Polish Learners of English as a Foreign Language

Maria Dakowska

Abstract This article addresses the problem of developing reading ability in English as a foreign language from the point of view of teacher training. In particular, it deals with the need to formulate task design criteria for prospective teachers of English who major in English and participate in TEFL courses at the university level. Reading is a complex process involving extensive knowledge representations for decoding and understanding literal and figurative meaning. Critical evaluation of the message is also essential. These factors contribute to the depth of processing and the resulting memory trace. An attempt is made to systematize the issues using such sources of orientation (ordered from the most to the least general) as: our cognitive system for information processing with its subsystems, information structures and processes, specialized for verbal communication organizing our understanding of language use, especially reading comprehension. In this context, I focus on the psycholinguistic processes involved in reading comprehension, their goals and stages, their dynamic nature with regards to computing meaning, the pervasiveness of drawing inferences, and the role of the reader's resources that are activated for the reading task. Following the creed that cognition is recognition, reading-task adjustment strategies relevant from the point of view of EFL learners can be grouped as didactic functions and options in pre-reading, reading and follow-up activities. The goal of this article is to integrate these sources of orientation into a coherent framework which can be used for deriving rational/professional principles of task design in reading comprehension for learners of English.

1 Introduction

Among a variety of issues connected with reading, e.g., literacy in first and second language (e.g., Alvermann, Fitzgerald, & Simpson, 2009; Kamil, Mosenthal, Pearson, & Barr, 2000; Urquhart & Weir, 1998), life-span development of reading

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(Ruddell & Unrau, 2006), comparison of reading in L1 and L2 (Koda, 2005), L2 reading as a language or a comprehension problem (e.g., Alderson, 1998), assessment of reading proficiency (Alderson, 2000), evolution in the development of reading research (Kamil et al., 2000; Ruddell & Unrau, 2006), this article addresses the problem of developing reading ability in learners of English as a foreign language. However, in order to talk about the development of EFL reading ability in a way meaningful to EFL learners, language teacher trainees and teachers, we must refer to the *real nature* of the reading processes understood as psycholinguistic operations and strategies activated by the human subject during the decoding and understanding of written discourse (Greasser, Gernsbacher, & Goldman, 2003). In the context of verbal communication, this focus makes it possible to deal with the rapid recent development of various forms of reading which create numerous challenges for EFL learners in the digitalized globalized world. Graesser et al. (2003) very aptly characterize these new challenges for the participants in communication, as well as its researchers:

> Electronic technologies are revolutionizing day-to-day communication by providing new, virtual environments for interaction and learning. Most of us are now immersed in a world of e-mail, asynchronic message posting systems (such as electronic forums and bulletin boards) and synchronic, multi-user chat rooms. These technologies are catalyzing the creation of hybrid discourse that reflects some of the features and informality of spoken discourse, but the formality of written discourse. These electronic environments, especially asynchronic ones, make thinking visible in ways which oral conversations are not because there is a printed trace of the discussion. Indeed, emotional dimension of messages can be made even more explicit than they might be in face-to-face conversation (…). The print-based trace of discourse creates opportunities for both participants and discourse analysts to reflect on the interactive construction of meaning from psychological, sociological, and cultural points of view. The existence of electronic environments for communication allows interactions to transcend traditional time and place constraints (p. 12).

The field of foreign language learning and teaching also incorporates these new challenges in the scope of interest for reading research taking into consideration:

(a) The learners' needs resulting from global communication: electronic media in reading; coping with intertextuality; the need to learn fast reading under time pressure (Whittaker, 2003); fast text evaluation and critical reading (e.g., Wallace, 2003);

(b) English as a tool for studying and professional activities: reading to learn from text, especially fast and thorough comprehension; strategies for organization and retention of content; and reconstructing content units from multiple texts (e.g., Alexander & Jetton, 2003).

From this array of issues I have selected those that are important in EFL teacher education, especially the need to formulate criteria and points of orientation to provide prospective teachers of EFL with *conditional knowledge* for reading-task design. According to Schraw (2006), "[c]onditional knowledge refers to knowing why, when, and where to use a particular strategy. Individuals with a high degree of conditional knowledge are better able to identify the demands of a specific learning situation and, in turn, select strategies that are most appropriate for that situation"

(p. 251). Mayer and Wittrock (2009) apply this concept to both declarative and procedural types of knowledge. According to Pressley and Harris (2009), such knowledge is a very important part of metacognition, which controls our cognitive processes and determines the effectiveness of our thought and action. This understanding is very close to the notion of teacher's expertise (Johnson, 2005).

In this article reference is made to the following sources of orientation:

(a) Verbal communication, a universal human phenomenon defining our understanding of language use in sociocultural situations in which people are active agents, involved with their bodies and minds; this point of reference justifies emphasis on the role of the participants' communicative mental set, including their mental models of situations, people and events as well as other resources based on the creed that cognition is recognition.

(b) Reading comprehension. I understand this as a specialized but integral component of verbal communication. It is the use of language by the addressee to reconstruct meaning from written discourse in a communicative situation; this point of reference justifies my emphasis on the scope of reading comprehension (i.e., decoding and understanding), which is composed of more elementary psycholinguistic processes, as well as on the recognition of the dynamic and strategic nature of computing meaning, especially the pervasiveness of inferring, the distinction among the literal, figurative and relational meaning; as a result, resources activated for the task by proficient readers of English as a foreign language are qualitatively different from the specific deficits and needs of EFL learners, who treat reading as a source of language input and reading practice for the development of the reading skill.

(c) Considering the attentional limitations of our information processing system, tasks are the inevitable unit of reading activities. The nature of reading justifies the structure of the reading task, constituted by the learner and his or her communicative mental set including the resources activated for and available to the task (mental energy, mental representations and processing operations), the text of a certain genre imbedded in a certain communicative situation, the purpose of reading and the conditions of the task. The relational nature of EFL tasks, especially reading, justifies our focus on supplementing the deficits in the learners' mental representations retrieved from memory and eliminating their deficits in automatic processing in order to develop the skill of reading of extended discourse.

(d) The natural sequencing of reading tasks, i.e., pre-reading, reading and follow-up, can be used to systematize didactic functions and options resulting from the nature of mature reading in English as well as the specific ramifications of EFL reading, such as the learners' deficits and needs. This justifies all of our EFL learner-oriented reading task design adjustment strategies.

The goal of this article is to integrate these sources of orientation into a coherent conception which can be used for deriving rational/professional principles of reading comprehension task design and outlining a range of activities following from these principles.

2   Verbal Communication as the Context for Reading

Wallace (2005) finds the narrow conduit model of communication insufficient and includes selected features of communication as components of the reading process (e.g., the sociolinguistic roles of the readers). In contrast, I wish to emphasize the hierarchical arrangement of verbal communication. This is a more inclusive concept, which can be brought to bear on reading as well as on auditory comprehension, speaking and writing. Different kinds of reading activate various verbal communication processes. This is much more profound than the conduit model, and follows from its more general nature. The purpose of verbal communication is to facilitate the *flow of information* in human networks and sustain their existence for as long as they are useful and necessary. At the same time, the specific nature of a given human network, i.e., a group and its culture, determines the specific nature of its communicative flows, as can be seen in specialized communication for professional or expert purposes. Communication, especially verbal communication, is constituted by transactions in meaning aimed at satisfying all human needs, basic, organic, material and practical as well as not-so-basic, material or practical, such as bonding—family, group, ethnic bonding—as well as cognitive curiosity and emotional, religious and aesthetic needs. Social relationships engage us in our various communicative and/or professional roles with the aim of satisfying these various needs. All of the above factors are reflected in various *discourse genres* functioning in different cultures (Grimshaw, 2003).

The reader/learner is regarded as a living organism with human cognitive resources. The nature of verbal communication is afforded by the distinctly human cognitive locus of communicative operations and processes, i.e., human information processing with its subsystems of perception, attention, memory, anticipation, retrospection, planning, monitoring, and feedback, as well as controlled and automatic processes which operate on mental representations requisite in (verbal) communication and reasoning. Verbal communication is an interaction, which implies mutual influence, between the sender and the addressee by means of the production and comprehension of verbal messages in speech and writing, in numerous specialized sociocultural situations in various domains (Grimshaw, 2003; Smith & Kosslyn, 2009). Processes of verbal communication are localized and executed in our information processing system. At the most fundamental level, they take the form of information processing and involve the registration, recognition and categorization of information based on the agent's mental representations and interpretation for meaning, which result both in mapping new information in our memory as well as changes in our existing mental representations, some of them fairly durable (Smith & Kosslyn, 2009). Information processing in our brain has metabolic as well as neural correlates. Human information processing specializes in cognitive processes that enable us to observe and adapt to our environment, learn intentionally and unintentionally, form concepts, solve problems, reason, engage in abstract thought and use symbols, such as language, musical notation and numbers,

and, most importantly, construct and participate in verbal communication (Adler & Rodman, 2009; Dakowska, 2015). Reading as a prevalent form of verbal communication is the norm rather than the exception in our *literate culture*.

2.1　Cognition—Including Verbal Communication—Is Recognition

In order to function cognitively in our sociocultural environment people constantly engage in information-processing which matches bottom-driven stimuli with top-down (mental) sources of relevant clues. Cognition is recognition, which is to say that top-down and bottom-up processes must inevitably interact in all forms of human information processing, not just verbal communication. This applies to the reading process. Verbal communication is a constitutive human property: all human beings, except for anomalies, can do it; they are born with the instinct to communicate (Clark, 1996). Verbal communication is a universal—natural and cultural—phenomenon, a complex, highly specialized interplay of human interactive operations that are of the essence in our relationships, and essential to our well-being and survival as a species (Whaley & Samter, 2007). Every adult language user has vast experience and knowledge of how verbal communication works in its various situational contexts, domains, and specialized varieties (Grimshaw, 2003; Schober & Brennan, 2003). The learner acquires the ability to act in the role of sender, i.e., to produce discourse, and in the role of addressee, i.e., to comprehend discourse in communicative encounters. In addition, depending on the age, the learner can make use of his or her reasoning abilities to reflect on various aspects of verbal communication and the language code. Reading is an instance of verbal communication in which our activation of the *communicative mental set* is a natural subconscious response to a reading task.

2.2　The Role of Meaning in Verbal Communication Including Reading

The historical meaning of 'communicate' is 'to unite', 'to be one', 'to share a point of view'. A teleological explanation of verbal communication would have to emphasize the exchange and sharing of meaning, be it conceptual, factual, propositional, pragmatic, social/relational or all of the above. The participants' efforts and coordination are instinctively aimed at the search for meaning and sense. At the most elementary level, a very complicated coding system, made up of phonemes or graphemes, is used by one speaker, the sender, for distal stimulation of another speaker,

the addressee, in order to provide him or her with more or less precise instructions which must be decoded for meaning, interpreted and evaluated by him or her, thus revealing the sender's communicative intention. Both participants are active in constructing and deconstructing meaning, i.e., the communicative intentions at the center of their interaction. Givon (2005, p. 120) defines communication as a "dedicated signaling system whose purpose is to induce others to comprehend what is on one's mind". As a form of cooperation, it requires an overlap in the participants' respective mental representations of the world and some perspective on/insight into the interlocutor's state of beliefs and intentions (Schober & Brennan, 2003). This is what we call 'shared background knowledge', as indispensable in verbal communication as in any other form of human interaction (Zwaan & Singer, 2003). Human communicative behavior would be inconceivable without an on-line—at least subconsciously—mental model of the interlocutor's dynamic intentional and epistemic states. Meaning is the *causal factor* of verbal communication, which takes place when A always follows B, and B never occurs without being preceded by A. Communicative intention, i.e., having something to say to the other person, is what makes verbal communication 'go round'. First and foremost, meaning is not in texts or in situations, but in the participants' minds. The motivation to sustain communicative relationships over time is to construct meaning rather than the mere meeting of one's goals and needs through other people (Fogel, 1993).

2.3 Kinds of Communicative Events Including Reading

This condensed characterization of verbal communication including reading refers to what in our world is a whole spectrum of specific instances and varieties of communication, which range from interpersonal to public, mass and global communication. The map of verbal communication may be systematized for the foreign language teaching purposes with the help of such criteria as domains, (areas of human activity, including professional and other sociocultural activities); characteristic topics and content; setting; the roles of the participants; the discourse types involved; levels of formality; special terminology and other lexical material; typical speech acts in spoken and written language and categories of communicative function. Each of these is a sociocultural category with its characteristic roles, topics, terminology, norms, conventions, schemata, scenarios and discourse genres (Schober & Brennan, 2003). Knowing (i.e., having mental representations of) the norms, conventions and scenarios characteristic of a given group/culture enables the speaker to *orient himself or herself* and predict outcomes, thereby reducing the communicative uncertainty (and anxiety) characteristic of unpredictable situations (Grimshaw, 2003; Steffensen & Joag-Dev, 1998).

2.4 Whole-Person Involvement in Verbal Communication, Including Reading

People participate in verbal communication with their bodies and minds. Their cognitive, volitional and emotional systems, their anxiety, imagination and creativity, personal culture, attitudes and expectations, stereotypes and prejudices are all involved, but first and foremost are their identity, personality, self-confidence, self-esteem, assertiveness, motivations and stamina for cognitive work, not to mention their sociocultural personae defined by gender, age, social status and roles, as well as previous experience and knowledge of the world. These individual personality and cognitive factors have a positive as well as negative influence on our communicative behavior and chances of successful attainment of communicative and other goals. Last but not least, there is an influential cognitive factor involved in verbal communication, namely the individual quality of our cognitive equipment, in other words the quality, acuity and speed (Gardner, 2005) of our information processing, i.e., our individual ability to make fine discriminations and associations, especially of language information, during communicative encounters. This variable quality translates into our individual level of intelligence and aptitude.

Speakers use their cognition and emotions, their body language, their perception of the environment, their mental imagery, and their resourcefulness in the search for meaning and sense. In other words, speakers process not only linguistic clues, i.e., discourse, but paralinguistic and non-linguistic clues about their interlocutors, such as ethnic background, sex, age, physical appearance, style of dress, body language, tone of voice, facial expressions, posture, and all the relevant environmental information. These clues enable us to determine the role and status of our interlocutor as well as the character and purpose of the event, which significantly influences the flow of communication (Eysenck & Keane, 2010). As has been pointed out above, discourse is deeply imbedded in its various contexts so that participants must resort to numerous, not only linguistic, knowledge sources (Schober & Brennan, 2003). In the case of reading, some clues are more relevant than others, which follows from the situational context of reading, especially the characteristic properties of written language (for a list of differences between spoken and written language, see Dakowska, 2015).

3 The Nature of Reading

It has been stressed that the whole point of verbal interaction is to understand (reconstruct) the intention of the interlocutor: meaning and sense are of paramount importance and are the essential objectives for people engaged in verbal interaction. The psycholinguistic processes which take place in the addressee's mind in this search for meaning and sense are discourse comprehension processes, specialized for written discourse (Schober & Brennan, 2003). Discourse comprehension, like

production, involves more than linguistic knowledge, i.e., knowledge of L1, L2 and other languages (Just & Carpenter, 2006; Kintsch, 2006; Rumelhart, 2006). Language users also activate their knowledge of the world in general, of social situations and cultural conventions; of discourse genres (Swales, 1990); of discourse schemata and previous communicative encounters; of technical and specialized knowledge; and of para- and non-verbal clues on the printed or otherwise displayed text (e.g., illustrations and charts, use of font size and graphic layout, sections and columns, paragraphs and titles, etc.) (Kintsch, 1998; Zwaan & Singer, 2003).

Meaning is not given in a ready form. Rather, it is actively constructed, or 'computed', by the sender, and reconstructed by the addressee. The effects of the sender's computations may be expected to differ among various readers because of their different resources and motivations for reading. Readers make use of all the information they can get, linguistic and non-linguistic alike, to compute the communicative intention coded in discourse form. Meaning is reconstructed in the situational context of the communicative act. Of particular importance here is the relationship and the attitudes of the participants. Since verbal communication is dynamic, goal-oriented and strategic, it must be classified as a form of human intelligent (problem-solving) behavior. Foreign language learners in educational settings approach the task of reading with the implicit conviction that its essential goal is the construction and reconstruction of meaning and sense. They instinctively activate their communicative mental set, including their cognitive curiosity to find out something interesting in the process of reading, which is the reason why non-trivial content, understood as an organized network of propositions, becomes a very important didactic category supporting memory processes and motivation. However, EFL learners differ from proficient (or expert, rather than native, see Wallace, 1992, 2005) users because they—by definition—are characterized by various knowledge deficits in all the areas of knowledge and mental representations which are typically activated during reading.

3.1 Knowledge, Skill and Discourse in Verbal Communication, Including Reading

Language use in verbal communication, including reading, makes up a recurrent cycle in which we must distinguish three qualitatively distinct "states of the matter". They are: mental representations (vastly distributed knowledge networks), behavioral manifestations (fluent language skill); and the external outcome (relatively stable discourse, i.e., the communicative output of production and the input for comprehension). Reflection on the development of EFL reading is incomplete if due consideration is not given to each of these states because, while they determine one another, each is special. Each presents unique cognitive challenges to the EFL learner and requires special care, practice and cultivation strategies in learning how

to read. Knowledge representations are enriched by extensive reading, which enables the EFL learner to mentally re-describe or represent extensive form/meaning mappings needed in the process of decoding written discourse; skill in reading is developed through practice (Hudson, 2007), which is indispensable in the integration of various operations at the hierarchical levels of reading comprehension. Learners need sustained discourse material to mentally represent various coherence and cohesion devices working within and above clauses as well as above sentence level (Zwaan & Singer, 2003).

3.2 The Role of Anticipation and Retrospection

In order to reduce the degree of uncertainty in communicative interactions and overcome people's attentional constraints, readers, like any other participants in communication, anticipate. They look ahead for information to come, basing these predictions on their relevant previous knowledge activated from permanent memory for this purpose. They also look back at previous encounters to recall relevant information and better orient themselves. As has been pointed out, all kinds of knowledge, not just of language forms, are activated and tapped for this purpose. After all, cognition, including verbal communication, is based on recognition. These assorted clues are retrieved for the purpose of the communicative act and made available in the working memory as contexts of interpretation for the information to come. The predictability of some of the communicative elements goes hand in hand with the state of orientation of the speakers in the communicative event. Anticipations and retrospections refer to various aspects of communicative acts, their cultural properties, the participants, the situations, the topics, the contents, the discourse genres, the relevant previous communicative encounters, and to the meta-communicative and meta-lingual knowledge helpful in regulating communicative behavior and interactions on subsequent occasions. All participants, including foreign language learners, must activate this communicative mental set. No reading comprehension in the practical sense can take place without an attempt to perform the requisite operations and strategies.

3.3 Strategic Use of Clues Relevant in Reading Comprehension

As has been pointed out, each communicative encounter taps various sources of information; their interaction and seepage are a norm which should be accepted as a distinctive feature of verbal communication, including reading. Since specifically lingual information is processed in reading no less than in any other verbal communication, the processing agent makes use of all the mental and environmental

sources of information relevant to the message, especially clues which come from the participants in the communicative act in its situational context. In other words, the clues are not limited to lingual, i.e., purely arbitrary forms of the language code, but include paralingual, i.e., mixed analogical/arbitrary information, as well as non-lingual information, which may be purely analogical, like images, or arbitrary but in a different code, (e.g., numbers, logical symbols, musical notation), which accompany and enhance comprehension and production. These clues are selected, integrated and used strategically, which is to say: depending on the purpose, resources and optimality conditions in the given situation.

The assorted types of information are usually available in more than one modality. In the case of reading this modality is primarily, but not exclusively, visual, consisting of graphemic forms. Some participation of auditory representations is also found at various stages in the development of reading ability. The function of our working memory is to integrate, coordinate, synthesize and translate these various sources of information so that we can decode meaning and, most of the time, generate further, more abstract meta-modal representations. Wilkins and Wakefield (1995) talk about amodal, cross-modal, supramodal, multisensory, modality-specific and modality-free representations. Fogel (1993, p. 72) explains that "cross-modal perception occurs when information perceived in one modality is translated into perception or action in another modality". Cross-modal perception is the norm rather than exception in verbal communication, including reading, as all kinds of clues are processed for meaning. The only distinctive characteristics of reading come from situations and discourse genres that call for a special selection of clues. Scientific articles, for example, require activation of extensive technical knowledge representations in their propositional form for which all kinds of graphs and tables with numbers provide additional comprehension clues. Tourist brochures and leaflets, on the other hand, make use of attractive colorful pictures and photographs to stimulate our imagination. In reading comprehension, as in verbal communication in general, these interacting sources of information from different modalities are integrated and elaborated on the 'desktop' of our working memory, which is to say, they are converted into a series of operations constrained by our attentional limitations.

3.4 The Nature and Extent of Reading Comprehension

The ultimate goal of participants in a communicative act, including reading, is to make sense of the messages in the context of the situation. To do this they apply their ingenuity to all the available clues. It is clear that ingenuity, imagination, and resourcefulness have a role to play and should be taken into account and fostered in foreign language teaching. Reading is an act of decoding, understanding, interpreting and evaluating a message. These are highly demanding decision-making strategic operations, completely different from finding new words in the text,

matching new grammatical forms with their explanations and skimming and/or scanning.

In comprehension the role of the reader is to compute literal and figurative meanings, by considering various options, visualizing situational models of discourse and participants, and drawing on various linguistic and non-linguistic knowledge sources. This is done in order to reconstruct, infer, interpret and evaluate meaning and to reconstruct the communicative sense of the author's intention. Processing communicatively relevant information takes place in the reader's communicative mental set, which involves emotions, imagination, imagery, creativity (in the sense of ingenuity), flexibility, productivity (of thought and visualization), intellectual sensitivity, metaphorical thought, unexpected, fresh associations, mental transformations, and cognitive curiosity, i.e., the drive to ask and answer questions.

To extract meaning and sense from communicative interactions cooperative comprehenders may go out of their way to consult all knowledge that seems relevant, especially cultural knowledge, of both the native and the target culture. In this way, verbal communication taps individual resourcefulness and flexibility. It presupposes personalization, visualization, the construction of mental situation models, cooperation, and the taking into consideration of the addressee's perspective in comprehension as well as production (Zwaan & Singer, 2003). I understand reading comprehension as a process of computing the writer's intention from his or her detailed instructions in the form of a text. With saccadic eye movement, we travel along lines of text. The saccadic jumps divide the text into clauses fitted into the more global organization of the text, which must also be recognized by the reader. In this process, the reader uses such clues as spaces, punctuation, morphemes, lexemes, word order, function words, derivational prefixes and suffixes, paragraph structure, bold print, subtitles, section numbering, etc. When graphemic representations are decoded, which takes fractions of seconds, they are pushed from the center of our working memory to make mental space for the semanticization of the next sequence/clause. Proficient readers are more likely to remember the meaning of what they read than the form. We can distinguish the following sub-processes relevant in reading comprehension:

1. *Parsing* (van Gompel & Pickering, 2009) in discourse comprehension refers to recognizing the syntactic structure of the material being processed. Parsing involves segmentation into clauses and the significance of word order. This process is incremental in that the reader incorporates each word as it is encountered into the preceding syntactic structure. This allows the reader to "referentially plausible parses and exclude implausible ones" (Trueswell & Gleitman, 2009, p. 635). It involves pattern-recognition, pattern completion and the elimination of unlikely alternatives. Although non-syntactic information has a very rapid effect on sentence processing, the process of decoding must start with a strong syntactic basis: the reader must recognize the material's structure. This recognition determines the reader's assignment of propositional and referential meaning. As Trueswell and Gleitman (2009) point out, language

learners are innately predisposed to assume that discourse refers to the real world. For this reason, they attempt to interpret the referential meaning of syntactic characterizations of analysed input from the very beginning.

2. *Semanticizing* (Palmer, 1968) is the impulse to assign meaning to language forms. It occurs whenever we see a piece of text written in a language we are familiar with; semanticizing language material in the form of discourse is different from assigning meanings to isolated unknown words because in discourse the context defines the status and function of individual elements. Specialists who investigate reading comprehension stress that the meanings of words are not given in the text in some ready form; they must be reconstructed in the context, i.e., our mental image of the situation presented in the text. In other words, we do not pick ready information regarding the meaning of a given item from our mental lexicon, but *compute* it, i.e., work it out for the specific context, eliminating the unlikely possibilities to arrive at the most suitable interpretation. The meaning we look for in a given clause depends on the morphosyntactic structure we have assigned to it. This is the least subjective stage of comprehension because here we are largely confined by the language code. Negotiation of meaning between the learner and the teacher, with prompts and feedback at this stage, is inevitable in view of the language learner's deficits because it enhances the learner's processing precision (Kintsch, 2006; Rumelhart, 2006; Sabatini, Albro, & O'Reilly, 2012).

3. *Reconstructing the communicative intention* takes place at the more global level of the text in the light of the communicative situation and various sources of knowledge perceived as relevant to the task at hand; at this stage the comprehender is trying to reconstruct the communicative intention of the writer, which is not available in a ready form; it must be reconstructed on the basis of the local meanings, especially various coherence and cohesion devices and situational clues used by the writer. Different readers, because they know different things, have different interpretations (Kintsch, 1998, 2006).

4. *Personalization and evaluation* refer to the way in which we perceive the communicative intention from the point of view of our own values, convictions and ideas about the topic. The reader responds to the writer's intention in an almost dialogical form. Evaluation may seem to be the most subjective of the comprehension processes but this is no reason for concern provided the reading material has been satisfactorily decoded; this subjectivity reflects the fundamental nature of human communication (Nation, 2009).

The above enumeration is not intended to suggest that we engage in these processes in isolation or in a serial order, but to emphasize the depth of comprehension that provides grounds for strategic selections of relevant aspects of comprehension to focus on. I also wish to emphasize the interaction between the teacher and the learners, in which the learners are actively involved in monitoring their own comprehension processes, asking questions, identifying unknown items and searching for or inferring their meaning. The better they comprehend the material, the longer and more accurately they remember it. The better the storage of the given

communicative episode, the better it can be transferred to other tasks and activated for use in other communicative episodes. After all, thorough comprehension is indispensable in designing activities which must naturally grow from the communicative situation imbedded in the text, i.e., in accord with the real purpose for which the text was written. This may help the learner to perceive the reading tasks as interesting and relevant to him or her personally. Memorable reading activities must involve the text as part of real communication rather than merely an object of lexical and grammatical analysis. Syntactic parsing, which has been recognized as very important in determining discourse comprehension, may be regarded as the essential basis of reading, but certainly not the target point of attainment in a reading task. On the other hand, shallow reading, such as skimming, scanning and superficial comprehension activities with multiple-choice questions cannot be regarded as conducive to foreign language learning, especially English as a foreign language which is characterized by its wealth of syntagmatic constructions and idiomatic expressions (Table 1).

Table 1 Processes involved in reading comprehension: from verbal communication to reading

Reading comprehension as a special case of verbal communication
1. The role of the communicative mental set: the participants' mental representations of the interlocutors in their situational context and the relationship between the sender and the addressee in reconstructing meaning; the role of sociocultural norms, scenarios and schemata as well as discourse genres and lexis for the given domain
2. The significance of the whole-person involvement, body and mind (the participants' culture, cognition, emotion, imagination, knowledge of the world); strategic use of all the clues we can get in decoding meaning; the role of non-verbal and para-verbal clues
3. The activation of conventional cultural as well as linguistic coordination devices to 'weave the thread of discourse', available to the sender to construct, and the addressee to reconstruct as a linear product while making it coherent and cohesive at the same time
4. Various, not just linguistic, knowledge sources strategically activated for the purpose of comprehension, including previous communication, knowledge of discourse genres, knowledge of the world and the subject, current events and the people involved
Processes involved in reading

1. From written discourse to communicative intention:
  – Parsing, i.e., identifying forms in the message and assigning them structure
  – Assigning/matching meaning to the forms in the clause structure (semanticizing)
  – Reconstructing global discourse meaning on the basis of discourse cohesion and coherence markers as well as all other knowledge sources (interpretation)
  – Evaluating the discourse meaning in the context of our knowledge of the situation, the author, knowledge of the world, attitudes, goals and values, reaction/response to the ideas in the text (evaluation)
  – Identifying the content and the relationship components

2. The use of inferencing in comprehension to bridge the verbalized elements
  – At the lexical level
  – At the text level

3. Processing figurative language
4. Monitoring the process of comprehension

4   The EFL Learner's Perspective of Reading

For proficient speakers reading is not hampered by reduced redundancy conditions: their natural reaction to the text is to act as addressees of the text, i.e., to extract some factual information, critically evaluate the ideas and respond to them. Learners of English as a foreign language, however, use the text as input for target language learning as well as for learning the factual content. This is to say, they use the text as the source of information about the way in which proficient speakers express their ideas in the target language, especially its lexis, syntactic forms and constructions, idiomatic expressions and discourse plans and conventions. Although language learners cannot afford to ignore the communicative impact of the text, especially its content, which functions as the connecting tissue for language forms, they must exploit it as input for language learning. While proficient readers treat language form in a utilitarian manner, using it to get to the meaning and subsequently pushing it aside (what they store in their long-term memory is meaning and sense), language learners can benefit greatly from remembering meaning as well as form at different levels of organization. This knowledge will be necessary in further reading tasks.

Strategies of dealing with language learners' reduced redundancy condition include eliminating the difference in the expected level of knowledge for the task by (e.g., Nuttall, 1996; Nation, 2009; Grabe, 2009):

(a) making learners more competent for the purpose of the task, i.e., providing them with informational input as well as guiding them to retrieve useful items from their long-term memory to make them aware of what they already know;
(b) giving them more time to perform the necessary operations usually done automatically by proficient readers;
(c) Allowing them to read the text more than once so they can focus on various aspects of the material.

As a result, we can identify the following options:

1. *Increasing background knowledge*. Considering the highly interactive nature of reading, the EFL learner's subjective difficulty may be attributed to deficiencies in any and all of the knowledge types activated during the process of reading. The ideas (content) may turn out to be quite complex and hard to understand, as in English for Specific Purposes, for example, regardless of the language form in which they are expressed. This difficulty may be eliminated by a variety of pre-reading activities used in the EFL classroom: providing input for the task in the form of factual information or brainstorming, recalling and sharing information in the form of a classroom conversation, or thinking aloud about the topic of the text, and last, but not least, using external resources. It is beneficial for the student to perceive and become aware of the discourse plan before the process of reading because this is the structure which holds discourse information as a more lasting memory trace and can be used as a familiar discourse plan in production.

2. *Enhancing the reading process*. The reading process may be facilitated when the reader approaches the task in a state of anticipation for what is to come, based on previous knowledge or, as Oller (1972) calls it, the state of expectancy for successive elements, which is a function of the reader's knowledge of certain communicative and linguistic structures and their arrangements. This readiness for the information to come is usually accomplished by pre-reading activities whose purpose is not to kill curiosity about the text's content, but to stimulate it and eliminate the reader's anxiety by showing him/her that they can cope. The reading process may also be enhanced by on-going clarification and negotiation of meaning between the learners and the teacher. As a result, EFL learners reach accurate/exact comprehension with the help of more competent readers.

3. *Enhancing focus on discourse form*. Proficient readers differ from language learners in that they have acquired automaticity in processing the lower-level (decoding) aspects of the reading process, such as parsing and segmentation. As a result these processes do not take up proficient users' attentional resources and run smoothly. The proficient reader's eyes fixes on a clause only for fractions of seconds before moving on to a new clause. As a result of fluent reading, meaning rather than form is stored in permanent memory. Because of this, proficient readers can reconstruct verbatim or almost verbatim the form of the text on the basis of their available knowledge resources. It is harder for the EFL learner, unless the focus is on a deliberate learning in reading task. Since written discourse is regarded as language input, strategies which aim at learning discourse form (analysing the plan, inserting titles for paragraphs, deliberate commitment of lexical phrases from the text to memory, close tests, retelling, summary writing, parallel writing) are indispensable.

4. *Enhancing global comprehension*. The learner's orientation in the whole task is not as easy as it is for proficient readers because insufficient automaticity of processing the local aspects of the task means greater demands are made on their working memory resources. Therefore, they may not have any resources left for dealing with the more global aspects of the task. To eliminate this difficulty, one can use the following strategies during and after reading: focus on the text's genre, introduction, development, conclusions, plan, topic sentences, section subtitles, interim summaries, the main idea in a highly condensed form, etc. Helping the learner to perceive the overall structure of the text has a twofold advantage: (a) knowledge of the structure will help in the retention of language and content information (Zwaan & Singer, 2003) and (b) it will itself turn out to be useful in subsequent reading tasks as knowledge of discourse types may be transferred to other receptive and productive tasks. Once the genre is familiar, comprehension of similar texts is facilitated (Hudson, 2007) (Table 2).

In the long run, reading tasks based on these strategies and developed in line with the teacher's ingenuity should enable the learner to do the following:

1. Engage in the task with the entire person, body and mind, especially the imagination, to build a mental model of the situation and relate to the message.
2. Bring all the relevant knowledge to the task at hand.

Table 2 Strategies for enhancing the reading process adjusted to the EFL learner

Processes in reading comprehension	Enhancement of reading comprehension suitable for the EFL learner
Defining the discourse context, especially the communicative situation, the content and the relationship of the people involved, as well as the purpose of their communication, defining the writer's agenda	Recalling relevant information about various aspects of the text and the situation in order to recognize the type and significance of the encounter, and to make this information available in working memory and explicit for the purpose of other tasks
Formatting (structuring) the text at the level of clauses, paragraphs and globally, while all the time interactively assigning meaning to the processed material, deriving global meaning from discourse components	Reading more than once, taking more time to read considering the fact that more information is new to the EFL learner, focusing and elaborating on various important points, especially concepts, negotiating meaning with more knowledgeable language users to reach exact comprehension, etc.
Perceiving elements of the text in their mutual discursive relations, bridging inferences, retrieving the plan, genre, main and supporting ideas, computing literal versus figurative meaning, perceiving the text as a whole, monitoring comprehension	Strategies derived from intensive reading, including analysis of form, discourse markers, coherence and cohesion at the morpheme level, content coherence; bringing world knowledge to bear on coherence and cohesion, domain-specific terms, elaboration of content, cultural input from the teacher, cross-cultural comparisons
Building a mental model of the situation in the text with the use of imagery to link the content with the reader's knowledge of human situations and conditions; learning factual content from the text	Reconstructing and making reference to an explicit model of the situation based on factual and discourse knowledge; encouraging inferencing processes at discourse and lexical level, bringing cultural knowledge to bear on the task
Relating to the communicative situation in the text and interacting with the writer in the role of the sender, personalizing the content, perceiving the text as a perspective of events/ideas and its critical evaluation	Analysis of discourse genre, especially its structure, summarizing, retelling, parallel writing, précis writing, responding to the text in the role of the sender, etc. in order to retain the information in the text as a whole

3. Make active and strategic use of all the clues, verbal and non-verbal alike, to orient the learners in the nature and meaning of the text.
4. Process the text with a view to its language forms, structure and organization, especially its coherence and cohesion devices.
5. Recognize larger rhetorical parts, process figurative language and other stylistic devices.
6. Distinguish between fact and opinion, the main point and examples, irony and sarcasm.
7. Infer information which is not expressed explicitly. Infer the meaning of some unfamiliar words from context, but use a dictionary where necessary for confirmation.

Table 3 Intensive and extensive reading as two poles of the spectrum of EFL reading activities (based on Dakowska, 2005)

Intensive reading	Extensive reading
Size of the material: shorter passage, often a segment of a bigger whole, selected by the author of the program	Size of the material: book, story, essay, novel, often self-selected by the student on the basis of interest and variety
Pace of the task: rather slow with repetition, intensive interaction between the teacher and the student to negotiate meaning, e.g., input for the task, feedback, comprehension checks, analysis, consulting external sources of information, etc.	Pace of the task: fairly fast pace of reading, typical of communicative fluency; the learner's knowledge deficits are compensated for by ample context; the task is mostly performed as individual activity, a form of teaching oneself how to read
Function: serves as a learning experience for the development of reading comprehension. Memory trace is the effect of precise processing	Function: serves as a communicative experience providing language input in written form. Memory trace is the function of the more global (meaningful, complete) unit of the material
Benefits: helps the learner to learn how to read in a foreign language and practice reading strategies, learn vocabulary and discourse types, and deliberately commit information to memory	Benefits: significant source of cultural and factual knowledge and incidental vocabulary acquisition; the interest factor performs an important motivational function while enhancing communicative autonomy

8. Read interactively, i.e., evaluate the writer's intention and respond to it. Read with thorough comprehension, critically, and insightfully.
9. Monitor his or her own comprehension process and check for accuracy in comprehension.
10. Use the text to learn and study its content.

The spectrum of options for the development of reading is best illustrated as a continuum bridging intensive and extensive reading (Nation, 2009) (Table 3).

4.1 Tasks as Units of Reading Comprehension Activities

The most suitable term for a unit of activity which shares criterial attributes with episodes or events of verbal communication, including reading comprehension, is the task. The task is a unit of purposeful human activity, in which we perceive a problem-space, access information for dynamic decision-making in order to process the input material, and accomplish a desired goal, e.g., develop a solution (Dakowska, 2015). Naturally, the task is a unit of verbal communication. Episodes of verbal communication, i.e., tasks, are embedded in situations and they are meaning-oriented, i.e., involve on-line processing of environmental, verbal and non-verbal information, and the activation of knowledge from the learner's

Table 4 Options and functions in designing pre-reading, reading and follow-up in EFL reading tasks

Pre-reading	Reading	Follow-up
Functions of pre-reading	Functions of reading	Functions of follow-up
To facilitate the reading task · To recall relevant knowledge · To stimulate curiosity in the topic · To activate the relevant schemata · To reduce uncertainty/anxiety · To predict based on the available clues · To link to personal knowledge · To determine the situation and discourse genre · To otherwise enhance the coping potential	*Thorough comprehension and retention* · Recognizing the structure of discourse · Computing literal and figurative meaning · Retention of form/meaning mappings including lexical material and discourse schemata · Retention of propositional content (factual, cultural) · Learning from the text · Developing inferencing abilities · Developing critical reading ability	*Enhance consolidation by communicative responses* · Personalize, · Evaluate respond critically · Infer hidden meanings and agendas · Link content to own knowledge · Evaluate the global aspects of the text · Appreciate humor sarcasm, irony · Elaborate on the cultural information · Link with assorted productive tasks · Elaborate and read 'between the lines'
Pre-reading	Reading	Follow-up
Options in pre-reading	Options in reading	Options in follow-up
· Brainstorming · Explaining the title · Class conversation · Eliciting specific information with questions · Eliciting general content knowledge about the topic · Providing teacher input for the task · Part/whole task strategy · Studying the introduction · Recognizing the plan/the genre	· negotiation of meaning between the teacher and the learners · clarification questions · use of translation · focus on section titles · comprehension questions (general and specific) · true/false questions · multiple choice questions · filling in tables and charts · highlighting · note-taking	· reconstructing the plan · providing titles of paragraphs · summary or précis writing · writing a response to the writer · providing an alternative/opposite point of view · parallel writing · link to content knowledge in other texts · elaborate on the terminology/lexis

long-term memory to build a mental model of the situation and the interlocutors under attentional limitations. The only constraint in the use of the task as a universal unit of communication is developmental: below a certain age children are unable to perform deliberate goal-oriented operations (Table 4).

5   Conclusions

In the above systematization of options in developing reading in EFL for learners, the points of orientation that have been used include reference to reading as an integral part of verbal communication and a specialized form of human information processing. This perspective supports our understanding of reading as language use in sociocultural situations and our understanding of the learners as agents in the process of reading, who use all their environmental and mental resources—their bodies and minds—justifying the role of their communicative mental set, including mental models of situations, people and events as well as the fundamental course of their reading operations targeted on meaning.

Reading comprehension has two fundamental and inextricable aspects: decoding and understanding (Dakowska, 2005). Decoding makes use of target-language forms, i.e., it is a genuinely form-focused operation, not to be underestimated in the case of EFL learners, whereas understanding operates on propositional representations derived via decoding; as such, it may be supported by assorted meaning and knowledge sources and problem-solving/reasoning operations available in reading. Furthermore, the scope of the reading problem is defined more specifically by the contributory interacting psycholinguistic processes involved in reading, i.e., parsing, segmentation, semantization, interpretation and evaluation. This understanding emphasizes the dynamic and strategic nature of computing meaning and the pervasiveness of inferencing, all at the levels of literal, figurative and relational meaning (Zwaan & Singer, 2003). It is also easy to appreciate the difference between the extensive potential resources activated by proficient readers of English and the inevitable deficits and needs of EFL learners, who treat reading as a source of language input and reading practice. These inevitable deficits—both in terms of declarative and procedural mental representations—put EFL learners—and indeed all learners—at a disadvantage from the point of view of their recognition resources, which affect primarily, but not only, the decoding stage in reading comprehension.

Because of the situated, episodic nature of reading understood as a communicative event in our sociocultural context, as well as our attentional limitations, the inevitable unit of reading activities is the task. The nature and structure of EFL reading tasks is far from arbitrary. It is determined by the following components: the reader, i.e., the learner and his or her communicative mental set including resources activated for the task (mental energy, mental representations and processing operations); the text of a certain genre; and the purpose of reading it. This highly relational nature of EFL reading tasks is justified by the creed that cognition is recognition, i.e., it is determined by the reading material and its implicit situational context, the learner's coping potential and the conditions of the task. This framework outlines the scope of the problem of task adjustment strategies for EFL reading by learners as defined by the type of discourse for reading and its implied communicative situation (familiar or unfamiliar to the learner); the EFL learner's available resources (mental representations and environmental clues); and the

conditions of the task, such as time available for reading, the number of repetitions available, part-whole task strategy, the sub-goal of reading, and, last but not least, the specific input and the teacher's guidance for the task.

The stages of the reading task—pre-reading, reading and follow-up—result from the nature of EFL reading, the nature of reading in general, and the specific EFL parameters, such the learners' deficits and needs; and from EFL learner relevant reading task design adjustment strategies. The teacher has a whole spectrum of options which serve specific functions at each stage and which may be selected for specific functions and integrated into meaningful task design and adjusted to other tasks in the long-term process of developing EFL reading.

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Mental Model Theories in Reading Research and Instruction

Monika Kusiak-Pisowacka

Abstract This chapter looks at expository text models and the way they are applied in foreign language (FL) research and teaching. First, a short history of how mental model perspectives developed is presented. The characteristics of the Kintsch (1974) model, an example of an earlier model, are discussed. It is emphasized that unlike earlier models, which examine the connection of text structure with text memory but fail to account for how readers comprehend expository texts, the more recent approaches focus on the construction of comprehension, i.e., they account for mental representations of text and describe and explain the processes that are involved in this construction. As an example of a more recent mental model of reading, Britton's (1994) grammar of exposition is discussed. Its usefulness in reading comprehension studies is elucidated. As an example of such research, the study conducted by the author of the paper is presented. The paper ends with some suggestions concerning the use of the model in pedagogy, particularly in relation to developing FL learners' awareness of text structure and enhancing the understanding of the writer's strategies to express meaning.

1 A Short History of Mental Model Perspectives

Reading research is a little more than one hundred years old. Over that time it has shifted from studies of remembering lists of words to comprehension of sentences and finally to the mental processes of comprehending coherent texts. Studies investigating reading processes at the beginning of the 20th century focused on reading rates and the eye-voice span. Although most research of that time was

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concerned with motor processes, more and more attention was paid to mental processes of reading. In the early 1970s a number of studies concerning text analysis appeared. The studies of Kintsch (1974), and Meyer (1975), among others, provided evidence that the comprehension process is affected by text structure.

The Kintsch (1974) model focuses entirely on reading comprehension processes, excluding the word identification stage. The key notions of the model are propositions, which may be defined as "ideas that can be expressed in words, not the words themselves" (McNamara, Miller, & Bransford, 1991, p. 342). During their studies Kintsch and Keenan (1973) observed very high correlations between reading times and numbers of propositions, not numbers of words in sentences.

According to the Kintsch (1974) model, processing the text is done automatically in cycles due to limited memory capacity. Comprehension operates at two different semantic levels: the *micro level*, referring to the local discourse of the text, and the *macro level*, referring to the more global discourse of the text. An important role is assigned to the reader's schema knowledge, which represents his/her goals and expectations. The schema controls text comprehension and selects micropropositions relevant to the gist of the text, which at the highest level of comprehension are transformed into one macroproposition (which might be, for example, the title of the text). In fact, Kintsch and van Dijk (1978) demonstrated this effect in the study of recall after reading. They showed that what was recalled 30 days later was only the summary-type information represented as macroproposition(s) in the model.

The model also accounts for the situation when no connections can be found between text propositions, and new propositions are inferred to make the text coherent and facilitate its comprehension. In comparison with other models, the Kintsch model provides a much more complex account of text comprehension at high levels, those not requiring decoding.

In time the theory of reading based on propositions met with criticism. It was noticed that "a problem with propositional representations is that they are often more representative of the structure of the text than they are of the structure of memory for the text" (McNamara et al., 1991, p. 492). The importance of the reader's prior knowledge in reading comprehension came to light again (e.g., Minsky, 1977; Schank & Abelson, 1977). The activation of appropriate knowledge facilitating the organisation of new information in the process of text comprehension was enquired into again. The schema theory also began to be criticised. Certain limitations of the theory were noticed and the question of why and how readers understand texts about unfamiliar events was raised (e.g., by Johnson-Laird, 1983).

Thus, a need arose for a more general approach viewing reading as a process of building and maintaining comprehension of situations described in a text. Such an approach was suggested by mental model theories. According to McNamara et al. (1991), a mental model built by the reader in the process of reading consists of "mental tokens arranged in a structure that depicts the situations described by a text" (p. 494). Mental model theories are characterised in more detail in the next section.

2   Characteristics of Mental Model Theories

Mental model theories draw on the theoretical premises of propositional models and schema models. They view reading as a process of building and maintaining comprehension of the situations described in a text. They enrich the view of text representation suggested by the earlier models, such as the Kintsch (1974) model and Meyer's (1975) system. Text representation is not based entirely on the text. McNamara et al. (1991) say that "readers not only process a text at a propositional level, but also construct a mental model that is analogous in structure to the events, situations or layouts described by the text" (p. 493). Therefore, the reader's knowledge and the strategies he/she applies are also considered important in the process of comprehension. For example, in the van Dijk and Kintsch (1983) model text information is represented in memory at three levels: surface form, propositional textbase and situation model. The *surface form* refers to the representation of the exact wording and syntax; the *propositional textbase* corresponds to a multi-leveled, locally coherent propositional network of semantic text information; and the third level, the *situation model*, depicts real-life situations presented in the text, as perceived by the reader, i.e., the reader's interpretations of the text. Other examples of mental models are: the van Dijk and Kintsch (1983) model, the construction-integration model developed by Kintsch (1988, 1998), Britton's (1994) grammar of exposition and the Gernsbacher (1996) model.

3   Britton's Model—Inducing Understanding by Exposition

Britton's (1994) grammar of exposition will be discussed in more detail below. Its theoretical assumptions and the research evidence that supports these assumptions will be presented.

3.1   Description of the Model

Britton (1994) claims that "[e]xpository texts are intended to build a structure in the readers' mind" (p. 641). The writer guides the reader by providing instructions that will enable the reader to construct the correct structure of the text and concepts that the reader can use to develop the intended structure. The reader's role is to recognize and execute the text instructions, use the concepts provided by the text and add any building material not provided by the author. Britton (1994) suggests that "the mental structures that readers derive from a text often will be incomplete or incorrect, when compared to the structure intended by the author" (p. 644).

To signal a development of ideas in the text, the author of an expository text makes certain moves, or structure building signals. Britton (1994) claims that "[a] large part of the responsibility for making the author's moves evident is carried by a standard grammar of exposition" (p. 646). The role of the reader is to parse the text, i.e., to identify relations between units of exposition.

The most basic expository move is the *expand* move, which develops the topic of the discourse. It occurs at the topmost injunction of exposition, where the idea to be expanded on is the overall subject of the text, often expressed in the title. It also occurs at the middle levels, e.g., in a heading of the section, where the subject of comprehension is expressed as well. The most common and important, although the most complex move, is the *enlarge-on*. It occurs at the lower levels of exposition, where the information introduced in the previous sentences is developed. The enlarge-on is often followed by a *move-on* (which can take the form of a *move-down*, a *move-up*, a *move-across* or a *move-out*), encouraging the reader to develop his/her understanding of the text. In the text the move-on instruction is signalled by such phrases as: "moving on to", "our next topic is", "turning to"; it can also be indicated by the period at the end of the sentence or by a new heading of the section. Britton distinguishes two more signals—the *unitise* and the *stop*. The role of the unitise is to instruct the reader to work out the hierarchy of the structures of the representation of the text, to construct macropropositions (cf. Kintsch & van Dijk, 1978), or in other words to form a conclusion and to summarise a section of the text. This operation can be signalled by phrases such as "in summary" *and "*the point is". The last move, the *stop*, brings the discourse to an end and instructs the reader to stop reading and constructing his/her representation.

Britton compares the nature of the signals left by the writer in expository texts to the linguistic notions of speech acts. All of them include both information concerning the subject developed by the text and instructions about actions that the reader should perform to insert this information properly into his/her mental representation. However, the structure-building injunctions are very rarely expressed directly; most often they are indirect or absent. The most direct instructions are phrases that do not contain information about the topic of the text, but information that instructs the reader about what he/she should do with the information about the text. Examples of such phrases are "for example", "in summary" and "the second point is". Another way to help the reader to construct the structures intended by the writer is to use various paralinguistic devices, such as text layout, and mixed linguistic physical signals such as punctuation, paragraph indentation, headings and their position, size of font, colour, and so on.

3.2   Accounting for Pathologies of Expository Text

An unquestionable advantage of Britton's model is his attempt to account for difficulties the reader may encounter when reading expository texts, in other words to explain why the writer can produce a text that fails to guide the reader. Britton

(1994) claims that "one underlying explanation for these widespread failures of expository text is certain illusions which are characteristic of the subject matter experts who write expository text" (p. 661). Experts in the subject matter of their texts usually begin to produce texts with a mental structure for the subject matter area that tends to be highly structured and well-developed. Their expert knowledge is also highly proceduralised and automatic, and therefore opaque even to experts themselves. As a result the text the expert produces can be too dense for non-expert readers. The rate at which the expert-writer develops his/her exposition may be too fast for the novice to follow, which may result in a lack of propositions and links that the non-expert would need. In terms of a grammar of exposition, the expert-writer tends to move on too fast; he/she may introduce new information too quickly, without overlap clues and unitise instructions, which would make the text more understandable for the non-expert reader.

4   Mental Models in Research—an Overview of Studies

This section presents an overview of studies inspired by mental model theories. Mental model theories seem to be supported by studies of the mental processes that occur during reading. For example, Garnham (1981) found that readers choose whether to focus on propositional or mental model processing. When the subjects were not warned about a memory test following the reading, they seemed to process the texts as mental models. They had difficulty recalling exact sentences and distinguishing between sentences present in the text and those that had not appeared there. Their recall seemed to reflect a mental representation of the text, rather than the propositional one.

A number of psycholinguists have tried to develop a mental model for narrative texts. Morrow (1985) observed how kindergarten children read narrative texts. The researcher noticed that when readers are actively engaged in reading, they maintain a mental model of the text during reading, e.g., by focusing on relevant characters in a narrative. Another conclusion drawn from the study was that mental model processing seems most predominant in certain types of texts, e.g., narrative texts and spatial descriptions.

Barnes, Raghubar, Faulkner and Denton (2014) looked at how adults and children updated their spatial situation models when reading a narrative text. The results underlined the importance of both explicit text-based information and a mental model of the real-world situation described in the text. However, it was the ability to develop the situation model that was found to be predictive of reading comprehension.

Mental model theories also attempt to account for individual differences in reading comprehension, particularly differences between good and poor readers. For example, Merrill, Sperber, and McCanley (1981) found that good readers differ from poor ones in that they seem to prioritise different text properties. Good readers appear to be more sensitive to contextually relevant text properties, while poor

readers do not distinguish relevant from irrelevant text properties. This over-reliance on irrelevant text properties can hinder understanding of important relationships between ideas in the text. Since a large part of reading comprehension seems to depend on the construction of appropriate mental models, mental model researchers claim it is vital to find ways of instruction that will focus on the construction of meaning of the text. Context seems to be an essential factor in developing efficient, skilled reading.

Another issue investigated concerned reading comprehension difficulties. Woolley (2011) in his extensive discussion of problems that children can encounter in reading comprehension views the construction of a text-based model and a situation-model as fundamental cognitive processes in the reading process. The researcher draws on Kintsch's (1988) theory and Meyer's (1975) research and stresses the impact of text variables in comprehension difficulties, concluding that "coherence within the text and the theme of the story are critical in the readability of text" (Woolley, 2011, p. 25).

Mental model theories have also contributed to contrastive studies, i.e., those that explore differences between the first language (L1) and foreign language (FL) reading. Jenkin, Prior, Richard, Wainwright-Sharp, and Bialystok (1993) found that readers were able to form propositional relations and develop mental models in their L1. However, in their FL only propositional networks were developed. The researchers concluded that the content information is represented differently in text memory during L1 and FL processing.

Mental model perspectives allow researchers to examine the comprehensibility of expository texts, e.g., textbooks, and correlate it with students' reading comprehension. It is assumed that instructions provided by textbook writers may not be sufficient for students to build the intended mental structure concerning the subject discussed in the text. An example of this kind of research is a study conducted by Britton and Gülgöz (1991). Drawing on the Kintsch and van Dijk model (1978), the researchers modified the original text and prepared a version that apparently reflected the author's intentions better than the original text. Then they examined the reading comprehension of 170 undergraduate students and observed a significant increase in the students' free recall of the improved version when compared with that of the original text.

5 A Think-Aloud Study of Reading Expository Texts

Britton's model of exposition has also provided inspiration for the think-aloud study conducted by the present author (Kusiak, 2013). In this study Britton's model was used for the following purposes: (1) to analyse the texts read by the subjects, and (2) to analyse how the students constructed their representations of the texts. Below only the stages of the study in which Britton's model was applied are discussed. The results of the study are not presented; they can be found in Kusiak (2013).

5.1 The Goal of the Study

The main aim of the study was to compare the reading comprehension of proficient readers of Polish (L1) and advanced readers of English (FL), when reading expository texts in their native language (Polish) and in a foreign language (English). The following research questions were asked:

1. Do proficient readers of Polish (L1) and advanced readers of English (FL) read in the same manner in their L1 and FL? and
2. If they do not, what is the difference in the way they read in Polish and English?

5.2 The Subjects

The subjects were 10 undergraduate students in a foreign language teacher training college: 6 women and 4 men. Their language competence was assessed as advanced (i.e., C1 according to the *Common European Framework*). The author of the study was their teacher and it was assumed that the students would feel comfortable with the researcher during the think-aloud session.

5.3 The Materials

The texts were authentic news magazine articles: a Polish one taken from *Newsweek* (the Polish edition) and an English one from *Time*. The English text, entitled "*Is progress obsolete?*", addresses the issue of progress, its advantages and limits; whereas the Polish text "*Materia ducha*" asks philosophical questions concerning the dichotomy of brain and soul. It was assumed that the topics would encourage the students to read the texts. The Polish text consists of 9 paragraphs; whereas the English text has 10 paragraphs. Both were accompanied by photos. Since the pilot study had showed that the task of reading complete texts could be too tiring for the subjects, the students were asked to read the first 6 paragraphs in the Polish article and the first 7 paragraphs in the English article.

5.4 The Analysis of the Texts

In order to ensure the validity and reliability of the study, the two texts read by the subjects were analysed and compared. In each text clues left by the author of the text for the reader were analysed and types of moves identified. Below an extract taken from the Polish text (the title, subtitle and the first paragraph) is presented along with an exact translation of the text. Table 1 presents the analysis of this extract.

Table 1 Analysis of the beginning of the Polish text

Moves	Fragments of the text	Clues in the text for the reader
EXPAND	*Materia ducha* *The material of the spirit*	– Introducing the idea of the material of the spirit
ENLARGE ON Move down ("ducha"—"spirit")	*Neurobiologia nauczyła się badać to, co nazywamy duszą. Trzeba odrzucić dogmaty i skorzystać z tej szansy* *Neurobiology has learnt how to examine what we call the soul Dogmas need to be rejected and the opportunity taken*	– An idea overlap of the ideas expressed by "dusza" and "duch" ("soul" and "spirit") – Introducing the idea of neurobiology – Introducing the idea of dogmas – "tej szansy" ("the opportunity") refers the reader to the previous sentence
Move down ("duch"—"spirit") Move out (Descartes' theory about body/mind dualism)	*W sposób naturalny wierzymy w mit kartezjański, wedle którego naszym ciałem kieruje duch, dokonujący wyborów niezależnie od uwarunkowań biologicznych* *We believe in the Cartesian myth in a natural way, according to which our body is controlled by the spirit, undertaking choices independent of biological conditions*	– Indirect reference to "dogmaty" ("dogmas") – Introducing the idea of the common belief about dualism between the spirit and the body
Move down ("mit kartezjański"—"Cartesian myth") Move up ("dogmaty"—"dogmas")	*Przyjmujemy za pewnik: mózg jest z materii, a duch z pierwiastka niematerialnego* *We take it as certain that the brain is of matter while the spirit of a non-material element*	– Extending the idea of the Cartesian myth – The use of "przyjmujemy" ("we take") invites the reader to draw on his/her common knowledge and stresses the fact that this view is shared by other people
Move down ("przyjmujemy"—"we take as certain")	*Zgadzamy się oczywiście, że mózg bierze udział w życiu umysłowym, ale wciąż traktujemy go jak kieszonkowego peceta naszej duszy, który w imieniu "duchowego użytkownika" przetwarza i zarządza informacjami* *We agree of course that the brain takes part in mental life, yet we continually treat it as the pocket-size PC of our soul, which in the name of "the spiritual user" processes and manages information*	– Reference to "przyjmujemy" ("we take") – "ale" ("yet") presents a contradiction in our thinking, the idea that although we accept the principles of Descartes' dualism, we still treat the brain as part of the spirit

Table 2 Comparison of the two texts used in the study in terms of the number of moves identified

Type of move	Polish text	English text
Expand	13	7
Move down	12	17
Move up	12	22
Move out	1	1
Unitize	0	2

MATERIA DUCHA
NEUROBIOLOGIA NAUCZYŁA SIĘ BADAĆ TO, CO NAZYWAMY DUSZĄ.
TRZEBA ODRZUCIĆ DOGMATY I SKORZYSTAĆ Z TEJ SZANSY.
STEVEN PINKER
1/W sposób naturalny wierzymy w mit kartezjański, wedle którego naszym ciałem kieruje duch, dokonujący wyborów niezależnie od uwarunkowań biologicznych. Przyjmujemy za pewnik: mózg jest z materii, a duch z pierwiastka niematerialnego. Zgadzamy się oczywiście, że mózg bierze udział w życiu umysłowym, ale wciąż traktujemy go jak kieszonkowego peceta naszej duszy, który w imieniu "duchowego użytkownika" przetwarza i zarządza informacjami.
THE MATERIAL OF THE SPIRIT
NEUROBIOLOGY HAS LEARNT HOW TO EXAMINE WHAT WE CALL THE SOUL
DOGMAS NEED TO BE REJECTED AND THE OPPORTUNITY TAKEN
STEVEN PINKER
1/We believe in the Cartesian myth in a natural way, according to which our body is controlled by the spirit, undertaking choices independent of biological conditions. We take it as certain that the brain is of matter while the spirit of a non-material element. We agree of course that the brain takes part in mental life, yet we continually treat it as the pocket-size PC of our soul, which in the name of "the spiritual user" processes and manages information.

The analysis of each text, which involved identification of moves, was followed by a comparison of one with the other. The comparison of the moves identified in the two texts is presented in Table 2.

The results of the analysis show some differences between the texts. In the Polish text 13 new ideas were introduced throughout the article, whereas in the English text 7 new ideas were introduced (this is reflected in the number of "expand" instructions). The English text has more move-down and move-up instructions than the Polish text. Another difference lies in the number of unitize moves; there are two such moves in the English text and no moves of this kind in the Polish text. There is no difference in the number of move-out moves. The analysis shows that the Polish text has a more "dense" network of ideas, which can make it more difficult for the reader. The texts seem to reflect two different ways of developing exposition of ideas, a characteristic of argumentative written texts produced in Polish and English respectively, a feature which is accounted for by the principles of contrastive rhetoric and has been investigated, e.g., by Yakhontova (2002) and Salski (2012).

Table 3 Analysis of a think-aloud protocol of one of the subjects when reading the introductory part and the first paragraph of the Polish text. Taken from Kusiak (2013, pp. 157, 158)

Section in the text	Propositions formed during reading	Think-aloud reports
The introductory part	• A soulless egghead, he has the brain in his grasp and doesn't believe in the soul? Why is he holding the brain? • The material of the spirit • Neurobiology	*First I'm looking at the picture, I'm ignoring the text. I'm looking at the picture and reading (the caption below the picture) "A soulless egghead" uhm, it's intriguing, "he has the brain in his grasp and doesn't believe in the soul". Why? And why is he holding the brain in his hand?* *T: Is he?* *S: Yes, he is. And the brain in this... Oh, my God! This is so interesting for me! (laughter) "The material of the spirit", yes. Uhm, well and right away I associate it with (..), when I looked at this text, I looked, yes, at "The material of the spirit", at the picture, at the caption and at "neurobiology". (.) And that's all. And now I'm reading*
The 1st paragraph	• The material of the spirit? • Neurobiology? • We treat the brain as the pocket-size PC of our soul? • According to Descartes our body is controlled by the spirit • Brain is made of material substance and soul of non-material substance • The brain influences the soul? The soul guides the body? The brain is guided by the soul? • The brain is our PC? • The brain is a pocket computer? • Body and soul can cooperate? • How is the connection between body and soul investigated by neurobiology?	*T: What are you reading?* *S: well, so "The material of the spirit" and this subtitle "neurobiology". (..) Right, well (...) I found it very interesting xx this statement of this Steven uhm about the brain (.) But how can we treat the brain as a PC of our soul? I understand a PC is a computer, but (.) I don't know but I don't treat the brain as a PC of our soul. It's so strange for me, I can't agree with this. (.) And it's also interesting, yes, it's interesting, the beginning of the article is interesting. Now I continue reading* *T: What did you pay attention to when you were reading?* *S: Right, it caught my attention earlier, that the Cartesian myth, which means that we have separate, that is the body is directed by the spirit, which functions, yes I understand it OK, and this is so eh (.....) I think that the article is about, about the role of the soul and what is the soul and what, eh, how we define the brain. And here they say that the soul directs our body and the brain is made of substance, and the soul is immaterial, which means that a distinction between these two things which are different. (...) And now it seems to me that the next paragraph will be about, uhm e.g., how the brain influences the soul, if it's possible, and how the soul, yes how the soul directs our body so that the brain listens to it, obeys it. And I'm wondering why this brain is a PC of our soul, it's a computer – what does it mean? Xx a computer and now I'm thinking (.) Why here, why is there the word "a computer", I don't understand this phrase, how can it be the pocket computer of our soul? so what does it mean? Does it mean that in this computer we can find everything? and it is the question that I'm wondering about. (..) And what xx in our soul and now I have such strange thoughts, and then it goes: "which in the name of its 'spiritual user' processes and manages information." So does it mean that the brain and the soul sort of cooperate with each other. And I'm wondering how it will develop, what is the connection between the brain and the soul from the point of view of neurobiology. I know from the subtitle that "Neurobiology has learnt how to examine what we call the soul" and this is interesting. And now I go on reading*

5.5 The Analysis of How the Students Constructed Their Representations of the Texts

In this analysis, propositions in the students' representations of the texts were identified. At this stage of the study, the term "proposition" was used both in the analysis of the text and the analysis of students' protocols. It was accepted that it refers to text units (in the text analysis) and the ideas the students constructed on the basis of the text (in the analysis of think-aloud protocols). Table 3 presents the analysis of a think-aloud protocol of one of the subjects, in which the reader read the introductory part and the first paragraph of the Polish text. The table shows a transcription of a think-aloud report and the corresponding propositions which were identified in the think-aloud reports.

Two types of propositions were identified in the think-aloud protocols and named partial and final. *Partial propositions* (marked as interrogative statements in think-aloud protocols) are those that the students formed very often at the beginning of the construction of their representations concerning the particular parts of text. They reflect the readers' tentativeness or uncertainty concerning their comprehension as well as strategies that helped the readers to modify their propositions before accepting them and incorporating them into the final version of their comprehension. *Final propositions* (marked as affirmative statements) were the propositions about which the subjects did not report doubts. It is worth emphasising that they also underwent changes; in many cases the readers elaborated on the propositions, e.g., by adding new propositions to them, thereby constructing more complex representations of the text. It is important to stress that the analysis of propositions constructed by the students provided the basis for the subsequent stages of the study.

To sum up, the aim of this section was to demonstrate the advantages of using mental model theories in reading studies. It seems that mental model perspectives can contribute to the conceptualization of reading and provide researchers with a useful tool to analyse texts used in studies as well as to investigate the text comprehension processes of the subjects under investigation.

6 Conclusion and Teaching Implications

Mental models have a number of advantages. In contrast to the earlier models, e.g., Meyer's (1975) system or the Kintsch (1974) model, they elucidate dynamic relationships between text structure properties and the reader's background knowledge. They focus on both the writer and the reader, describing the strategies that the writer applies to communicate his/her ideas as well as factors that influence the reader's construction of text representation.

As the earlier discussion demonstrates, mental model theories have been applied in numerous studies that aim to explain the communication between the reader and the writer. Additionally, they offer interesting implications for both L1 and FL/L2

reading instruction. Since they are useful in analysing texts, they contribute to discussions on the simplification/authenticity as well as comprehensibility of written texts, issues which are important for both researchers and teachers.

Mental model theories can also inspire teachers, particularly those of advanced foreign language learners, to design activities to sensitise students to text structure. As regards writing, such activities can show learners how to plan their texts and how to leave clues for the reader of their texts or in other words how to be a responsible writer. By analysing texts, e.g., by means of the Britton model, students can learn how to approach texts strategically and how to search for clues provided by the writer, which means learning how to be a "skilful" reader. Think-aloud techniques seem to be of help in facilitating development of learners' mental models, since as Sweet and Snow (2003) claim "understanding at the level of the mental model has particularly important implications for comprehension, because this is the level at which many readers struggle" (p. 90).

Undoubtedly, there is a need for more research into the usefulness of mental model theories in both reading studies and pedagogy.

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On Texts Interesting to Read in Foreign Language Teaching

Halina Chodkiewicz

Abstract This chapter sets out to argue for the significance of 'interest' as a critical factor in reading and learning in L2/FL contexts. It is claimed that despite the fact that EFL specialists so frequently articulate the need for providing 'interesting texts' to work on and recommend that learners' interests should be taken into consideration, too often is the concept of interest used indiscriminately with reference to texts or readers, and no adequate theoretical rationale for understanding its role in reading has been offered. Bernhardt's (2005, 2010) recent compensatory model of L2 reading posits that whereas 50 % variance in readers' performance is explained by L1 literacy and L2 language knowledge, the remaining, unexplained variance comprises other factors, including interest. Such factors as genre/text features, background/domain knowledge, strategies, engagement, motivation, etc., which are closely related to interest, need to be covered in a comprehensive interpretation of L2/FL text processing. This chapter will provide an overview of significant insights into the nature of interest as a factor in text-processing obtained in theory and research concerning different educational areas mainly in L1 contexts which seem to be relevant for exploring the complexity of the construct of interest and its impact on L2/FL reading comprehension and learning processes. Among others, the chapter will focus on the theoretical grounds for conceptualizing the contribution of situational interest in reading L2 texts developed by Brantmeier (2006). Finally, the major implications of the theoretical and empirical findings for a better handling of interest-related issues in EFL reading instruction will be discussed.

1 Introduction

Although the notion of interest is commonly referred to in mainstream EFL literature, it has neither been clearly defined nor used consistently. It seems to be predominantly associated with expressing an increasing demand for supplying

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interesting materials for use in the language classroom. Day (1994), for example, quotes Williams's (1983) categorical declaration that "in the absence of interesting texts, very little is possible". Nuttall (1982) states that "having texts that interest learners is more critical than either the linguistic level of the text or its exploitability" (p. 178). The recognized EFL reading expert then goes on to define interesting reading passages in a fairly commonsense way as those that help readers comprehend some new or relevant ideas, and involve them in independent reading. After conducting a project for a British publisher in 10 countries, Tomlinson (2005) comes up with an inevitable conclusion based on teachers' expectations: "what teachers (and learners) want most from coursebooks is interesting text" (p. 143).

Despite the compelling requirement that foreign language learning and teaching should be based on interesting texts, no unanimous conceptualization of such texts has been developed or adopted for the purpose of selecting or creating adequate materials for EFL classroom pedagogy. Some attempts to describe a set of text-related criteria that would cover the interest factor, however, have been made, which shows a growing awareness of the issue. Day (1994), for instance, puts interest on a long list of text characteristics to be considered in EFL settings. The list enumerates such text properties as exploitability, readability (lexical knowledge, background knowledge, syntactic appropriateness, organization, discourse phenomena and length), topic, cultural suitability, political appropriateness, and appearance (layout, type size and font), whose understanding has in many cases been reconsidered over the last two decades. Day emphasizes that it is not only the choice of topic to be used in the classroom which can be a source of interest and motivation in EFL instruction; covering selected topics or themes can be stimulating for the learner as this can result in the text being read in more depth, enhancing the process of language acquisition.

Apart from recognizing the importance of text interestingness, EFL specialists recommend that both practicing teachers and textbook writers give proper attention to learners' interests and preferences for the topics which are to be covered in the language course (e.g., Day, 1994; Harmer, 2012; Hedge, 2000; Ur, 1996). Administering reading interest questionnaires has proved to be a useful tool for determining learner interest in the topics targeted in particular reading materials (Day, 1994; Hedge, 2000). As Hedge (2000, p. 206) notes, not in all educational situations can learner interests be satisfied by providing a tailor-made selection of reading materials; texts studied in academic or professional areas may not correspond directly to students' interests or teachers may be obliged to follow strictly pre-determined coursebook material. In such cases, however, teachers can attempt to work with and around the texts so as to generate interest through task design and implementation. Along this line of argumentation, Ur (1996) states that it is the teacher's responsibility to add or create interest to make text-based activities and lessons interesting for a particular group of learners. She explains that the content of texts chosen for the EFL classroom 'hidden curriculum' should as a rule be suitable for the target learners and should aim to generate a positive attitude to the material presented. Learners' global intrinsic motivation and interest are to be stimulated by providing "interesting and attractive information about the language" (p. 280), as

well as by using innovative but, at the same time, tried and tested techniques and classroom procedures.

An overview of the issues of interest addressed in connection with the demand for working with 'interesting texts' in L2/FL reading instruction would not be complete without a brief consideration of the premises underlying the extensive reading approach that has enjoyed considerable recognition in different phases of the evolution of mainstream foreign language methodology since the 1930s. Its benefits are generous for readers, who not only select texts guided by their individual interest, but also undertake efficient reading practice working independently of the teacher. The learner's interest then determines the quantity of the text chosen to read, the level of involvement in the reading process, and the perception of reading as a pleasurable activity (Day & Bamford, 1998). Dakowska (2005) points out that "the interest factor performs an important motivational function while enhancing communicative autonomy" (p. 250). Nation's (2008) practical-sounding observation that "If an extensive reading programme is to be successful, it must provide books that learners are interested in reading or that will develop their interest in reading" (pp. 52–53) confirms the importance of the availability of proper reading materials, but also the need for generating interest in reading "done for its own sake" (Wallace, 1992, p. 7). As is generally known, such goals can be achieved by using graded readers and book series written in controlled language suitable for specific language proficiency levels and learner age groups. Graded readers can thus meet the criterion of providing both interesting and appropriate texts for different groups of learners, and what is more they give L2/FL learners ample opportunity of reading longer, engaging pieces of their own choice for the pleasure of reading, which simultaneously ensures incidental language acquisition.

Whereas frequent considerations of the pivotal role of 'interest' in reading are evidence of a greater will to incorporate it into L2/FL reading practice framework, it is generally approached intuitively, and its precise conceptualization is missing. In contrast to the scarcity of research-based approaches to the interest factor in L2/FL contexts, educational psychologists and L1 reading experts have put considerable effort into defining the concept of interest, particularly with a view to its facilitative effect on academic reading performance. Generally, interest is treated as a determinant factor in comprehending texts, learning from them, and motivating students. In exploring knowledge acquisition processes and learning outcomes, interest has basically been investigated as an independent variable and learning as a dependent one (e.g., Alexander & Jetton, 1996; Krapp, Hidi, & Renninger, 1992; Renninger & Hidi, 2011). Scholars involved in interest-related studies have tackled such issues as assessing the level of readers' interest, identifying the sources of interest and their interrelationships with diverse mediating variables in the learning process, and defining different forms of interest and phases in its development. Despite this, it is obvious that EFL specialists are aware of the importance of appealing to learners via their existing interests; learners' interests support their further intellectual development and generate new interests in classroom conditions created for task performance. The goal of the present chapter is to address those facets of the concept of interest that in our opinion are most relevant for EFL theoreticians and

practitioners in interpreting the role of the interest factor in text-based practice with a view to enhancing reading comprehension and content learning, as well as improving reading ability and general language competence.

2 Defining Interest: Individual and Situational Interest

Defining interest is hard because it is a multidimensional construct and it is also closely related to an array of cognitive and affective variables involved in the reading process, whose influences are difficult to delineate and measure. As many as 12 motivation-related concepts referring to reading, including interest, have been identified in a research literature review by Conradi, Jang, and McKenna (2014). Discussing the issue of interest, Renninger and Hidi (2011) note that since 1946, when Allport complained about the lack of an adequate definition of interest, no unified view of interest has emerged and its numerous conceptualizations have led to the development of varying research perspectives. With no explicit definition of interest, researchers conducting studies concerning a variety of subject areas, educational situations and groups of learners have reported findings of limited generalizability. Despite this, some interdisciplinary studies have yielded insights into the functioning of interest in reading and learning which are enlightening to theoretical and practical EFL considerations.

One of the fundamental assumptions has been that there is a difference between individual and situational interest. Whereas the former pertains to the characteristics of an individual understood as the disposition of a person—hence the label—the latter denotes *situational interest*, that is interestingness, primarily associated with the learning environment and the reading material/texts used in particular subject-area activities (e.g., Anderman & Wolters, 2006; Carr, Mizelle, & Charak, 1998; Hidi & Baird, 1986; Krapp et al., 1992; Krapp & Prenzel, 2011). Separated for the purpose of analysis and measurement, individual and situational interest meet when actualized through one's psychological state in performing text-based tasks in teaching, learning or work situations—the state of being interested (Anderman & Wolters, 2006; Krapp et al., 1992; Krapp & Prenzel, 2011). In empirical studies into the effect of interest on learning, researchers investigate learning outcomes expressed as test scores or grades, their cognitive structure, that is knowledge representation, as well as exploring the interest-oriented learning process as reflected through the mediating variables such as learning strategies, prior knowledge, attention, affect, persistence, text characteristics, etc. Research findings have revealed that individual interest is a significant factor affecting reading comprehension scores even after controlling for readers' prior knowledge, intelligence and text features (Krapp et al., 1992). Interest has also been empirically proved to be a powerful determinant of attention, recognition, and memory (Ainley, Hidi, & Berndorff, 2002; Hidi & Anderson, 1992; Krapp et al., 1992; Schraw, Bruning, & Svoboda, 1995).

In providing the aforementioned consensus definitions of the basic motivation-related factors Conradi et al. (2014) suggested a general definition of

interest as "a positive orientation toward reading about a particular topic", then a differentiation between individual and situational interest described as "a relatively stable and enduring positive orientation toward reading about a particular topic" versus "a context-specific, often momentary, positive orientation toward reading about a particular topic" (p. 154). What these definitions clearly indicate is that the development of interest takes time, is determined by one's experience, and is characterized by its uniqueness and topic specificity. Undeniably, in order to better understand the role of individual interest in the reading process a fine-grained analysis is necessary, so that the extent of its temporary and long-term impact on reading and learning processes can be explained. Readers work on a text with a relatively stable orientation toward a topic—that is, interest that exists prior to the task and influences text processing—or they generate interest while reading, and if they find the topic appealing, they may decide to look for further information on it. Learners' interest can be stimulated in different situations and being exposed to diverse reading materials in educational and out-of-school contexts helps them develop their world and domain-specific knowledge, which is a life-long learning process directed primarily by their own choices and preferences. As a result, it is an individual's interest that determines the structure of the knowledge they acquire (Boscolo & Mason, 2003; Renninger & Hidi, 2011; Schraw & Lehman, 2001). Likewise, Carr et al. (1998) opt for distinguishing between students being topically interested in an object/task/text over a period of time, independently of context, and being "situationally interested in a topic or task" (p. 47), which can be restricted to a particular classroom situation.

When selecting texts for reading-oriented tasks both coursebook writers and classroom teachers should take a principled approach so as to get proper guidance in generating or sustaining the interest factor in activities implemented in the classroom. As already mentioned, EFL teachers should be encouraged to try and find out what topics are of interest to their learners. Freedom in choosing the content to be dealt with in reading tasks in foreign language classes is, in any case, higher than in other school or academic subjects. Context-dependent situational interest, in particular, is directly related to the way of structuring and implementing reading tasks for classroom use and it should be generated in a group of readers performing the same task. As the aims of instruction concern not only the content of a text but also its language features, situational interest is inherently related to the type of discourse texts represent. That is the major reason why different sources of interest in text processing have been sought in the text itself (Hidi, 1990; Hidi & Anderson, 1992). Research into situational interest has revealed such factors stimulating reader interest as character identification, novelty, life themes, imagery value, intensity of action in reading narratives, and relevance of information to the reader's goals in reading expository texts. The quality of 'interesting texts', if such a term is used, has been traced in texts that are emotionally charged, thus motivating people to read (Krapp et al., 1992; Schraw et al., 1995; Wade, 1992).

Pointing out the differences between individual and situational interest does not mean that they are to be treated as dichotomous phenomena. Situational and individual interest are generally assumed to interrelate, as they emerge from the

interaction between the person and the environment which contains the affective factor. However, contrary to the consensus definitions by Conradi et al. (2014) that describe interest as a positive phenomenon, Hidi and Anderson (1992) draw attention to the fact that while individual interest is based on a consistent association between interest and affect manifested by positive feelings of enjoyment or excitement, situational interest does not have to be represented by solely positive emotions or those associated with long-lasting interest (p. 221). What requires comment is also the affinity of interest to motivation: they share such features as content/object specificity, interaction between a person and environment, and the involvement of both cognitive and affective factors. Reciprocal relations have been found to exist between interest and such motivational variables as goals, self-efficacy, self-regulation, and achievement value (Renninger & Hidi, 2011). At the same time, one has to bear in mind that motivation, interest, and attitudes are concepts that too often may lack clear definitions or proper operationalizations (Conradi et al., 2014).

3   Cognitive and Emotional Dimensions of Interest in Text-Processing

Although the assumption that interest is a complex construct consisting of both cognitive and affective components has been widely supported, attempts at explaining the psychological mechanisms that underpin them have led to a diversity of views being expressed by both theoretical and empirical researchers (Ainley et al., 2002; Hidi, 2001). In his seminal publication, Kintsch (1980) relates cognitive interest to such factors in reading and learning as unexpectedness, prior knowledge, comprehension, and writing style. What he associates with an emotional component of interest is an impact of a topic on the reader, which he/she receives as personally involving and interesting. In Krapp & Prenzel's (2011) view, the cognitive-epistemic component of interest plays a key role in one's readiness to acquire new domain knowledge; high interest increases one's awareness of what to explore in the future. As for the relationship between affect and knowledge in the reading and learning process, the two factors are treated as representing two distinctive systems (Krapp et al., 1992) or found as difficult to separate (Lee, 2009). It has also been observed that the relationship between cognition and affect tends to change throughout time; interest may start with the domination of the emotional factor, which subsequently develops into the phase when the learner chooses to expand his/her knowledge of a particular topic or domain (Renninger & Hidi, 2011). What is more, learners' feelings are sometimes negative, for instance when they are unable to retrieve information from long-term memory and find themselves in a state of knowledge deprivation (Rotgans & Schmidt, 2014).

With the affective component found to play an essential role in evoking the reader's interest, the idea of enhancing a text's emotional potential by simply

adding so-called 'seductive details' appeared. 'Seductive details' are information which is irrelevant but believed to be emotionally interesting. Considering the widespread interest in employing a variety of 'seductive details' in subject-matter textbooks, a body of research sought to examine their effects in both literary texts with added emotionally charged or provocative segments concerning general human interest topics, and in expository texts (e.g., Garner, Brown, Sanders, & Manke, 1992; Garner, Gillingham, & White, 1989; Krapp et al., 1992; Schraw et al., 1995; Wade, 1992), including science texts enriched with extra sentences or pictures with captions (e.g., Harp & Mayer, 1997, 1998). The results were particularly revealing, as they showed that the procedure of incorporating this kind of information, however attractive it seems to be, is neither important nor beneficial for particular reading events (Krapp et al., 1992; Schraw et al., 1995; Wade, 1992). Harp and Mayer (1997, 1998), who specifically dealt with the problem of seductive details in science textbooks, demonstrated that it is not an 'emotional interest adjunct' in the form of an entertaining text and illustrations, but information high in cognitive load, provided in the form of a summary text and illustrations, that is a 'cognitive interest adjunct', that promotes the learning process in science. In fact, the researchers made a categorical claim that "adding emotionally interesting adjuncts can hurt student learning of an explanative science lesson" (p. 430). They further expounded that "seductive details do their damage by priming inappropriate knowledge as the students' organizing schema" (p. 430). In fact, Kintsch (1980) raised a fundamental question of the suitability of the unexpected emotionally loaded elements inserted to the structure of texts used for pedagogical purposes. He wrote: "An unexpected event or statement may be interesting if, with hindsight, the reader is able to see how it fits into the text's overall structure" (p. 89), thus stressing the importance of text coherence for reading comprehension outcomes. To the knowledge of the present author, no EFL coursebook materials have been researched from the point of view of seductive details inserted into them, yet a compelling trend to be make current EFL materials look glossy and interesting might suggest that this is an issue that deserves to be studied empirically.

An interesting aspect of the interplay between cognitive and affective interest dimensions has been examined from the angle of L2 reading instruction by Lee (2009). The researcher subsumes topic congruence and topic knowledge under the category of cognitive factors, and treats topic interest and reader motivation as affective factors. The role of topic interest is generally treated as paramount in the learner's decision to make the effort to read the material (cf. Renninger & Hidi, 2011). In the case of L2 learners, topic congruence with the readers' prior beliefs is of special intercultural significance; it can stimulate the learners' positive emotions or—if absent—result in a cultural clash. The findings of Lee's (2009) study demonstrated that both interest in the topic and incongruence between the topic and the reader's pre-existing beliefs contributed to a better retention of lower-level information from the text.

A vital contribution to the increasing sophistication of our understanding of the emotional and cognitive dimensions of interest and a different general perspective in interpreting the phenomenon of interest comes from Silvia's (2006) theory.

Having considered the results of a large body of research into interest (e.g., Berlyne, 1960; Lazarus, 2001; Scherer, 2001), Silvia summarizes his theoretical standpoint in the following way: "Explaining interest in terms of the 'interestingness' of events obscures the cognitive dynamics that generate the emotion of interest. Instead of attributing the cause of interest to inherently interesting features of events, the appraisal approach explains interest in terms of the person's cognitive processing of events" (pp. 63–64). Silvia maintains that interest is not cognitive processing of person-environment interactions but an emotion arising from two independent appraisal dimensions. Thus, regardless of the objective features of an object or an event, an observer develops his/her own perceptions of it. Whereas the first component of interest entails novelty-complexity appraisal (not previously encountered or previously encountered but presented in a new manner), the other stands for one's appraisal of one's coping potential for understanding; that is, a self-rating of one's ability to understand the object, text or event. Connelly (2011) claims that only theories which—like Silva's—acknowledge the subjectivity of the observer's appraisals can account for variability of interest as expressed by different observers and for changes in the level of interest of the same observer. It is worth mentioning that the researcher adopted Silvia's model in his experimental study that aimed to explain the predictive power of selected text attributes for text-based interest in reading expository academic texts.

4 Reader-Text Interest—Sources of Interest and Their Relationships

As already suggested, the term 'interesting text/s' implies that texts can be treated as objects with the attribute of potential interestingness attached to them. Undeniably, such an approach is faulty as it restricts discussions of texts to their static properties (e.g., structure) while ignoring the fundamental processes of meaning construction operating when the text is received by individual readers (Sanchez & Wiley, 2006). In a similar vein, as remarked above, Silva's (2006) theory maintains that it is the individual's subjective perception of a text that determines whether it is found interesting. Hence it seems appropriate to refer to *texts as being interesting to read* for particular addressees. Other useful terms implying the agency of the reader processing the features of discourse are: *text-based interest* (Hidi, 1990; Hidi & Anderson, 1992; Renninger & Hidi, 2011), and *reader-text interest* (Schraw et al., 1995; Wade, Buxton, & Kelly, 1999). Understanding the intricate bond forged between the reader and text characteristics is important for classroom instruction in all the areas of study including foreign language learning and teaching.

A growing awareness of how crucial the function of reader-text interest is in promoting reading and learning processes has led to the acceptance of text characteristics as a factor contributing to the reader's interest in reading activity. In search of an answer to the question 'What makes a text interesting to read?' Schraw

et al. (1995) set out to identify the potential sources of readers' situational interest and to measure the amount of interest arising from them. The model of sources of reader-text interest they designed was comprised of: (1) *ease of comprehension* (whether the text is easy to remember and concentrate on), (2) *text cohesion* (text organization and clarity), (3) *vividness* (presence of exciting and vivid details), (4) *engagement* (whether the text is stimulating), (5) *emotiveness* (whether the text evokes strong emotional responses), and (6) *prior knowledge* (degree of the reader's familiarity with the content). The research tools used to examine the relationships between the six sources of interest perceived by the subjects while reading a text were a questionnaire and text recall. All sources of interest were revealed to relate significantly to perceived situational interest. Ease of comprehension, vividness, and engagement explained half the variation in perceived interest, and the results of the perceived interest questionnaire explained 12 % of the variance in text recall. In practical terms, their findings implied that writing a text that is cohesive, easy to understand, vivid, with concrete examples, but not sensational, can be conducive to a substantial increase of interest and text learning. Only prior knowledge was demonstrated to be marginally related to perceived interest and was unrelated to recall.

A further explanation of the relationship between interest and comprehension and learning was advanced by Wade et al. (1999), who, like Schraw et al. (1995), investigated the impact of *prior knowledge*, *ease of comprehension*, and *writing style* (a broader category including cohesion) on text-based interest, adding the categories of *importance* and *unexpectedness.* Due to the scarcity of research into reader-interest and its sources in L2/FL reading, research-based information concerning a range of different educational contexts can be of great help in understanding the potentially similar linkages holding between a range of factors operating in L2 reading performance. Some of the issues are worth taking a closer look at.

While L2/FL reading specialists show a considerable awareness of the significance of text cohesion/coherence and learners' prior knowledge for text comprehensibility (cf. Grabe, 2009; Chodkiewicz, 2014), the importance of content as interrelated with an interest factor is not dealt with in any systematic way. Yet, *importance*, conceptualized as value, significance, salience and value of information has been found to be a key factor influencing reader interest and ultimately learning outcomes. Alexander and Jetton (1996, 2000) argue that the importance of content, which is related to interest in comprehension and learning from texts, takes three basic forms in the classroom. Thus it can be:

- author-determined or structural; that is, based on the inherent hierarchical structure of a text created by the author; learners are familiarized with it so as to enhance their text comprehension and information recall;
- reader-determined (or constructed); that is, closely related to interest, with the importance of particular text features assigned on the basis of the reader's personal judgments;

- teacher-determined or instructional; that is, based on students' perception of teacher values as important.

A simple way of assigning importance and interest to different segments of the text has been offered by Wade and Adams (1990) who distinguish between: (1) main ideas—highly interesting and important information, (2) factual details— highly important but not interesting information, (3) seductive details—highly interesting but unimportant information, and (4) boring trivia, that is neither interesting nor important information. An interesting finding associated with a variety of educational practices is that the relationship between interest and importance is to a large extent genre-dependent, and as a rule it converges in narrative texts and in biographical texts read for the main ideas, but diverges in expository texts containing facts, explanations and factual historical information. This is why in the latter case texts can be rated as important even if they are not interesting (Wade & Adams, 1990). With a text containing potentially uninteresting information, it is the way of designing and implementing a task based on it, as already mentioned, that can contribute to situational interest.

Clear links have also been identified between interest and *unexpectedness*. Novelty and surprise can stimulate interest, as unusual events can be exciting. However, as claimed by Kintsch (1980), the degree of novelty must be optimized since interest cannot be aroused by information that is entirely familiar and predictable or completely unfamiliar. To reach their judgment of interest readers draw on their experience (Wade et al., 1999).

Much research into the interrelationship between interest and *prior knowledge* has its roots in the assumption that people read and know more about topics they find interesting (Silvia, 2008), yet the results of empirical studies so far have not been conclusive. Kintsch (1980) states that readers' interest increases when they acquire new information from a text and diminishes when nothing new is learnt. A significant interaction between interest and prior knowledge has been shown by a number of scholars (e.g., Tobias, 1994; Wade et al., 1999): in particular, the relationship between the reader's personal interest, domain and topic knowledge and text comprehension. Boscolo and Mason (2003) revealed that topic interest can compensate for a low level of prior knowledge, and contribute to text comprehension when prior knowledge is high as measured at the text-base level. In addition to this, they observed that the students' topic interest increased the higher their topic knowledge was, and that thanks to a high level of topic interest readers could infer things and successfully create situation models of texts even if the texts lacked good coherence.

The link between topic interest and reading comprehension has also been explored by a few L2 experts. Carrell and Wise (1998), for instance, enquired how prior knowledge and topic interest affect L2 reading comprehension when treated as distinct factors. Their study was motivated by two opposite views claiming that (1) readers gain a better comprehension when reading high-interest material due to their more extensive knowledge of subject-matter they are interested in, and that (2) interest is independent of knowledge. In the study involving L2 adult readers in academic settings the researchers assessed the relationship between prior

knowledge and topic interest, and enquired how it is affected by gender and language proficiency. They found that the correlation between the students' prior knowledge of the topics (as measured by the prior-knowledge test) and topic interest (as measured by the interest inventory) was very low. They found that the students showed low interest in topics which they had a fair amount of knowledge of, whereas poor knowledge of the topic made them interested in learning more about it. They finally concluded that topic interest and prior knowledge will not be correlated for any group of readers, and prior knowledge and topic interest are neither highly significant nor additive factors in reading comprehension (as measured by multiple-choice questions). Carrell and Wise (1998) explain that prior knowledge, even though proved to enhance comprehension, is not always activated by L2 readers, which is in contrast to Leloup's (1993, quoted by Carrell & Wise, 1998) study that showed strong effects of topic interest on reading comprehension among high school Spanish students. Another significant factor from the point of view of L2 reading—that is, the level of language proficiency—was also found to be statistically significant for reading comprehension, as were prior knowledge, topic interest, and gender.

Ease of comprehension of the text read, which is typically acknowledged to ensure a high level of text comprehension, manifests a substantial relationship with interest. In empirical research studies it is operationalized as readers' subjective rating of the text found easy to concentrate on and remember, and is found to be strongly dependent on text coherence, which contributes to sustaining interest and ensures better text retention (Alexander & Jetton, 1996; Kintsch, 1980; Schraw et al., 1995). It needs to be emphasized that both text cohesion and text coherence have long been a topic of scholarly debate among reading experts, and the surface-level signals chosen by the writer are known to influence text organization which further determines how text meaning is constructed and retained by the reader. L2 experts have repeatedly emphasized that surface linguistic forms guide readers in building discourse representation and identifying the main ideas, as well as affecting the use of their background knowledge (Goldman & Rakestraw, 2000; Grabe, 2009; Graesser, Mills, & Zwaan, 1997; Kintsch, 1998, 2005; Linderholm, Virtue, Tzeng, & van den Broek, 2004), though without relating them to the factor of interest. This problem, however, did not pass unnoticed in Armbruster's and Anderson's (1985) article which underscored the value of a "considerate" text, i.e., a "text that facilitates understanding, learning and remembering" (p. 2), and is characterized by coherence, i.e., a smooth weaving of ideas as well as appropriate content characteristics of high interest-value to the readers. As pointed out above, numerous attempts at manipulating coherence in texts used for pedagogic purposes by incorporating seductive details into them may even have a negative influence on students' understanding of the text and learning from it (Harp & Mayer, 1997; Wade et al., 1999).

Interest is also found to interact with *writing style*, defined by Kintsch (1980) as a factor that determines how things are said by the author, which has a direct impact on the reader's cognitive interest. Beck, McKeown, and Worthy (1995) assign three components to it, namely activity, defined as making events more concrete by

means of dynamic wording; orality, that is, the use of the conversational tone of oral language; and connectivity, which means explicitly marking connections between reader and text. Research findings that concerned readers' imagery, vividness and emotional responses in reaction to the texts read showed that all those factors enhanced both text comprehensibility and the readers' text-based interest (Wade et al., 1999).

Lists of factors affecting the generation of situational interest are extensive and, apart from the key factors already discussed, they include topic shifts, the unexpectedness of main events or isolated segments, character identification, reader engagement, the relevance of the information for the reader's goals, and the concreteness vs. imageability of salient text segments, as well as motivational constraints such as internal locus of control and value-related feelings. It has also been clearly implied that interest is related to general motivation determining the learner's willingness to engage in the activity. How much importance can be ascribed to the role of interest is shown by Alexander and the Laboratory's (2012) general conceptualization of reading competence that entails three basic components: knowledge, strategies and personal interest, considered to be a motivational construct. Also, of significance for practicing teachers is the strong bond between interest and learning strategies that can activate deeper text-processing. Students reading high-interest texts were observed to produce more elaborations, more cross-references, and finally a better representation of the text and its recall (Krapp et al., 1992; Hidi & Anderson, 1992).

5   Modelling L2 Reading and the Concept of Interest

As recent scholarship in general educational studies has brought much explanatory power to the understanding of the multidimensional structure of the reading process, the inclusion of interest in the L2 reading model has been suggested. In her design of an L2 compensatory model, Bernhardt (2003, 2005), a renowned L2 reading specialist, assumes that the 50 % of variance in reading that can be empirically accounted for covers literacy (20 %) and L2 language knowledge (30 %). The other 50 % of the variance is down to comprehension strategies, engagement, content and domain knowledge, interest, motivation, etc. She comments: "[i]nvestigating the other 50 % will necessarily entail much more ephemeral dimensions of literacy, namely affective dimensions such as engagement, interest, and purpose" (Bernhardt, 2003, p. 116). In a later publication she notes that "[t]he role of affect and interest in second language text processing is yet to be understood" (Bernhardt, 2005, p. 137). As already suggested, the problem in handling the complex nature of the L2 reading process is not only the scarcity of research in the area, but also the lack of clearly delineated definitions of cognitive and affective factors and a description of interrelationships between them. Like other L2 reading specialists, Bernhardt (2005, 2010) continues to use the concept of interest in a general way with no reference to the distinction between individual interest and

situational interest. McNeil's (2012) extension of Bernhardt's ideas expands the amount of explained variance in the reading process by adding background knowledge and strategic knowledge but with no reference to their interrelationship with interest. Of value is, however, the introduction of the developmental aspect concerning the involvement of background and strategic knowledge in reading. Higher-proficiency L2 readers are assumed to use about three times more strategic knowledge, a reduced amount of L2 language knowledge and background knowledge, and the same amount of L1 reading ability as lower-proficiency readers, which would have to give way to interest stimulation if it were to be incorporated into the model.

The goal of Brantmeier's (2006) empirical study was to provide a conceptualization of interest as a variable in the L2 reading process, based on the relevant L1 research in cognitive and educational psychology. Her model of interest dimensions was to serve the study of the dynamic interplay between the variables of situational interest and reading comprehension. In order to determine factors that elicit situational interest in L2 reading the researcher used two instruments: the Sources of Interest and Perceived Interest Questionnaires. She found that 5 factors (represented by 17 indicators) in the Sources of Interest Questionnaire accounted for 71 % of the variation, i.e., cohesion—31 %, prior knowledge—13 %, engagement—12 %, ease of recollection—10 %, and emotiveness—6 %. The study also revealed significant correlations between those five factors and the scores gained in the situation interest questionnaire and the total recall score. Apart from this, strong intercorrelations was found between: (1) cohesion and engagement/ease of recollection, (2) prior knowledge and engagement/ease of recollection, (3) engagement and ease of recollection/emotiveness. The researcher concluded that text cohesiveness and the reader's prior knowledge have a significant impact on the reader's engagement while reading and on text recall. The results of her study were not like those obtained in L1 research. For example, the readers' perceived interest in the content of the text neither hindered nor facilitated the written recall of the reading material (it was found to enhance comprehension and recall in L1), which she explained by the use of different comprehension instruments. She also found that prior knowledge did not play a significant role in text comprehension, which she explained by the fact that the adult subjects, advanced L2 learners read a story whose details they were able to remember. This corroborates Bernhardt's (2005) and McNeil's (2012) views that prior knowledge does not play such a significant role in the case of higher proficiency L2 readers.

6 Conclusions

It is undeniable that theoretical advances made over the last 30 years as well as the findings of empirical studies into the attributes of the concept of interest are of great significance to teachers, researchers and course designers, who need to develop an adequate view of their applicability to EFL reading instruction. As argued in this

chapter, taking a static approach to assessing texts selected or designed for peda-gogic purposes in terms of their linguistic features so as to label them as interesting, less interesting or not interesting with no clear interpretation of the reader and task factor criteria leads to a reductionist treatment of the problem. Both in real life contexts as well as in foreign language classrooms, texts are processed by readers whose characteristics such as purposes, abilities, prior knowledge, individual and situational interest, gender, motivation, and strategies—to name just a few factors—influence the outcomes of reading and learning. EFL reading instruction goals such as enhancing text comprehension and content learning, improving literacy skills, acquiring language aspects (i.e., making up for the learners' language deficiencies), require that the impact of many individual difference (ID) factors in text processing be fully understood. Hence the need to address, among others, the issues of indi-vidual interest, including topic interest, and situational interest generated by learners while performing a range of classroom reading tasks.

As pointed out above, interest is extremely difficult to handle in practical terms in EFL settings as it is in constant interplay with many other factors, and neither coursebook writers nor classroom teachers seem to be sufficiently sensitive to the issue. The specialists do not clearly distinguish between the contribution of indi-vidual and situational reader interest and the potential ways of generating positive, but also negative learner emotions. It has to be acknowledged that interest may be affected by selecting texts with characteristics conducive to interest generation, but also by manipulating the structure of a text, as well as by offering diverse tasks based on them. In general, learners can efficiently process the text structure which is cohesive and coherent, even if their language deficiencies have to be overcome. In fact, interest can be enhanced by a range of different factors difficult to fully analyse and describe, many of them individual ones, while classroom teachers organize their work across a group of learners.

It is worth stressing that the studies investigating the interrelationship between topic, interest and prior knowledge, perceived as an important factor in compen-sating for low L2 proficiency levels in text comprehension have been inconclusive. This means that students may have a personal interest in a topic with low prior knowledge of it or have prior knowledge of the subject with no particular interest in it (Carrell & Wise, 1998). The role played by prior knowledge and topic interest may also vary according to the teaching or learning situation and the learner's goals. It is not to be forgotten that outside formal teaching conditions, independent and extensive forms of reading have an enormous value for generating and sus-taining different dimensions of interest in reading.

On balance, it can be concluded that aheated discussion of the complex issues of interest addressed in this chapter has paved the way to a better understanding of the many dimensions of interest that require that teachers take a well-informed approach in working with EFL texts, be they authentic or modified. L2/FL class-room instructors certainly need to become more aware of the reasons why some texts are found interesting to read by some learners but not by others.

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The Learning Potential of Study Questions in TEFL Textbooks

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Abstract There is no denying that the construction of discipline-specific knowledge in most academic fields is principally based on working with text. Thus, developing a better understanding of the process of academic reading demands an investigation of not only the characteristics of academic texts but also of tasks used to stimulate readers' comprehension and knowledge acquisition. Even though the general role of textbook questions as comprehension stimuli has been described and positively evaluated by researchers representing diverse disciplines (Davila & Talanquer, 2010; Jo & Bednarz, 2011; Pizzini, Shepardson, & Abell, 1992), the literature in the area does not provide adequate grounds for a comprehensive analysis of the quality of study questions incorporated into academic textbooks. This chapter deals with the problem of describing text-based study questions in terms of their cognitive depth since the use of such questions can contribute considerably to the development of inquiry skills and discipline-specific knowledge. The present chapter provides the results of an analysis of the end-of-chapter questions appearing in three textbooks used by English Philology students in Second Language Acquisition and English Language Didactics courses. The set of questions chosen for the study has been examined on the basis of the criteria concerning the role and cognitive depth of questions as established by Graesser and Person (1994). Some implications for academic reading instruction in L2/FL contexts have also been suggested.

1 Introduction

It goes without saying that textbooks play a significant role in academic instruction, whereas reading to learn is considered to be an essential skill for acquiring targeted content knowledge (Chodkiewicz, 2013). Studying expository discipline-specific texts is composed of complex cognitive operations taking place simultaneously in

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the course of text comprehension. Therefore, in order to understand a passage from an academic textbook, and finally, learn the conveyed information, readers must have at their disposal conceptual knowledge of the particular content area and the knowledge of the text genre, which help them notice the relationships between the described ideas, as well as strategies that stimulate the process of reading (Garner, Wagoner, & Smith, 1983). The benefits of using reading strategies accompanying the process of reading an expository text and learning have been thoroughly investigated by a number of researchers (e.g., Chamot, 2004; Grabe & Stoller, 2011; Koda, 2005) and, as Chodkiewicz (2014), states, "it is unquestionable that both purpose-oriented strategies and comprehension-monitoring ones play a fundamental part in reading to learn" (p. 250). Answering questions while or after reading a text, as noted by Grabe and Stoller (2011), is a popular strategy used in the context of reading to learn content-area knowledge.

2 Defining Questions and Their Role in Textbooks

In explaining the role of questions found in academic textbooks and the processes involved in answering them, it is vital to investigate various conceptions of questions which have been suggested by theoreticians over the recent decades. In the 1970s, when researchers started extensive studies on the effects of answering study questions on learning, a question was defined as "a direction to a learner to examine instructional material or his memory of it and to produce some response" (Andre, 1979, p. 281). Such a definition of a question can be also applied to the form of instructional imperatives and interrogatory sentences since they evoke corresponding cognitive and behavioral operations (Andre, 1979). The requirement that a student should provide an answer to a question indicates the importance of the reader's active role in reading, information processing and learning. Olson, Duffy, and Mack (1985) treat a question as "a device for seeking new information that is to be related to an existing knowledge structure" (p. 219). In other words, one of the functions of questions is stimulating students' knowledge construction by linking prior knowledge with information gained from the text read. According to a more up-to-date definition of questions, provided by Pizzini, Shepardson, and Abell (1992), a question is a study aid which supports the reader's comprehension of the processed data and ensures its integration with his/her background knowledge. On balance, all of the provided notions of what a question is refer to it as to a tool used for the purpose of stimulating students' text understanding and knowledge building.

Identifying the role of questions which accompany content-specific texts in academic textbooks is closely related with investigating the cognitive level of the questions. A number of researchers (Andre, 1979; Cerdan, Vidal-Abarca, Martinez, Gilabert, & Gil, 2009; Rouet, 2006) point out the distinction between two basic cognitive categories of questions: higher-level questions and lower-level questions. The former type, sometimes also referred to as "complex questions" (Graesser & Murachver, 1985, p. 15), are those which require an answer that is not directly and

explicitly stated in the text, but which force the learner to analyse, compare, contrast and combine information conveyed in various paragraphs. Many experimental studies (e.g., King, 1994; Miller et al., 2014) have demonstrated that such questions aid deep text comprehension, information recall and, consequently, knowledge construction. Answering such questions makes the process of studying more laborious but also more effective. In contrast, lower-level questions, the so-called "simple questions" (Cerdan et al., 2009, p. 25) or "specific questions" (Andre, 1979, p. 283), do not depend on complex inferring while reading since they address single, specific concepts which are clearly stated in the text. Nevertheless, not only do questions of this type assess students' knowledge of basic information, they also constitute a foundation and a starting point for deeper text analysis (Miller et al., 2014).

In their research on study questions, Pizzini et al. (1992) adapt the question level analysis scheme proposed by Costa (1985), which describes three types of questions answered at different cognitive levels involving input, processing, and output. Input questions activate students' background knowledge by asking about elementary information not mentioned in the text but critical for text comprehension. Processing questions foster readers' analytical skills indispensable for close reading and knowledge construction. Output questions stimulate students to go beyond textual information by means of hypothesizing, speculating and evaluating operations, and as a result, make the process of reading and learning more meaningful. Such a description of the roles of different types of questions corresponds to the taxonomy developed by Graesser and Person (1994) which defines question categories through the perspective of the content of good answers to questions, and consequently, by the mental processes activated in finding the appropriate answers. The researchers suggest distinguishing between three major groups: shallow questions, intermediate questions, and deep questions. Shallow questions cover fact verification, concept completion, and examples as well as disjunctive questions. The rationale behind answering intermediate questions is to provide feature specification, quantification, definition, and comparison. Deep questions, as proposed by Graesser and Person (1994), require higher-level thinking since they stimulate the reader to manipulate textual information by interpreting it, searching for cause and effect relationships, investigating goals and procedures of some described actions, predicting possible outcomes or problems, and finally, by activating critical thinking necessary for judging and evaluating the read material. Analysis of the selected classifications discussed above leads to the conclusion that the multiplicity of question types as distinguished by researchers points to the potential of study questions used to accompany the task of reading academic texts.

Jo and Bednarz (2009) note the connection between different purposes of questions accompanying studying materials and their location in textbooks. Questions placed at the beginning of a section or chapter—"preposed questions" to use Singer's (1978, p. 903) term—may serve readers as points of reference for noticing the most relevant pieces of information conveyed in a text, whereas end-of-chapter questions are assumed to help students assess their understanding of the text and recall the most important problems covered in the reading material.

Some textbook authors insert so called adjunct questions within the text to constantly draw readers' attention to the most important parts, help monitor the process of comprehension, and stimulate readers to reflect on and discuss the described content (Holliday & McGuire, 1992). Jo and Bednarz (2011, p. 71) point to questions located in the page margins which focus on skill building, and thus have been referred to as "skill builders". Worth mentioning is the fact that the organization of a textbook suggests the ways questions can be exploited, and consequently, underscores their role in the process of reading and learning.

The findings of research on study questions (Andre, 1979; Cerdan, Gil, & Vidal-Abarca, 2011; Miller et al., 2014) have been used to contend that the use of such educational aids has a positive influence of reading content-specific texts with a view to broadening disciplinary knowledge. First of all, answering questions demands increased mental effort, leading to deeper text analysis and comprehension, and as a result, better information integration and recall. Not only do questions guide readers through the process of reading by maintaining their text comprehension, but they also promote a reflective attitude to the procedures connected with the activity being performed. Relevant as these benefits are, it is noteworthy that not all study questions support reading and learning effectively (Graesser, Ozuru, & Sullins, 2010). Therefore, academic teachers should try to analyse not only the content of texts, but also the range of tasks accompanying them, such as study questions (Graesser et al., 2010).

3   Answering Questions and the Process of Reading for Information

Answering questions is undeniably an effortful task for students, and at the same time a complex phenomenon to explore for researchers. First of all, the process of reading and answering questions is highly interactive and goal-driven (Graesser & Lehman, 2011; Zwaan & Singer, 2003). It represents a task-oriented reading situation, in which students get involved in browsing, choosing, and processing information with a view to accomplishing the task (Snow & RAND Reading Study Group, 2002). As Cerdan et al. (2011) indicate, answering questions may be assumed to be "a form of specific relevance instructions that directs a learner to specific or broader segments of a text that are task-relevant" (p. 296). Therefore, diverse types of questions, their purposes, and their location in the text may not only address different pieces of information and stimulate varying comprehension depth, but also elicit the activation of different mental processes. To make the issue even more complicated, studies on question-driven text processing (Cerdan et al., 2011) reveal that various kinds of questions can draw students' attention to the same piece of information in a text, although they may evoke different cognitive processes in answering them while or after reading a given passage.

Graesser and Lehman (2011) point to the importance of the top-down effects of answering a given question on the processes of reading for specific information. They have proved that while reading a text for the purpose of answering a question, and consequently, learning the information addressed by the question, readers focus their attention mainly on this particular goal and pass over the facts that are outside "the question's receptive field" (Graesser & Lehman, 2011, p. 63). In other words, the information a question tries to elicit is more likely to be searched for and, therefore, noticed, processed and remembered by the reader. As Cerdan et al. (2011) note: "Questions can affect how information is searched and processed, which has implications on comprehension. Questions provide students with relevance cues as to which information needs to be selected" (p. 302). Accordingly, it can be assumed that questions as reading tasks direct the process of reading and learning. Such a view has been supported to by three researchers (McCrudden, Magliano, & Schraw, 2010, 2011; McCrudden & Schraw, 2007) who define the impact of this kind of task on information processing and learning as the "relevance effect". They assume that readers, when provided with study questions, perceive certain text segments as more relevant and worthy of deeper comprehension than others. This explains how questions assist students in text processing and knowledge building.

Analysis of the components and the place of answering questions in the process of reading has been the object of many experimental and quasi-experimental studies over the last few decades (e.g., Cerdan et al., 2011; Garner, Wagoner, & Smith, 1983; Graesser & Murachver, 1985; Reder, 1987; Rouet, 2006; Mosenthal, 1996; Zwaan & Singer, 2003; Singer, 1984). On the basis of the above mentioned studies it is possible to identify fundamental components of answering a text-based question. The first stage involves the reader encoding the propositional form of the question (Zwaan & Singer, 2003) which means "interpreting" the question, as defined by Graesser and Murachver (1985, p. 40), or "parsing the question" as described by Rouet (2006, p. 98). In other words, the reader analyses the lexico-grammatical structure of the question. The next step consists in classifying the question; that is, assigning it to a particular question category. As proposed by Graesser and Person (1994), there are 16 question subcategories, including verification, quantification, comparison, interpretation, enablement, and expectation.

The assumption that these two initial steps in analysing the question are of critical importance for arriving at a proper answer is supported by Galambos and Black (1985) who state that, "[t]he processes involved in comprehending a question fundamentally influence the generation of the answer by appropriately contextualizing the question in a knowledge representation (…) we maintain that question understanding is the key to question answering" (p. 158–159). However, even at these levels readers may face several potential problems hampering both text processing and consequently, question answering (Armbruster, 1992). Namely, two questions may be worded similarly but address different information or, conversely, two questions may follow differing lexico-grammatical patterns, but require the same response. Furthermore, questions may be ambiguous in terms of the content of the expected answer. For instance, a question might ask only for a short definition

or a detailed, complete description of the issue together with any relevant explanation (Armbruster, 1992). The problem is, as noted by Raphael and Gavelek (1984), that students are too often unaware of the possible question-answer relationships and question construction.

Having interpreted and classified the question, the reader establishes the answer's information source and decides whether the question is text-based or memory-based (Rouet, 2006). As Graesser and Murachver (1985) explain, the reader "applies the question/answer procedure to relevant knowledge structures and sources" (p. 22). Subsequently, the reader matches the question focus with the processed content by means of text evaluation, selection and deep analysis (Rouet, 2006). Content searching may be improved by considering explicit textual cues and signalling devices like, for instance, headings, graphs, and charts. As proved by a number of studies already mentioned, searching for information while reading to learn enhances the reader's text comprehension and consequently, knowledge building. While browsing the text, the learner actively integrates the information presented with textual cues and prior knowledge (Zwaan & Singer, 2003). The last step in providing the answer concerns its articulation. Rouet (2006) says that, "[a]n important condition for text search to be effective is that an explicit answer has to be constructed" (p. 113).

The presented description of the procedures involved in reading to learn and answering a question is rudimentary. There are numerous other aspects that should be taken into consideration in any analysis of the processes outlined. These include the complexity of the subject-specific text, the presence of distractions, the structuring of text representation, the role of spreading information, and strategies used for answering text-based questions (Rouet, 2006; Singer, 1985; Mosenthal, 1996; Zwaan & Singer, 2003). There is also no denying that there are substantial differences in the process of answering lower-level and higher-level questions.

4   Review of Selected Studies on the Quality of Textbook Questions

No matter how trite this claim might be, it has to be acknowledged that textbooks play an important role in content-area teaching and learning. Nevertheless, although analysing the role of subject-specific textbooks was of key importance to a number of researchers representing different disciplines (e.g., Guthrie & Klauda, 2012; Kinder, Bursuck, & Epstein, 1992; Weinberg, Wiesner, Benesh, & Boester, 2012; Wilson & Hammil, 1982), the investigation of the value of specific reading-based tasks accompanying texts in course books has received scant attention. What is more, even though study questions have been shown to affect reading to learn significantly (Graesser & Lehman, 2011), there is no ample research on the quality of study questions found in content textbooks.

The only available studies devoted specifically to the analysis of study questions designed for the purpose of enhancing the process of reading to learn were conducted mainly in the context of primary and middle school education in the United States of America (Jo & Bednarz, 2011; Lavere, 2008; Pizzini et al., 1992; Moore, 1926). The research study carried out by Jo and Bednarz (2011), which examined secondary school geography textbooks, confirmed the assumption that the location of questions is connected with their purposes. What is more, the study revealed that as many as half of the questions inserted in a text and posed at the end of a section or a chapter simply demanded input-level thinking—that is, gathering and recalling information—whereas questions located in the margins or in additional supplementary parts of chapters were mostly of a processing-level thinking type, which means that they required further work with the information extracted from the text at the input level. The results obtained by the researchers indicated that output questions—those dependent on critical and creative thinking—were the least frequent ones. These findings corroborate the results obtained by Lavere (2008). The data received from both of the studies suggest that study questions found in textbooks intended for high school students do not effectively stimulate higher-order cognitive skills. Rather, they assist readers in recalling key facts, figures, examples, and definitions as well as finding basic relationships between them.

Interestingly, similar findings were reported nearly two decades before the work of Jo and Bednarz (2011). Pizzini et al. (1992), who investigated the cognitive level of questions derived from eight science textbooks designed for secondary school students, found that they all contained mainly input level question items: 78.8 %. Processing level questions accounted for 14.5 %. The most striking result to emerge from the data is that the number of output level questions which should stimulate higher-level reasoning was critically low—questions of this type comprised merely 6.7 % of all the questions examined. It is worth noting the similarity of the results of these three research studies with those described in an almost century-old study of textbook questions by Moore (1926). The analysis of questions accompanying 18 texts falling into three categories (reading texts, history texts, and geography texts), revealed that the number of memory questions substantially exceeded other types of questions, for instance questions requiring interpretation, comparison, imagination, or interpretation. All the studies discussed provide valuable insights into the nature of questions found in textbooks for secondary students. It has been demonstrated that that textbooks rely heavily on simple recall questions which do not enhance higher-order thinking skills indispensable for effective knowledge formation. Even though the amount and the quality of theoretical knowledge about the effects of certain types of questions on the processes of reading and learning has expanded, the authors of high school textbooks seem not to take this into account in constructing comprehension and study tasks.

As far as academic textbooks are concerned, to our knowledge, there is only one detailed research study that investigates the value of study questions. Davila and Talanquer (2010) examined end-of-chapter study questions in three college general chemistry textbooks and classified them in accordance with a categorization scheme based on the original and revised Bloom taxonomies of educational objectives. The

findings obtained from the analysis revealed that in the case of academic textbooks, application and analysis question types—that is, processing-level kinds of questions—were the most numerous ones. Knowledge questions requiring information recall and comprehension questions involving, for instance, interpretation, classification, and explanation were reported to be of a relatively similar frequency. Thus, the questions found in the academic textbooks were not only of the same, simple, shallow type as those present in typical high school textbooks. It can be hypothesized, then, that there exists a correspondence between the level of institutional education and the level of study questions used in textbooks. The studies dealt with in this chapter show that the higher the grade is, the more advanced and deeper are the questions provided to accompany content-area texts.

5 The Study

5.1 Aim and Research Questions

A search of the relevant literature revealed a serious shortage of research evaluating questions accompanying academic texts. Furthermore, little is known about the cognitive level of study questions found in and around content-area texts in EFL settings. The aim of this small-scale research study has therefore been to provide more empirical knowledge in this area. More specifically, the main purpose of the study was to find out if the questions that are inserted into reading materials for English Philology students taking part in BA and MA programmes are deep, intermediate, or shallow, as Graesser and Person (1994) have labelled them, and consequently, to determine how substantial their learning potential is. The following research questions have been posed:

1. What is the proportion of questions used at the three main levels of cognitive depth in the selected academic EFL didactics and Second Language Acquisition textbooks?
2. What were the proportions of the particular subcategories of questions appearing in the textbooks analysed in the study?

5.2 Method

5.2.1 Sample

The three academic textbooks [Textbook A—*Principles of language learning and teaching* by Brown (1994), Textbook B—*Theories in second language acquisition* by VanPatten and Williams (2007), Textbook C—*Teaching second language*

reading by Hudson (2007)], chosen for the purpose of this research study were among those used as reference material by English Philology students in the English Department at Maria Curie-Sklodowska University in Lublin, Poland. The chapters of the three textbooks selected for the current study included study questions. All the compound questions were divided into separate questions so that the classification of each individual question item was possible. The structure of the textbooks was virtually the same and questions were always located at the end of chapters. The total number of questions examined was 457: Textbook A—251 questions, Textbook B—88 questions, Textbook C—118 questions.

5.2.2 Data Collection Instrument and Procedure

The cognitive level of the questions being investigated was determined by reference to the question taxonomy proposed by Graesser and Person (1994) which, as described above, provides a comprehensive classification of the cognitive depth of the questions taking into account the knowledge representations and mental processes necessary for answering each question (Graesser & Lehman, 2011). Furthermore, the scheme corresponds to Bloom's (1956) classification of cognitive objectives and Mosenthal's (1996) hierarchy of question depth (Graesser et al., 2010). The taxonomy is an extended and improved version of the scale worked out by Graesser, Person, and Huber (1992). The updated question categorization has been empirically tested by its authors and is commonly referred to by other researchers undertaking the issue of questions in their works (e.g., Cerdan et al., 2011; Foltz, 2003; Graesser et al., 2010; Rouet, 2006). All of these factors contributed to the choice of this question taxonomy for the purpose of the present study.

The questions used in the study were rated by two academic teachers who participated in one training session before the data coding. The session served two major functions. First, the judges were to verify the feasibility of using the Graesser–Person taxonomy of questions for analysing questions accompanying texts in the area of EFL didactics and Second Language Acquisition. Second, it was to confirm that the accepted procedure and the criteria for question analysis and data coding were adequate. In order to achieve these two objectives, a set of 48 questions from the textbook entitled *Introduction to second language acquisition* by Schmitt (2010) was analysed with respect to the questions contained at the end of the chapters. All of the study questions were coded and any case of a question whose categories were difficult to decide on were discussed by the two academic teachers together so that the final decision could be made.

The training session helped the judges to ensure that the categorization scheme adopted could be used reliably for the purpose of the current study. They found that all the question subcategories differentiated by Graesser and Person (1994) were present in the analysed material but some of them seemed to be more problematic due to the nature of the area of the studies investigated. It is worth stressing that the course book chosen for the training session as well as the ones selected for the main study did not contain complex empirical research reports but presented an overview

of theoretical issues providing readers with a general scope of knowledge in the discipline. Therefore, the judges could anticipate that such question subcategories as quantification questions would be less frequent in them. On the basis of Graesser and Person's (1994) question taxonomy demonstrating question subcategories and their examples, an equivalent version displaying question examples concerning the two areas of study discussed—that is, EFL didactics and Second Language Acquisition—was provided. The examples of particular question types, presented in Table 1, were to serve as the reference categorization for the analysis conducted during the main study.

All the questions from the three textbooks (A, B and C) used in the main study were collected in one Excel file for clarity. After an approximately two-week period, the two academic teachers who participated in the training session worked independently to assign the questions to particular subcategories. They were supposed to continually relate their decisions to the question taxonomy, to the

Table 1 Examples of question categories taken from Schmitt (2010) presented in accordance with the Graesser–Person taxonomy (Adapted from: Graesser & Lehman, 2011, p. 58)

Question category	Abstract specification	Example of the question type
Shallow questions		
Verification	Is X true or false?	Are genres and discourse communities real and not simply useful heuristics for description and instruction?
Disjunctive	Is X, Y, or Z the case?	Is it linguistic or behavioural evidence?
Concept completion	What? who? when? where?	Who is the author?
Example	What is an example or instance of a category?	What is a clear example of a human behaviour that is learned through a stimulus-response type of experience?
Intermediate questions		
Feature specification	What qualitative properties does entity X have?	What are some of the textual features that give a sense of the author's level of expertise?
Quantification	What is the value of a quantitative variable? How much? How many?	How much L2 lexis is needed?
Definition	What does X mean?	What is reading?
Comparison	How is X similar to Y?	What are the similarities and differences between the two texts below?
Deep questions		
Interpretation	What concept can be inferred from a static or active pattern of data?	How do we understand sentences and texts?
Causal antecedent	How did a state come to exist?	How are languages acquired?

(continued)

Table 1 (continued)

Question category	Abstract specification	Example of the question type
Causal consequence	What are the consequences of an event or state?	What are the implications of the observed form interference?
Goal orientation	Why did an agent do some action?	Why do people choose to say and/or interpret something in one way rather than another?
Instrumental/procedural	How did an agent do some action?	How do we gain insights into listening?
Enablement	What object allows an agent to accomplish a goal?	When do you think it is appropriate to simplify texts for these readers?
Expectation	Why did some expected event not occur?	What kind of relationship should be expected as the ideal outcome from such a study and why?
Judgmental	How would you rate X?	Which two forms should the test developers choose?

exemplary questions and to the content of the three textbooks so as to make sure the identified type of question truly matched the information conveyed in the texts. The overall level of agreement between the two judges was 88.3 %. The judges encountered no major problems while distinguishing between the three main levels of questions: shallow, intermediate, and deep. Some minor discrepancies appeared in differentiating questions aimed at finding causal antecedents and goal orientation. Subsequently, the judges participated in an additional conference to review the results of their question classification, resolve any disagreements that had appeared, and arrive at the final subcategory for each question.

The total number of questions in the three course books differed. Therefore, in order to provide an accurate account of the frequencies of the investigated types of questions in the selected textbooks, a process of data normalization was conducted. Counts were normed to a basis of 100 questions, which means that we made an assumption that each textbook contained 100 questions. This allowed us to perform a thorough analysis of the frequencies of the question categories and subcategories and to facilitate comparison of the results.

5.2.3 Results and Discussion

Even though the study was small in scale, it presented a number of interesting findings. Figure 1 shows the normed proportion of questions used at the three main levels of cognitive depth in the selected course books. A chi-square analysis revealed that the differences in the distribution of the three main categories of questions in the selected textbooks were not statistically significant, $X^2 = 6.96$, df = 4, $p = 0.138$. We found that complex deep questions, which require higher-order thinking skills

	Textbook A	Textbook B	Textbook C
■ Shallow questions	15.54	17.05	16.1
▨ Intermediate questions	19.52	26.14	12.71
■ Deep questions	64.94	56.82	71.19
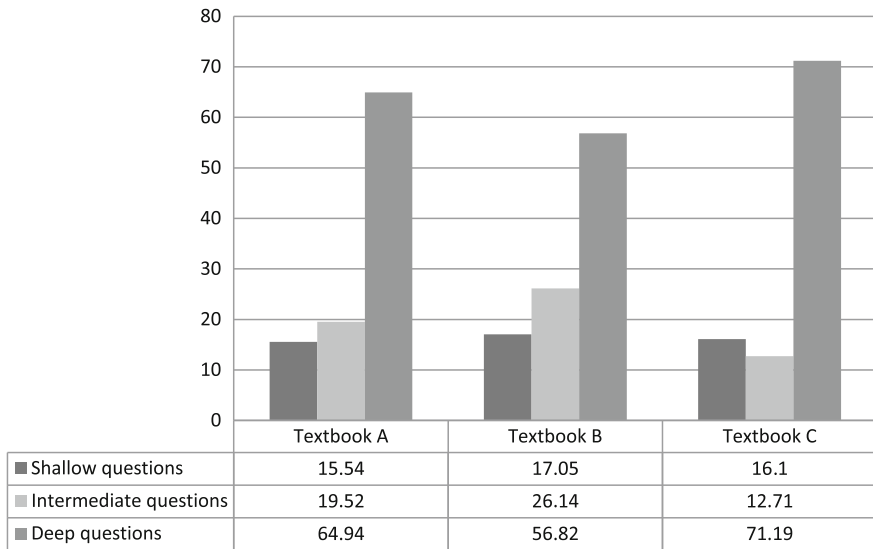
Fig. 1 Normed proportion of questions used at the three levels of cognitive depth in the three textbooks

and longer, more sophisticated answers going beyond information recall, were the most numerous question types in all three textbooks. The considerable number of this question type may be attributed to the fact that the discussed level involves twice as many subcategories as the other two levels. Questions classified as intermediate constituted approximately one fifth of all the question items investigated, whereas simple, shallow questions indicating the lowest learning potential were least frequent. Therefore, the conclusion might be drawn that authors of academic SLA and EFL didactics course books tend to design study questions so that they stimulate students' higher-order thinking skills.

As far as the second research question is concerned, the results reveal that the leading question subcategory in all three textbooks is judgmental questions. It may be assumed that as students are expected to show their critical and judgmental thinking in academic settings, study questions accompanying texts in order to guide the reading and learning process should be based on higher-order thinking. As can be seen from Table 2, in all the textbooks the same question types are the most common. Despite some minor differences of the frequencies of particular types of questions, it is apparent that among the five most frequent subcategories of questions are judgmental, instrumental/procedural questions, interpretation questions, comparison questions and example questions. In the case of the least frequent subcategories of study questions, the results also reveal similar proportions of questions between the three textbooks. It can be noticed that at the simple shallow level there are not many disjunctive and concept completion questions (beginning with what, where, and who), except for Textbook C, which contains a relatively

Table 2 Normed proportions of all question subcategories in the three textbooks

Question categories and subcategories	Textbook A	Textbook B	Textbook C
Shallow questions			
Verification	2.79	2.27	1.69
Disjunctive	1.20	1.14	0.00
Concept completion	1.99	1.14	7.63
Example	9.56	12.50	6.78
Intermediate questions			
Feature specification	4.38	2.27	1.69
Quantification	0.80	1.14	2.54
Definition	5.58	6.82	1.69
Comparison	8.76	15.91	6.78
Deep questions			
Interpretation	7.97	12.50	16.95
Causal antecedent	3.98	3.41	0.85
Causal consequence	3.59	1.14	4.24
Goal orientation	3.59	1.14	0.00
Instrumental/procedural	10.36	7.95	12.71
Enablement	4.38	5.08	5.08
Expectation	3.98	4.24	4.24
Judgmental	27.09	19.32	27.12

high number of this subcategory of question. At the intermediate level of questions, quantification items are rare, whereas deep level questions dealing with cause and effect relationships as well as goal orientation account for the lowest numbers.

In summary, the results obtained indicate that the textbooks chosen for the purpose of the present study contain mostly deep level questions, as defined by Graesser and Person (1994). It is noteworthy that in the light of the literature reviewed this category of questions is acknowledged to be beneficial for enhancing reading and learning as well as knowledge construction. It can be assumed, then, that the study questions found in these three sample textbooks reveal the potential of stimulating students' active comprehension and text processing at a deep level. It goes without saying that answering such questions may demand greater cognitive effort from students but this activity not only facilitates long-term recall of information and critical thinking skills, but it is also a foundation for readers' self-monitoring skills, which are indispensable in reading and learning.

The findings from the current study do not support previous research (Jo & Bednarz, 2011; Lavere, 2008; Pizzini et al., 1992; Moore, 1926) into the value of study questions found in textbooks. Indeed, in contrast to earlier studies described in the literature, the present work has demonstrated that cognitively challenging questions do appear in the selected up-to-date textbooks, and what is more, their adequate use seems to be promising for the efficiency of reading and learning processes. This discrepancy between the findings of the present study and the

previous ones might be explained by the nature of the subject matter. The majority of text-based questions investigated in the former studies came from such content areas as geography, history, and science, and were classified as simple, input questions. Therefore, it can be presumed that specialists designing course books representing the fields mentioned may tend to overuse questions that address mainly factual knowledge, whereas the authors of the textbooks that present the processes of teaching and learning, rather than suggesting question-related activities connected with facts and figures, more frequently formulate questions involving higher-order thinking skills such as interpreting, analysing, and evaluating. The divergence of the study results may also be connected with the kind of target readership of the school and academic textbooks. As already mentioned, the coursebook materials analysed were addressed to students well-equipped with knowledge of different philological subjects. It might be understandable that students at lower grades of education take advantage of lower levels of questions, whereas higher education students get involved in critical thinking by answering questions representing the deep level.

6   Conclusions

The present study of the cognitive depth of study questions used in the three academic discipline-specific textbooks raises several tentative implications for EFL academic reading instruction. First of all, as shown by the data gathered in the study, reading-based study questions have considerable learning potential and academic teachers should therefore appreciate their value and incorporate them into appropriately designed classroom tasks. However, this means that teachers should be able to analyse the quality of the questions themselves; that is, assign them to an adequate question category, connected with a particular level of cognitive depth. The taxonomy used for the purpose of this study provides a sound underpinning for teachers to evaluate the study questions they intend to work with. It goes without saying that answering deeper questions is reportedly more beneficial for text understanding and knowledge building than answering fundamental simple questions which, however, are not to be completely abandoned (Graesser & Lehman, 2011). Thus, teachers should select those study questions that have the potential to foster students' activation of higher as well as lower order thinking skills (Graesser et al., 2010). Instructing students how to read academic texts and answer questions accompanying them may be arduous for academic teachers but some basic instructions in this area are necessary to help students develop their reading and learning skills.

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Learner Perception of Academic Register at the Undergraduate Level

Ewa Guz

Abstract This article reports on a study conducted to gain insight into how Polish undergraduate students perceive and experience the academic variety of English. Using research data drawn from two distinct tertiary educational settings, we investigate the development of the students' notion of academic register over the course of a year of EAP instruction. Open-ended questionnaires were administered to 90 undergraduate students enrolled in academic reading courses at two different Polish universities at three points during the instructional period (at the onset, in the middle and at the end of the course). Areas investigated included the participants' overall understanding of the idiosyncratic nature of EAP as well as the aspects of academic register which caused the most difficulty. The goal of the study was to identify the inventory of features most frequently associated with academic register by the participants and to determine the most challenging aspects of academic texts.

1 Introduction

The academic variety of English, broadly referred to as English for Academic Purposes (EAP) has recently gained in importance as the language of the globalised academic community (Björkman, 2013; Cenoz, 2006; Smit, 2010). As early as nearly two decades ago, Graddol (1997, p. 8) listed tertiary education as one of the twelve major international domains which use English as their working language. English has become the natural choice of academia as the medium for producing and disseminating academic knowledge via scientific publication and activity (Björkman, 2013, p. 14; Hamp-Lyons, 2011, p. 92). In university education, the origins of the trend to widely adopt English as the dominant or at least additional language of instruction can be traced back to The Bologna Declaration (1999), which laid out the principles of constructing a common European space for higher education intended to encourage standardisation of educational practices and promote student mobility

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across European nations. As pointed out by Smit (2010, p. 3), in the new circumstances English has become the "presupposed additional language", which now serves as the main medium of communication for multilingual lecturers and students. To meet the demands of the growing number of national and international students, universities (also in Poland) have started to incorporate EAP/ESP instruction as an integral part of their curriculum for undergraduate and graduate students.[1]

The significance of English as a major academic language and the need to develop academic literacy skills in English has been stressed by many researchers. Biber, Conrad, Reppen, Byrd, and Helt (2002) and Biber (2006) emphasise that nowadays the majority of academic tasks are accomplished through language and that mastery of academic literacy in English is the determinant of students' academic attainment and a tool for successful academic performance. In fact, it has been argued that developing advanced-level literacy skills and register awareness in English has become a pre-requisite for full social integration, academic success and future professional prosperity in the globalised world (Chapman, 1982). This dimension of EAP is well expressed by Kroll (2003), who asserts that:

> Full participation in the world community, particularly within interconnected economic, technological, and geopolitical realities can require a fluency in English that goes beyond the spoken language and embraces a variety of uses of the written language as well. Because the English-language cultures are increasingly literacy-driven cultures (…) the pursuit of English entails a pursuit of written English, offering those who acquire skill in this code the possibility for improved life chances (p. 1).

It can be concluded that competence in EAP and university-level academic literacy skills in English have become essential skills which improve students' prospects for academic and professional development.

2 Academic Literacy and Second/Foreign Language Learners

Academic literacy is a complex, multilayered construct which subsumes a range of diverse skills and competencies that go beyond the mere ability to produce and interpret texts in a given language. Hyland and Hamp-Lyons (2002) aptly capture the comprehensive nature of the concept and define academic literacy as:

> (…) the complex set of skills (not necessarily only those relating to the mastery of reading and writing) which are increasingly argued to be vital underpinnings of cultural knowledge required for success in academic communities, from elementary school onward. (pp. 4–5)

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[1]One good example of the implementation of this policy is the EAP programme for doctorate students (Guz, 2014b) created at the University College of English Language Teacher Education/ University of Warsaw to be launched in 2015 as part of the general post-graduate programme available for all Ph.D. students.

It is worth noting that this definition sees academic literacy as a skill which is developed gradually throughout the educational cycle; that is, at primary, secondary and tertiary level. However, for the purposes of this paper, the term "academic literacy" is used in its narrow sense as referring to the tertiary level of education. It is assumed that the academic setting constitutes a particularly challenging research context in which the mastery of academic literacy necessitates both linguistic and intellectual capacities, which poses a number of difficulties for students. We will now consider academic literacy from the perspective of academic-level language learners.

Academic literacy has traditionally been understood as a range of intellectual competencies of 'the academy'. A number of such competencies have been identified across research studies. For example, Flower (1990) sees academic language as a higher order of discourse which is used as a tool for analysing, constructing, communicating and challenging knowledge in a given subject area. Therefore, 'practising' academic literacy requires a range of intellectual/conceptual skills which include analysis and synthesis of information, coherent argumentation, critical/analytical thinking and transformation of knowledge in response to a problem, issue, or purpose (Flower, 1990). Clearly, the application of these competencies to specific academic tasks requires extensive linguistic resources and sufficient competence in the target language. As regards the linguistic dimension of L2 academic literacy, Carkin (2005) lists a set of skills which underlie successful mastery of academic language by second language learners. First of all, she claims that EAP learners should possess sufficient lexico-grammatical knowledge of the target language along with proficiency in the traditional four language skills (p. 89). This should be supported by "discourse competence", which is described as "fluent control of academic discourse and register awareness" (ibid.) and a range of strategies aimed at producing and comprehending authentic academic language (see Guz, 2014a for a discussion of register awareness in novice EAP writers). In other words, non-native academic literacy requires both declarative and procedural knowledge of the target language as well as some degree of strategic competence. In a similar vein, Johns (1997, p. 2) emphasises that becoming literate at university level is a long and laborious process which entails gathering knowledge of particular subject matter areas and aspects of the target language itself as well as developing individualised strategies for understanding, discussing, organising and producing texts.

However, apart from purely linguistic knowledge, processing and producing academic texts requires a considerable degree of conceptual and cognitive involvement. Numerous studies into the development of university-level academic literacy have suggested that the completion of academic tasks by novice academic readers and writers is associated with activating specific thinking processes and investing a significant degree of intellectual effort (Bizzell, 1992; Leki, Cumming, & Silva, 2008; Swales, 1990). Taking on the perspective of inexperienced EAP users, Stierer (1998) points out that the comprehension and interpretation of academic content requires high intellectual and conceptual skills because advanced, academic literature is presented in various modes and genres and addresses complex issues. Additionally, performing academic tasks is contingent on the mastery of some degree of background knowledge and insight into specific disciplines and

fields of study as manifested in familiarity with specialist concepts, theories, methods as well as language (Warren, 2003).

As regards the completion of specific academic tasks, it appears that integrating information from external sources with students' own ideas in academic writing poses a considerable challenge, especially to inexperienced writers. Drawing on the academic performance of entry-level college students, Flower (1990) highlights the cognitive demands inherent in reading-to-write assignments which require the consolidation of a source text with an individual contribution within the bounds of the specified rhetorical purpose. She observes further that students' perception and conceptualisation of writing tasks is highly influenced by their educational background, the context of schooling, and prior assumptions about writing.

In fact, research suggests that the transition from secondary to tertiary level academic literacy instruction is a particularly sensitive period for many students across various learning contexts. It has been pointed out that, in terms of academic literacy skills, this transition involves essentially moving away from composition/creative/general English writing to constructing academic, purpose-driven texts (Bizzell, 1992). An interesting insight into the relationship between the two writing traditions comes from a series of studies conducted by Ilona Leki (Leki, 1995; Leki & Carson, 1994, 1997). Leki (1995) followed the academic literacy experiences of five ESL students enrolled at a semester-long writing course an American university and determined a number of strategies utilised by students to cope with academic writing tasks they were confronted with. The strategies identified included relying on past writing experiences and searching for models. Leki and Carson (1997) compared different types of writing instruction (creative vs. EAP; with vs. without a source text; text-responsible writing vs. writing without responsibility for content) and investigated the students' perceptions of these varying writing conditions and traditions. The results showed that source-based EAP writing was perceived as a reproductive, accurate and non-inventive presentation of the ideas of others in combination with the author's own (limited) contribution, scaffolded lexically and structurally around the original text (Leki & Carson, 1997, pp. 55–56). The presence of a clear target audience was pointed out as an advantage of this kind of writing. Creative writing, on the other hand, was described as a means of personal expression and style and was associated with a feeling of freedom and an absence of responsibility (p. 50). Overall, participants observed that the two writing traditions constitute 'completely different worlds'. In a different study, Leki and Carson (1994) investigated students' perceptions of the relationship between the writing instruction they received as part of their university-level EAP course and the actual writing tasks they were required to perform. The authors stressed the importance of needs-analysis in designing EAP instruction and noted that limited vocabulary knowledge constituted one of the major obstacles to academic achievement.

More recently, an interesting line of research has addressed the issue of the relationship between metacognitive genre awareness and the development of academic literacy. For example, Negretti and Kuteeva (2011) provide evidence that metalinguistic awareness of academic discourse positively influences L2 students'

ability to interpret and compose academic texts. Negretti (2012) traces the development of what she called 'rhetorical consciousness' in novice academic writers and its relationship with students' perceptions of the writing task, awareness of used strategies, and evaluation of their writing. Finally, Philips Galloway, Stude and Uccelli (2015, p. 221) investigate the use of metalanguage to describe the academic register in adolescent learners and conclude that it provides a "window into their beliefs and attitudes about academic learning".

To conclude, academic literacy emerges as a plural, heterogeneous concept which includes a variety of skills (both linguistic and intellectual), which, when operating in unison, allow language users to achieve specific academic goals by producing intelligible, appropriate and relevant academic texts. One of the major factors identified in relation to shaping academic literacy practices at the tertiary level is previous academic and non-academic experience as well as the background knowledge which students bring with them into the university classroom. To put it differently, university students are not virgin territory when it comes to literacy instruction and might have some preconceptions regarding the construction and interpretation of academic texts. We believe that these preconceptions need to be taken into consideration when designing EAP programmes at the tertiary level. Therefore, the central objective of this study is to shed light on the learners' ideas, beliefs and perceptions of academic language. An attempt is made to identify those aspects of EAP which deserve most pedagogical attention and instructional focus.

3   Method

Academic language presents a number of linguistic and conceptual challenges for advanced foreign language learners pursuing third-level L2 education. High school graduates entering third-level programmes are expected to make a smooth transition from secondary level L1/L2 literacy skills to tertiary level L2 academic reading and writing. In this paper we adopt a learner-centred perspective and seek to provide insight into the conceptualisation of academic language by the learners themselves. Therefore, the main issue addressed here is how undergraduate students perceive the academic variety of English. With these goals in mind, the following research questions have been formulated for this study:

1. How do undergraduate students conceptualise academic register before and at different points during EAP instruction?

   (a) Which features of academic register and writing are perceived as most distinctive?
   (b) (How) does the perception of EAP evolve as a result of raising students' awareness of the genre in the course of EAP instruction?
   (c) What aspects of EAP cause the greatest difficulty to undergraduate students?

3.1   Participants

The participants were ninety nine undergraduate students ($N_1 = 32$, $N_2 = 36$, $N_3 = 31$) working towards their BA degree in English (Teaching English as a Foreign Language, English literature, linguistics or applied linguistics) in two different Polish academic settings. Two groups (N_1, N_2) were enrolled at the 2nd year of a 3-year teaching training programme at the University College of English Language Teacher Education in Warsaw. One group (N_3) attended the 2nd year of a general BA English philology programme at the John Paul II Catholic University of Lublin. All participants were of Polish origin, speaking Polish as their mother tongue and English as a foreign language. At the time of the study, they were between 20 and 23 years old. They had received formal instruction in English for 11.8 years on average and experienced little or no exposure to native English in a naturalistic setting. The level of L2 proficiency was not controlled for. However, the curricular requirements specified for both institutions assume students have reached the B2+/C1 level of proficiency (CEFR) with the completion of the first year of study. Participants had no prior exposure to EAP instruction.

The EAP instruction the participants were exposed to in the course of the investigation continued over a period of two semesters (October 2012–June 2013) and included a two-semester academic reading and writing module (2×30 h, 2×30 h) targeting a variety of aspects of EAP such as academic vocabulary, sentence structure, text structure and organisation, text coherence and cohesion, the use of conventionalised language, the writer's stance, citing conventions, and authorship issues. The reading course involved the analysis of authentic academic texts representing a variety of genres (an article in a journal, research report, research synthesis, a chapter in a monograph/book, a BA dissertation). The texts were analysed in terms of both the form and content. The writing course focused on integrating input texts with learners' own ideas and provided extensive practice in paraphrasing and summarising the work of other authors. The goal of the writing course was the preparation of a long research paper at the end of the second semester. Participants were given extensive information about the character and purpose of the research and signed written consent forms to participate in the study.

3.2   Procedure

The data for the study were elicited using open-ended questionnaires. The data collection procedure was carried out at three points during the instructional period of one academic year (at the onset, in the middle and towards the end of the course). No time or word limits were imposed and participants were encouraged to respond freely. The answers were provided in writing.

The questionnaires consisted of a set of questions targeting two aspects of academic language and academic literacy skills: the distinctive features of EAP and

Table 1 Data-collection procedure

	Distinctive features of EAP	Areas of difficulty
Time 1 (October 2012)	×	–
Time 2 (March 2012)	×	×
Time 3 (June 2013)	×	×

major areas of difficulty arising in relation to academic tasks. At Time 1 learners were requested to address only two questions intended to shed light on their perception of academic language: What are the characteristic features of an academic text? How is it different from a non-academic piece of writing? At Times 2 and 3 the same questions were used. However, by this time participants had already participated in EAP instruction and had been exposed to a variety of academic texts and tasks. Therefore, a second question concerning the problematic aspects of EAP was added: Which aspects of academic register do you find the most difficult? Table 1 provides an illustration of the data collection procedure along with the relevant time-frame.

The participants' answers were copied and coded thematically by the author according to issues raised. For each question a set of thematic areas was identified and the proportion of participants who brought up a particular aspect of EAP or area of difficulty was established. The answers were then analysed in terms of the potential changes in learners' conceptualisation of EAP over time and as a result of EAP instruction. The data were analysed throughout the data collection period. The results are presented and analysed in the following sections.

4 Results and Discussion

4.1 Distinctive Features of the Academic Register

The first issue addressed in this study concerned the conceptualisation of the academic register at different points of EAP instruction by undergraduate students (Research Questions 1a and 1b). Here, participants were instructed to indicate those features of the academic language, which, in their view, clearly distinguish EAP from other—non-academic—registers and genres. The goal of this part of the analysis was two-fold. First, we intended to identify the participants' prior beliefs, ideas, experiences and knowledge of academic language resulting from earlier L1 and L2 literacy instruction practices. Secondly, the answers collected early on, at the onset of the course, provided a convenient benchmark for further analysis which made it possible to investigate the development of learners' perceptions during the instructional period. The results of this part of the investigation are presented in Table 2. It shows a set of features of English academic register that were identified

Table 2 Students' perception of the distinctive features of EAP

Feature of EAP	Time 1	Time 2	Time 3
Academic/specialized vocabulary	65 %	50 %	70 %
Content/topics covered	65 %	38 %	50 %
Coherence and cohesion text organization and structure	40 %	28 %	35 %
Comprehension difficulty/cognitive effort involved in processing	28 %	48 %	12 %
Writer's position/tone	x	23 %	56 %
Syntax	x	23 %	51 %

by participants as characteristic of this genre along with the proportion of students who brought them up.

A number of important observations concerning learner perception of academic language can be made on the basis of these results. Four core features of the academic register emerge from the analysis of the data collected at Time 1. Three of them—the use of specialised vocabulary, the range of topics covered and aspects of text organisation and structure—concern the linguistic make-up of academic texts. The highly specialised nature of academic writing, which is manifested on the lexical and propositional level was indicated as the most prominent feature of EAP by more than half of the participants. The following remarks made at Time 1 with reference to the vocabulary used in academic texts provide further evidence that specialised lexis is one of the most distinctive features of EAP, according to the participants:

(…) not easy to be known and not used by everyone (…)
(…) the meaning of words is not clear and obvious (…)
(…) a wide variety of new words (wealth of words) (…)
(…) special and unique words or phrases, even poetic (…)
(…) meaning different from non-academic English (…)
(…) complex, lots of keywords which are repeated (…)

Similarly, academic content is seen as highly specialised in that it revolves around serious and important topics described in our data as "crucial matters", "high ideas" and "professional topics" discussed in texts "with somewhat superior meaning."

Interestingly, despite close to no prior contact with EAP, nearly one third of the participants associate reading and writing academic texts with comprehension difficulty and increased processing effort. This suggests that academic language is perceived as difficult and suffers a somewhat bad reputation among language learners.

In sum, the image of academic texts that emerges from these descriptions suggests that academic form, including complex syntax and specialised, sophisticated vocabulary obscures academic content (which already poses a challenge in itself). Unfortunately, the inability to access academic content easily in the reading process

gives rise to negative emotions. Consider the following examples of statements describing EAP in general provided at Time 1:

> (…) it's bloody pompous (…)
> (…) definitely not pleasurable (…)
> (…) it's a real pain (…)
> (…) it's written for showing off how smart the author is (…)
> (…) it makes us sound more clever than we really are (…)
> (…) obvious things described in such a complex way that the reader feels bored and irritated (…)

These statements reveal a strongly emotional and rather negative attitude towards academic language, which is associated with lack of pleasure, irritation and boredom. Some hostility towards the authors of academic texts can also be detected in the statements describing their attitude to academic form. In fact, they are accused of using academic language as a means of manifesting their (questioned) intelligence. Let us now consider the possible changes in learners' attitudes towards the academic register.

As indicated earlier, the results presented in Table 2 show the development of students' perception of EAP. Two observations can be made here with reference to the data collected at Time 2. Firstly, the writer's stance becomes recognised as an inherent feature of academic texts by 23 % of participants. Data from Time 3, in which more than half of the learners pointed out the position of the writer as a characteristic feature of EAP, provide further illustration of this trend. It is worth noting that some participants seem bewildered by the distance created between the author, the text and the target reader and the unemotional tone of EAP. This is well illustrated in the following statements provided by the participants:

> (…) I think the author is hiding (…)
> (…) as if the author was not there (…)
> (…) it presents the author point of view in a disguised way (…)
> (…) it avoids saying things bluntly and stating one's opinion (…)

Another EAP feature noted by participants at Time 2 (and also at Time 3) is the complex syntactic structure of academic writing. As regards the syntax of academic texts, participants noted the length and complexity of academic sentences and reported a high incidence of passive and impersonal structures. With half of them mentioning syntax at Time 3, it emerges as one of the most distinctive features of EAP in our study.

Overall, it needs to be stated that the picture that can be deduced from the analysis of the data in Table 2 across the whole instructional period is fairly consistent. Five aspects of EAP in total are identified by participants as its hallmarks with each of them recognised by more than half of the students. The use of specialised vocabulary (70 %), the writer's position (56 %) and text structure (55 %) are judged the most distinctive features of the academic register. Remarkably,

participants reported particular appreciation of the organisation and structuring of academic texts. In fact, the clarity, transparency and predictability of text structure evoked truly positive emotions:

> (…) it has a perfect structure and can be example for the students (…)
> (…) has structure conducted by perfect rules (…)
> (..) it is a model piece of writing constructed according to rules (…)
> (…) logically developing line of arguments (…)
> (…) logical and explicit—text divided into cohesive and coherent sections (…)
> (…) clearly formulated thesis and valid arguments (…)

The syntax and propositional content of academic writing were also found to be the among the most representative features of the genre.

Last but not least, one more crucial development of learner perception of EAP that needs to be mentioned concerns the problems related to understanding academic texts. Although reported at Time 1 by 28 % of participants, and at its peak at Time 2 by 48 %, this aspect of academic language was only mentioned by 12 % of students at Time 3. This finding indicates clearly that towards the end of the instructional period fewer learners perceived EAP as a cognitive and intellectual challenge. It also suggests that the EAP instruction delivered to students was effective in that it alleviated their fears and allowed them to believe that they can approach academic reading and writing tasks autonomously and successfully.

To conclude, learner perception of EAP underwent considerable changes as a result of the instruction provided. It raised the participants' overall awareness of the genre and made them feel more at ease with complex academic tasks. Regular exposure to academic texts and practice in academic writing allowed students to recognise the following key aspects of EAP: rhetorical stance, syntactic and lexical complexity and text structure. The initial negative attitudes and anxiety were replaced by more positive attitudes and a feeling of satisfaction and fulfilment:

> (…) the ability to read an analyse such texts makes me feel like someone special (…)
> (…) I know it sounds boastful but not everybody can use such sophisticated language (…)

4.2 Problematic Aspects of EAP

The second goal set for this study involved the identification of the most problematic aspects of academic language for undergraduate students receiving regular EAP instruction. In this part of the study, the questionnaire asked participants which aspects of EAP cause them the greatest difficulty (Research Question 1c). Answers were collected at two points in the instructional period: in the middle and at the end. The most challenging aspects of EAP along with the percentage of participants who mentioned them are given in Table 3.

Table 3 Major areas of difficulty for undergraduate students

Problematic aspects of EAP	Time 2	Time 3
Academic/specialized vocabulary	45 %	44 %
Comprehension difficulty cognitive effort involved in processing	76 %	x
Syntax	42 %	26 %
Coherence and cohesion text organization and structure	x	39 %
Writer's position/tone	x	24 %
Authorship issues citing conventions	32 %	53 %

As can be seen in Table 3, having completed one semester of EAP instruction, the participants were able to pin down four aspects of academic language which present them with the greatest challenges. The majority of the students reported the difficulty inherent to comprehending academic texts. They declared that the process of reading requires a considerable cognitive effort, which at times exceeds their intellectual and conceptual capacities. A comment provided by one participant summarises aptly the problems connected with understanding academic texts faced by undergraduate students:

> (…) too much at a time—it mind-bleaches the reader who switches off and no longer comprehends it, just looks through it mindlessly like a zombie (…)

Other participants provided a similar perspective and described academic reading as a laborious and discouraging process which requires special skills:

> (…) the readers should deduct [*sic*] the pun (…)
> (…) you have to more than just 'read'—you have to understand it (…)
> (…) the reader does not always know what the text is about (…)
> (…) has a meaning that can be deduced and is not visible at the first spot (…)
> (…) you have to have some special skills to understand it (…)

However, when we examine learner attitudes towards text comprehension at Time 3, it becomes evident that the problem is non-existent, as none of the participants made a reference to it. This result is consistent with an observation already made in the previous section. It appears that the participation in EAP classes had some impact on the learners' ability to understand and interpret academic text (or at least their perception of it). An analogy can also be drawn here with regard to the results concerning the lexical content of academic language. As pointed out earlier, academic texts make use of a wide range of specialised, sophisticated and rare words and phrases which might obscure the meaning of texts for novice readers. This aspect of EAP is perceived as the most prototypical but at the same time the most challenging. It also appears that the initial concerns over syntax (as reported by 42 % learners at Time 1) decrease towards the end of the academic year with only 26 % of the participants reporting it as an area of difficulty at Time 3. Two other features of EAP, rhetorical stance and text structure, which were identified as the most distinctive aspects of the genre, appear to be sources of potential difficulty.

As far as the writer's position is concerned, this finding comes as no surprise—we have already seen that participants had little awareness of this distinctive feature to begin with. It seems natural then that they need time and practice to embrace it in its entirety.

A closer examination of the data in Table 3 reveals the presence of an aspect of EAP which has not been mentioned yet—authorship issues and citing conventions. More than half of the participants indicated it as a problematic area, suggesting that it is an area of potential concern for EAP educators. Our results show that authorship issues pose a problem both for academic reading and writing. As regards reading, one learner commented: "instant referring to the literature—it's interruptive and I lose the point." It appears that novice academic readers are unaccustomed to the sight of in-text author citation and get stuck whenever they come across a name, which slows down the reading process. As for writing, participants experience considerable difficulty with crediting sources, simply because they were never required to do it in general English composition writing. Clearly, the mastery of complex citing conventions is a long-term goal, which cannot be achieved in the course of a single instructional period.

5   Conclusion

In this study we set out to investigate learners' perception of EAP at the academic level. We approached the issue from two perspectives. First, distinctive features of academic language were identified and major difficulty areas surveyed. The analysis returned consistent results. The most salient, but at the same the most challenging aspects of EAP established in the course of our investigation include academic vocabulary and rhetorical stance. Furthermore, we provided evidence of a facilitative and positive influence of EAP instruction on the learners' academic performance and perception of the genre.

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Assessment of Language Learners' Spoken Texts: Overview of Key Issues

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Abstract Since speaking is perceived by many as the key manifestation of ability in a foreign language, it is not surprising that learners are required to engage in different types of oral target language production in the classroom, with the spoken texts they produce coming in all shapes and sizes, from monologues to dialogues, from monitored to spontaneous production, as well as from one-word responses to longer contributions to ongoing interaction. Whatever the context and educational level, it is clearly necessary to assess spoken language and this should happen not only during oral interviews in the course of formal examinations, but also in regular classrooms. Evaluation of this kind, however, brings with it a number of major challenges, particularly with respect to how it should be conducted and what criteria should be applied, taking into account the specificity of a particular class, course or program. The aim of the paper is to provide an overview of the crucial issues related to the assessment of spoken discourse, grounded in both theory and research findings, with a view to offering a handful of useful recommendations for pedagogy, on the one hand, and considering how attainment can best be operationalized in empirical studies, on the other.

1 Introduction

As Bygate (2010, p. 413) aptly points out, "[h]istorically, the teaching and testing of speaking have tended to suffer an uneasy relationship with the major dominant approaches to language methodology". This is without doubt the case if we consider the fact that while in some teaching methods and approaches (e.g., grammar

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translation) the skill was deliberately relegated to the sidelines, in others (e.g., the audiolingual approach or the functional-notional approach) it primarily served the purpose of increasing mastery of different elements of the target language (TL) system, be they grammar structures, phonemes or exponents of language functions, with little importance attached to spontaneous communication, in others yet (e.g., the comprehension approach or the natural approach), oral production was delayed until learners' have built up their competence through listening. This began to change with the advent of communicative (cf. Littlewood, 2011) and task-based (cf. Pica, 2010) approaches to language instruction in which the ability to engage in oral (and written) communication became crucial as a way of developing all aspects of communicative competence, as defined by Canale and Swain (1980), and modified by Canale (1983). These developments notwithstanding, it is perhaps a truism to state that, at present, being able to speak is often seen, particularly by non-specialists, as the key manifestation of an individual's mastery of a foreign language, although it is obvious to specialists that making a comparison of this kind is unjustified. Fully recognizing the fallacy of this assumption, Thornbury (2005, p. iv) writes that "(…) in many ways, the teaching of second or foreign languages has carried on as if knowing and speaking were the same thing", while Nation (2011, p. 444) notes that "(…) speaking has been seen as a central skill in the use of a language (we typically ask 'Can you speak French? Can you speak Japanese?')".

Given such sentiments, it is totally understandable that learners are required to engage in different types of oral language production in the classroom, generating a variety of spoken texts, ranging from monologues to dialogues, from one-word responses to longer utterances or sequences of such utterances, from monitored, form-focused to more spontaneous, meaning-focused, stretches of discourse. A separate issue is the extent to which the right balance is struck between the different types of spoken language that learners are expected to produce, with the reality of many foreign language contexts, including the one in Poland, being that instances of spontaneous oral communication are few and far between. On top of that, teachers are much too often satisfied with short, indexical, truncated responses that do not contribute much to the interaction. All of this has far-reaching ramifications for the assessment of spoken texts, which should be undertaken not only during formal examinations, but also on a more regular basis in the course of language lessons, with the crucial caveat that the ways in which it is conducted and the criteria it adopts have to be adjusted to the specificity of a given class, course and program, and learner needs. Given the significance of the assessment of oral language and the challenges it may pose, the paper is intended to offer an overview of the key issues in this area with the purpose of, on the one hand, informing everyday teaching practice, and, on the other, providing guidelines on how attainment in speaking can be operationalized in empirical investigations.

2 Complexity of Speaking, Its Learning and Teaching

The complexity of the skill of speaking, which, as stated by Tarone (2005, p. 485), makes it "(…) the most complex and difficult to master", mainly arises from the fact that the ability to engage in oral language production hinges on the mastery of a number of interrelated elements, ranging from specific sounds that have to be properly articulated in different linguistic contexts to various pragmatic features which have to be adeptly applied if communication is to proceed smoothly. As the present author commented elsewhere, "[s]uch a huge diversity of influences and the inherent intricacy of their manifold relationships testify to the tremendous complexity of the speaking skill, the inevitable outcome of which is the difficulty involved in its successful development when acquiring a second or foreign language, be it naturalistically, in the classroom or with the benefit of both of these conditions" (Pawlak, 2011, p. 3). The following subsections offer a brief account of the complex nature of the speaking skill and the related challenges involved in learning and teaching it.

2.1 Nature of Speaking

Speaking in an additional language is typically characterized with respect to two intertwined facets, namely the different types of knowledge that learners must draw upon to construct their spoken utterances and the ability to skillfully deploy these resources in real-time, spontaneous communication. The two aspects have been described in the literature in terms of the distinction between *language as a system* and *language in contexts of use* (Bygate, 2002), *form* and *function* (Tarone, 2005), *what learners know* and *what learners do* (Thornbury, 2005), or *oral repertoires* and *oral processes* (Bygate, 2008). They can also easily be related to the concepts of *explicit*, *declarative knowledge*, which can only be applied when sufficient time is available, and *implicit*, *procedural knowledge*, which is automatized to such an extent that it can be used under time pressure in response to constantly changing conditions, as is surely the case with a conversation taking place in real life. A more comprehensive explanation of what oral language production entails comes from Bygate (2010), who discusses it with reference to the following three parameters:

(1) *the spoken repertoire*, which involves a vast array of linguistic resources, which can be *phonological* (i.e., segmental and suprasegmental features), *lexicogrammatical* (i.e., not only morphological, syntactic or lexical features, but also formulaic and pragmalinguistic elements) or *discourse-related* (i.e., sociopragmatic features and pragmatic discourse structures); various constellations of these features are deployed by speakers to achieve their specific communicative goals, which are reflective of the *interactional* (related to building and preserving social relationships), *transactional* (connected with exchanging information) and *ludic* (related to the use of language for

entertainment) functions of oral discourse (cf. Tarone, 2005); it should also be added that the employment of these resources is characterized by *fragmentation* (e.g., little modification or subordination) and *involvement* (e.g., signals of personal identity or group membership), which results in such phenomena as short turns, pausing, hesitations, repairs, etc.;

(2) *the conditions of speech*, which are the corollary of the *presence of an interlocutor* (*or interlocutors*), which brings with it the need for *reciprocity* (i.e., the necessity of making adjustments to one's spoken output in reaction to the interlocutor's knowledge, interest or expectations to ensure his or her understanding and participation) and *time pressure* (i.e., scant planning time, the requirement to allow time for the interlocutors' turns, the need for immediate reaction to what is being said); it is these conditions that account for the fact that oral discourse is fragmented and marked by manifestations of speaker involvement;

(3) *the processes of language production* are illustrated in the models of speech production, both early ones conceptualized for the mother tongue, such as that proposed by Levelt (1989), and those more recent, intended to account for oral production in a second or foreign language, such as that put forward by Kormos (2006); despite some differences, all of them posit the existence of three distinct stages of this process, namely: *message conceptualization* (i.e., activation of relevant concepts and the choice of language in which they are to be encoded, taking account of a wide range of social factors), *message formulation* (i.e., lexical, syntactic and phonological encoding of the preverbal message, with pragmatic features coming into play as well), and *message articulation* (i.e., the execution of the phonetic plan); obviously, monitoring plays a crucial part at all of these stages but is often ineffective due to limited attentional resources, with meaning thus being prioritized over form, fluency over accuracy or vice versa (e.g., Muranoi, 2007; Segalowitz, 2010).

Needless to say, such immense complexity of spoken language and the multitude of factors that impinge upon its production in real time present major challenges for the development of this skill and the instructional procedures that have to be used to enable such development, issues that will be dealt with in more detail below.

2.2   *Learning Process*

The development of the speaking skill can be explained with reference to different theoretical positions, both psycholinguistic and sociolinguistic in nature, but, due to space limitations, only the most prominent will be outlined here and only their most important tenets will be presented. One possible stance is to adopt a comprehension-based perspective, which is based on the assumption that learners first have to develop their TL knowledge through access to linguistic data and only later should they be required to engage in the production of their own utterances.

This was done by Krashen, who postulated that second language development happens thanks to access to large quantities of comprehensible input (i.e., such that contains linguistic features slightly exceeding the current level of the learner) and famously stated that "[s]peaking is a result of acquisition and not its cause" (1985, p. 2), but also vanPatten (2002), who focused on learning grammar, arguing that learners should pay attention to form-meaning mappings and be taught to employ optimal input processing procedures rather than produce targeted grammar structures. Since there is copious empirical evidence that massive exposure to comprehensible input, as is the case with immersion classrooms, does not guarantee the emergence of the ability to produce accurate, coherent and precise output that would respect pragmatic and sociocultural norms (cf. Swain, 2005), it seems indisputable that the learning of speaking should involve rich opportunities to engage in oral production of the target language. In fact, this is to a greater or lesser extent the main tenet of other major theoretical models that can be brought to bear to account for the development of speaking skills.

One example are interactionist approaches, represented by Long's (1985, 1996) interaction hypothesis, together with its subsequent reformulation, as well as Swain's (1995, 2005) output hypothesis. When it comes to the earlier version of Long's (1985) hypothesis, it posited that it is not a priori linguistic simplifications, but, rather, negotiation of meaning and interactional modifications taking place in conversational discourse that make input comprehensible, thereby aiding acquisition. The amended version (Long, 1996) goes much further and, recognizing the role of attention and noticing in language learning (cf. Schmidt, 1990), it assumes the existence of a direct link between negotiated interaction and interlanguage development. More precisely, it is hypothesized that the interactive work that interlocutors do in order to ward off or resolve communication problems assists acquisition by making linguistic features more salient in the input, generating corrective feedback on erroneous production, preferably in the form of recasts (i.e., reformulations of incorrect utterances that preserve their intended meaning), and providing learners with opportunities to attempt self-correction and produce modified output. Such a view of the role of interaction is to a large extent mirrored in Swain's (1995, 2005) output hypothesis, according to which it is of paramount importance that learners should rely not only on semantic processing, which is required in comprehension, but also on syntactic processing, which has to be harnessed for the purpose of effective TL production. She places specific emphasis on the contribution of what she labels *pushed* or *comprehensible output*, which is accurate, coherent and precise, and which can be triggered by means certain corrective feedback moves, that is prompts (e.g., clarification requests or elicitations that place the onus on the learner to attempt self-repair; see Sect. 3 below). In her view, apart from the obvious role of enhancing fluency, output of this kind brings with it other important benefits, such as allowing learners to notice gaps in their interlanguage systems, enabling them to test hypotheses about how the TL works, and fostering conscious reflection on language use.

The importance of oral production in language learning is also stressed in skill-learning theory, which is predicated on the claim that, as is the case with any other skill, the acquisition of a foreign language consists in a gradual move from initial *declarative knowledge*, which is explicit and entails controlled processing, to implicit, or at least highly automatized, *procedural knowledge*, which allows spontaneous, largely effortless performance (cf. DeKeyser, 2001, 2007, 2015). Such a change has both a quantitative and qualitative dimension, and involves the processes of *automatization*, which is related to faster, more accurate task execution, as well as *restructuring*, which involves amending the relationships between the various subcomponents of knowledge, thus improving access. To be successful, these processes call for the right kind of practice, which can be controlled (e.g., drills, exercises) at the stage of developing declarative knowledge and ensuring its proceduralization so that correct utterances can be produced, but has to become meaningful and spontaneous at the stage of automatization and be accompanied by different forms of feedback, whether recasts or prompts. The necessity of spoken output in language learning is also postulated by sociocultural theory (e.g., Lantolf & Thorne, 2007; Lantolf, 2011), which in fact considers social interaction as the key tool in mediating mental activity. As Mitchell, Myles, and Marsden (2013, p. 221) comment, "[t]hrough language, for example, we can direct our own attention (or that of others) to significant features in the environment, rehearse information to be learned, formulate a plan or articulate the steps to be taken in solving a problem". Thus, learning of a foreign language first takes place on the social plane and only later on the cognitive plane, as language subsystems and skills gradually become internalized, rendering the move from other- to self-regulation possible. For such development to take place, it is essential that learners interact with more proficient TL users, labeled *more knowledgeable others*, be they teachers or other learners, and this interaction should be carried out in their *zone of proximal development*, so that they can attain in collaboration with others communicative goals that they would be incapable of achieving on their own. All of this calls for oral language production, whether it involves *private speech*, the use of complex forms over several turns, known as construction of *vertical structures*, or participation in *languaging*, or collaborative discovery of second language knowledge (cf. Ohta, 2001; Swain, Lapkin, Knouzi, Suzuki, & Brooks, 2009).

2.3   Challenges of Instruction

It is obvious that language teachers are confronted with a major dilemma when it comes to the development of the speaking skill, a situation that is likely to generate a considerable deal of frustration. This is because, on the one hand, in light of the undeniable importance of this skill and the ubiquitous expectation that it should be the main goal of foreign language education, they have to do their utmost to create opportunities for its development, which inevitably entails requiring learners to produce a variety of spoken texts in the course of language classes. On the other

hand, they are aware from the very outset that it is extremely difficult, if not impossible, to conduct instruction in a way that would ensure the mastery of all the dimensions of speaking mentioned in Sect. 2.1, not to mention developing the ability to deploy them effectively in real-life conversations. In fact, this difficulty is by no means confined to learners struggling to improve their command of a foreign language at different educational levels and in different types of schools. As the present author noted in an earlier paper, "(…) even advanced learners, such as those studying foreign languages for professional reasons (i.e., teachers, translators, linguists), who have apparently mastered their formal aspects, experience great difficulty with deploying these resources in spontaneous communication, let alone the fact that emulating the distinctive characteristics of speech and adjusting it to various contextual, social and cultural variables is typically beyond their reach" (Pawlak, 2011, p. 6). Such problems are certainly more acute in foreign than second language contexts and they can be attributed to a multitude of issues. These are related to, for instance, the scarce amount of time teachers have at their disposal, the nature of classroom interaction which cannot be expected to recreate the conditions of naturalistic discourse, the still scant access to the TL outside school despite the opportunities afforded by the Internet or Internet-based communication, but also the qualifications of teachers whose speaking skills are lacking not only with respect to sociolinguistic, discourse or strategic competence, but also, surprisingly, different aspects of grammatical competence (cf. Canale & Swain, 1980; Canale, 1983). Such difficulties are often further exacerbated by the curricular goals, the characteristics of teaching materials and examination requirements.

All of these obstacles notwithstanding, as mentioned in the introduction to this paper, learners are expected to perform a wide range of speaking tasks in the classroom, which come in all shapes and sizes, requiring oral language production in monologues or dialogues, such that is monitored (e.g., a grammar exercise) or to some extent spontaneous (e.g., a picture-description task), that varies in length (e.g., an utterance consisting of several words or a piece of text composed of many utterances) and conditions of use (e.g., learners may or may not be given planning time). The basic types of oral production that learners can be asked to carry out during language lessons and that are also used when assessing speaking skills are described by Brown (2004, 2001) in terms of a continuum, ranging from those least to most spontaneous, unmonitored and demanding. They are as follows:

(1) *imitative*, which is limited to single words, phrases or sentences and has the purpose of focusing on a specific component of TL form (a sound, a lexical item, an intonation contour) rather than encouraging an exchange of meaning;

(2) *intensive*, where short stretches are produced with the aim of practicing or manifesting command of some TL forms, be they phonological, grammatical, lexical or pragmatic (e.g., a one-sentence response to a picture cue, completion of sentences or dialogues); while understanding is needed for task completion, the requirement for interaction is minimal, if at all present;

(3) *responsive*, which involves exchanges, limited to at best several turns and consisting of short replies to questions posed by the teacher or other students, thus constituting examples of what has been referred to as *IRF questioning* (i.e., initiation—response—feedback; cf. van Lier, 1996); while interaction of this kind can be authentic and new meanings can be conveyed, it is typically based on information already known to all participants;

(4) *interactive*, where longer and more complex exchanges take place, which sometimes involve more than one participant and may call for adherence to sociocultural norms or pragmatic conventions, as the case might be in whole-class discussions or various kinds of pair- and group-work tasks; such oral performance can be transactional or interpersonal, with both allowing spontaneous conveyance of meaning;

(5) *extensive*, which requires somewhat higher proficiency levels and involves monologic performance in the form of speeches, oral presentations, story-telling or oral reports, with opportunities for interaction on the part of listeners being severely limited; such extended production often involves more deliberative and formal language styles, with speakers planning their contributions carefully and ensuring that their utterances are accurate, appropriate, coherent and precise.

Brown (2001, 2004) also draws our attention to the fact that the different speaking tasks that are used in the classroom, together with the types of oral performance they involve, should be designed with the purpose of allowing learners to gain some measure of control over the various *microskills* (e.g., producing reduced forms, using different grammatical forms to express a given meaning, monitoring one's oral production, falling back on communication strategies to convey intended messages) and *macroskills* (e.g., using appropriate styles, registers, pragmatic norms or conversation rules, emphasizing new information) of speaking.

It is clear that the types of oral production that learners are requested to engage in, the kinds of tasks that they are instructed to complete, and the microskills or macroskills that they are expected to master are bound to differ from one proficiency level and instructional context to another. In the case of elementary school children who have been learning a foreign language for just a few months, for example, oral performance is likely to be mainly imitative, intensive and responsive, with only a few basic microskills being honed. With time, as learners become more proficient, they have more experience with the TL and their knowledge of the world is extended, it will be possible to considerably increase the range of speaking activities that they will be requested to perform and the speaking microskills and macroskills that can be practiced. The most ambitious goals will be reserved for university students majoring in a foreign language and aspiring to be teachers, translators, interpreters or other professionals for whom adept use of the TL is crucial. In this case, however unrealistic this goal might prove to be in practice, the expectation is that students will be able to engage in all kinds of oral language production and master all the microskills and macroskills, being able to communicate effectively in most of the situations they might face in different walks of life.

Irrespective of a specific context, though, the teaching of speaking is fraught with similar problems in foreign language settings, related, among others, to such issues as: (1) insufficient emphasis on spontaneous production of spoken texts, with learners seldom being afforded the opportunity to use TL forms in communicative tasks, (2) inadequate focus on interactive use of language, with the consequence that learners often do not know how to conduct conversation (e.g., openings, closings, turn-taking), (3) little emphasis on extended oral TL production, with teachers, even those in classes specifically dedicated to practicing speaking in foreign language programs, frequently being content with utterances comprising single words or sentences, (4) the nature of classroom interaction, which does not incorporate a sufficient amount of pair- and group work, particularly such that would be meticulously planned, executed and followed by appropriate feedback, (5) the choice of communication tasks used, with a marked preference for discussion activities rather than those involving information gap and requiring contributions from all participants, which perhaps follows from the fact that the latter are much more difficult to design, (6) the type of target language production required, with little concern for sociopragmatic and pragmalinguistic features, mainly because the teachers themselves lack the requisite awareness, (7) little emphasis on the use of the right kind of communication strategies, such that are of the achievement type and involve the use of the TL, which results in frequent cases of avoidance or reliance on the mother tongue when communication problems arise, and (8) regular use of the first language by teachers and students alike, not only in the face of difficulty in understanding or expressing the intended meaning but also to talk about things or events totally unrelated to the lesson, thereby laying bare the artificiality of classroom interaction (cf. Pawlak, 2004, 2009, 2011, 2015). These are serious problems which, on the one hand, have a bearing on the extent to which learners are able to gain command of speaking skills, and, on the other, given the close relationship between the ways in which the production of spoken texts is taught and evaluated, may determine the nature of assessment of speaking, a point to which we now turn our attention.

3 Assessment of Spoken Texts in the Classroom

As Luoma (2004, p. 1) aptly comments, "[a]ssessing speaking is challenging (…) because there are so many factors that influence our impression of how well someone can speak a language, and because we expect test scores to be accurate, just and appropriate for our purpose. This is a tall order, and in different contexts teachers and testers have tried to achieve this through a range of different procedures". Bygate (2010, p. 429), in turn, points to the importance of what is known in the literature as *washback*, or "(…) the effect of testing on teaching and learning" (Hughes, 2003, p. 1), pointing out that "[t]he question of concern (…) is the extent to which testing practices can illuminate the teaching enterprise and vice versa". These vital considerations are equally pertinent to large-scale assessment of

speaking skills, such as that being part and parcel of standardized examinations given by specialized institutions, and the evaluation that teachers undertake in their classrooms. While it is the latter that is the main concern of this section, the discussion will be augmented by insights from the former whenever deemed necessary.

The evaluation of the different types of oral performance that learners engage in and listed in the previous section calls for the utilization of different types of assessment tasks, examples of which are given below (cf. Brown, 2004):

(1) *imitative speaking*—different types of repetition tasks, where learners are required to repeat the stimulus, ranging from single words to short sentences, or, in some cases, read the prompts aloud;

(2) *intensive speaking*—direct response tasks (i.e., they are mechanical and entail eliciting specific TL features), read-aloud tasks (i.e., more than one sentence is read up to a paragraph or two), sentence/dialogue completion (i.e., learners provide the utterances of one of the speakers), picture-cued tasks (i.e., pictures may differ in complexity and series of pictures can be used, requiring the use of single words or full sentences), or translation of limited stretches of discourse (i.e., words, phrases or sentences);

(3) *responsive speaking*—question and answer (i.e., referential questions are employed to which the teacher does not know the answer and which trigger short, meaningful interactions), giving instructions and directions (e.g., describing how to prepare a dish or how to get from one place to another), or paraphrasing (e.g., orally summarizing a telephone message);

(4) *interactive speaking*—interviews (i.e., learners and teachers actually talking to each other, with long stretches of interaction, a considerable degree of unpredictability and different types of language), role plays (i.e., students have the opportunity to interact according to some guidelines which can elicit specific types of language discourse), discussions and conversations (i.e., they ensure a substantial degree of authenticity and spontaneity), or different games (i.e., a more informal type of assessment);

(5) *extensive speaking*—oral presentations (e.g., concerning topics covered in a speaking or content classes), pictured-cued story-telling (e.g., sets of pictures can be used but standalone photographs can be described as well), retelling a story or relating a news event (i.e. quite long and complex stretches of discourse are produced), or translation (i.e., longer texts are the focus, such as dialogues, directions, descriptions of events).

Obviously, it is necessary in each case to come up with clear-cut assessment criteria, which are bound to be increasingly more complex and pose more and more of a challenge as we move down the list. For example, while a simple repetition task (imitative speaking) can be assessed in a rather straightforward, holistic manner with the help of a three-point scale (e.g., acceptable, partly acceptable, and unacceptable), things are more complicated in the case of oral interviews, in which case analytic scoring is often employed to provide a much more subtle picture of the ability to carry out conversation. This typically involves the use of separate rating

scales for such aspects of oral production as, for example, comprehension, pronunciation, grammar, lexis, fluency or communicative effectiveness, with the scores being reflective of at least five levels of performance.

In fact, real-time interactions with learners are considered to represent the most valid way of tapping learners' speaking ability and thus it should not come as a surprise that, in the words of Nation (2011, p. 452), "the most researched way of testing speaking is through interviews and the use of scoring scales". A critical issue, however, is what students are supposed to do during an oral interview, which may differ quite dramatically and determine to a great extent the value of this assessment technique. Considerable differences may exist, for example, with respect to the topic (i.e., simple or difficult, known or unknown to the learner, necessitating the use of easy or complex language), the task (e.g., different demands are placed by describing a picture, expressing opinions, telling a story or exchanging arguments with another student) or the interaction format (e.g., one teacher interacting with one student, students talking to each other in pairs), with the effect that interviewees' preferences, learning styles, learning strategies, personalities or general world knowledge may significantly influence the outcomes. A separate issue is the extent to which interviews can be expected to elicit real-life, spontaneous speech, as much depends on the questions asked, the way in which the teacher manages the interaction, the degree to which responses are rehearsed when learners know the issues to be brought up beforehand or emphasis on pragmatic norms and features of spoken language, dimensions that are often neglected, perhaps understandably so, both during the interview and in its evaluation. There is also the critical question of washback, which can be negative when students feel that their abilities were judged unfairly, because of inclusion of a task seldom used in the classroom, the choice of an unfamiliar topic, the unfavourable attitude of the interlocutor, or reliance on rating scales emphasizing some aspects of their performance over others.

What should be stressed at this juncture, however, is that interviews, whether they involve interaction between one teacher and one learner, or one or more teachers and a group of learners, are in most cases used for summative rather than formative assessment, mainly because of the logistical problems that this assessment procedure inevitably involves unless it is an integral part of an examination, a real or mock one. In elementary, junior and senior high schools, this might mean disrupting the daily schedule, curtailing the amount of time devoted to regular classroom activities and having to find things to do for other students, which dictates that such assessment tasks can only very seldom, if ever, be used. Even though they may be drawn upon more frequently in classes specifically dedicated to speaking taught to students majoring in a foreign language, similar problems abound in this context, with the effect that interviews are unlikely to occur more than once or twice in a semester. The main cause for concern, however, is that, irrespective of the educational level and the goals of instruction, other, less logistically demanding forms of assessment of speaking skills, particularly those requiring spontaneous oral TL production, such as presentations, speeches, role plays or picture descriptions, are employed rarely as well and their performance is

usually evaluated holistically and not analytically. While one reason may be the fear that frequent use of these procedures will further reduce the scarce classroom time, another, probably a much more serious one, is that, as signalled above, learners have scant opportunities to engage in communicative tasks, which, given the close link between teaching and testing, may obviate the need for evaluation in this area. This creates a kind of a vicious circle because rare assessment of speaking, may, on the one hand, be responsible for infrequent reliance on tasks calling for spontaneous interaction, and, on the other, dissuade learners from improving their oral ability in their own time (e.g., by using the TL to address friends, recording their oral homework assignments, etc.). Although more common perhaps is informal assessment, which takes the form of comments on or reactions to the language students produce in classroom activities, there is an evident need for more formal evaluation of speaking which should focus not only on longer stretches of discourse (e.g., speeches or presentations), but also on the process and product of pair- and group work (e.g., notes on the language used by students during task performance) as well as regular contributions to classroom interaction (e.g., volunteering answers to questions posed). Moreover, the outcomes of such assessment should be taken into account when determining final grades, which is now hardly ever the case, with most emphasis being laid on the results of written tests.

An extremely important but also blatantly neglected aspect of assessing learners' spoken output in the classroom is the provision of corrective feedback on inaccurate utterances. This was recognized a long time ago by Chaudron (1988, p. 133), who wrote that "from the learners' point of view (…) the use of feedback may constitute the most potent source of improvement in (…) target language development", as well as, more recently, by Larsen-Freeman (2003, p. 126), who wisely commented that "(…) feedback on learners' performance in an instructional environment presents an opportunity for learning to take place. An error potentially represents a teachable moment". As evident from the brief account of the theoretical perspectives on the development of speaking in Sect. 2.2 and the findings of the research they have inspired (see Pawlak, 2014, for an overview), the most beneficial type of feedback is such that is provided in the course of spontaneous meaning and message conveyance as it helps learners notice gaps in their interlanguage knowledge and attempt to modify their output. This stands in contrast to the recommendations found in popular methodology coursebooks, according to which learners should not be interrupted as they speak and correction should thus be delayed until the end of the activity (e.g., Ur, 1996; Harmer, 2007), which is perhaps the reason why many teachers shy away from immediately responding to erroneous utterances, particularly during communicative tasks. Whereas such concerns may be salutary and indiscriminate correction of all errors may indeed do more harm and good, there is abundant empirical evidence that corrective feedback of this kind spurs interlanguage development on condition that it is focused (i.e., limited to one or a predetermined set of linguistic features), output-based (i.e., such that invites learners to attempt self-correction) and provided consistently over a period of time (i.e., it is

not a one-shot affair and errors involving a specific TL form are repeatedly subject to treatment) (cf. Pawlak, 2014). This is not to say, of course, that input-oriented feedback (i.e., such that does not require self-repair) or correction of a variety of errors is not beneficial in some situations (e.g., whole-class discussions). It should also be borne in mind that the effects of any type of corrective feedback are mediated by a range of individual, linguistic and contextual factors, and they hinge on learner engagement (cf. Ellis, 2010). The specific corrective moves that teachers have at their disposal can be divided into *explicit correction*, which is direct and overt, *recasts*, which are input-providing and involve implicit reformulation of erroneous utterances, and *prompts*, which are output-prompting, require self-correction, and can take the form of elicitation (i.e., an overt request to rephrase inaccurate output), metalinguistic feedback (i.e., use of terminology), clarification request (i.e., a question intended to trigger output modifications), and repetition (i.e., either of the entire erroneous utterance or its part), differing in levels of explicitness (cf. Lyster & Ranta, 1997; Lyster, 2004).

Yet another way in which learners' spoken texts can be evaluated and which is only very rarely employed by teachers is reliance on different techniques of alternative assessment. One possibility in this respect is the use of different versions of the *European language portfolio*, suitable for different age groups and educational levels, which contains self-assessment scales related to speaking in different languages, more specifically, to production and interaction. Such scales can also be found in most present-day coursebooks, although they are usually confined to the performance of the specific functions covered in one or more units. Learners could also be asked to keep portfolios, preferably electronic ones, including audio- or video-recordings of their of performance of different types of oral tasks, as this would, on the one hand, allow them to see the progress they make over time, and, on the other, contribute to the development of monitoring and noticing skills. This is closely related to encouraging self-observation, which is fostered through careful examination of successive recordings, and other-observation if the recordings of other learners are inspected, with their oral performance being evaluated with the help of predetermined criteria. The use of such techniques is likely to enhance learners' awareness of different features of spoken output, which may help them not only to self-correct but also to notice and respond appropriately to the corrective feedback they receive, and to provide such feedback on the oral performance of their peers in a more skilful manner. Finally, it is possible to use conferences and interviews or try to get learners to keep journals in which they could comment on their strengths and weaknesses with respect to speaking, trace their improvement, and indicate the problems they experience (see Brown, 2004, for discussion of the types of alternative assessment). While it is clear that the application of such techniques is time-consuming and not all of them may be equally appropriate for all groups of learners, their benefits are difficult to deny, the most important perhaps being the contribution they make to promoting learner autonomy in the development of speaking skills.

4   Assessment of Spoken Texts for Research Purposes

A crucial issue which is rarely addressed in discussions of the evaluation of oral TL production is the need for the use of valid and reliable procedures of assessing speaking skills for research purposes. Such assessment is indispensable, for instance, in experimental, quasi-experimental but also action-research studies, focusing on the development of speaking skills in which the effects of some kind of pedagogic intervention (e.g., inclusion of specific tasks, training in the use of communication strategies, etc.) have to be determined on pretests, immediate and perhaps delayed posttests. It is also essential in the case of correlational research when the purpose is to establish relationships between the investigated individual difference variables and attainment with respect to different TL skills, including the ability to engage in oral performance. Whatever the research design, information about the level of attainment can be operationalized in different ways, such as performance on tasks specifically designed for the purpose of the research, scores on standardized tests, outcomes of oral components of final examinations or self-assessment conducted by learners. However achievement is understood, it is of vital importance to decide in advance on the level of detail which is needed in a particular study, as there is a considerable difference, for example, between a grade, say, on a scale of 1–5, a percentage value or scores on a ten-point scale with respect to different aspects of speaking (i.e., pronunciation, grammar, lexis). What also needs to be considered are potential problems with the validity and reliability of the data collection tools because, for example, the score on a task performed with peers in a relatively relaxed atmosphere in the classroom might differ a lot from that on an oral interview, where anxiety can hugely affect the results or ratings can be slightly manipulated by examiners to compensate for poor performance in other parts of the exam. Not less important is individual variation since some students may perform on specific tasks better than others and some may be more predisposed to objectively self-evaluate their oral ability than their peers. All of this indicates that the best solution for researchers would be to fall back on aggregate measures of oral performance which could integrate the results of oral exams with learners' self-assessment, as this is likely to considerably enhance the validity and reliability of the judgments made.

5   Conclusions and Implications

As can be seen from the foregoing discussion, the assessment of learners' spoken texts leaves much to be desired, irrespective of the educational level or the goals of language classes. This has negative consequences both with respect to establishing the real level of overall proficiency and producing negative washback for foreign language pedagogy which gives too little weight to the need to foster spontaneous communication in the classroom. In the light of this, it is clear that evaluation of

oral performance should constitute an integral and important component of the procedures employed to determine learners' overall TL ability and it should have at least as much influence on the final grades as tests focusing on grammar or vocabulary, the outcomes of which typically play a decisive role in this respect. Since scheduling constraints and scarce amounts of classroom time preclude more frequent use of oral interviews in most instructional settings, teachers should draw on more feasible options, such as regular evaluation of speeches, presentations, picture-descriptions or story-retellings, as well as setting more store by informal evaluation, such as comments on learners' oral output in games, pair- and group-work activities or whole-class discussions, and falling back upon alternative forms of assessment. Given the reciprocal nature of the relationship between teaching and testing, key changes should also be introduced into pedagogical practices since, once opportunities for spontaneous communication become the norm in the classroom, greater attention is likely to be given to learners' ability to successfully engage in real-time communication when assessment is conducted. As indicated on several occasions throughout this paper, however, it would be a mistake to adopt a one-size-fits-all approach, as oral assessment should respect the specificity of a particular class, course and program. Thus, it is bound to differ widely in terms of the procedures used, the frequency with which it is undertaken or the evaluation criteria applied as a function of whether it occurs in a course taught to beginners in elementary school, a group of high school students preparing for a final examination that includes an oral component, and a conversation class taught to English majors aspiring to reach near native-like levels of TL proficiency. Last but not least, valid and reliable evaluation of speaking skills is of vital significance in empirical research, the results of which may often serve as a basis for pedagogical proposals, and composite measures of oral performance, gleaned from different data sources, seem to be the optimal solution in this case. In view of the fact that adept oral performance is so often equated with success in learning second and foreign languages, it is indeed fitting to ensure that the assessment of spoken texts is accorded the status it deserves in language teaching, not only for the benefit of more precise diagnosis of learners' ability but also for the sake of more effective language pedagogy.

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Part II
Constructing Text

"In This Paper I Will Prove …": The Challenge Behind Authorial Self-Representation in L2 Undergraduate Research Paper Writing

Magdalena Trepczyńska

Abstract Developing expertise in EAP writing is a time-consuming endeavour, entailing not only mastery of advanced language forms and functions, but also extensive domain knowledge accumulated through interaction with a large body of reading material. By way of practice, academic writing assignments engage students with textual input from multiple sources to be synthesized, analysed, critically evaluated, responded to and, ultimately, creatively transformed. Writers of academic prose are then not only expected to provide an objective account of the data and perspectives of experts, but also to position themselves in relation to them and mark their own presence in the discourse they create. The experience of many practitioners has shown that projecting one's own identity in the process of developing a thesis, especially when working with source texts in L2 as reference is one of the most challenging academic literacy tasks for novice writers. Discrepancies between L1 and L2 writing cultures, the learners' status in the academic discourse community and their rigid conceptions of academic writing, often enhanced by inconsistent advice offered by instructional materials, might contribute to the excessive dependence of inexperienced L2 writers on source material and to linguistic choices which reduce their agency. This paper looks into the distribution, rhetorical functions and semantic connotations of first person pronouns employed as identity signals by undergraduate students in source-based research papers.

1 Introduction

The writer's identity is an elusive and complex concept in academic writing, which is traditionally associated with the impersonal and neutral transmission of objective content knowledge by a distant researcher. In popular consciousness academic texts are construed as heavily convention-bound and characterised by the detachment of the author from the issues under investigation. This well-established view of academic

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prose has its roots in the positivist conception of knowledge and knowledge-making, which, with the dynamic development of the natural sciences, for many years influenced scholarly thinking as well as the perception of scholarly activity by outsiders. According to this conception, knowledge is a body of generalizable universal truths that exist independently of the context and individuals. Positivists see academic research as objective and purely empirical, and academic expository writing by extension, as devoid of subjective, personal interventions. Geertz (1988, as cited in Hyland, 2002a, p. 1095) refers to it as "author-evacuated prose". In the alternative, constructivist view, knowledge is subjective, created by the individual and inseparable from the social context (Ivanić, 1998). The constructivist perspective, with its emphasis on subjectivity, makes more room for the person behind the ideas and in the writing context it recognizes the writer's persona as a significant element of any serious academic text.

A growing body of research (Ivanić, 1994, 1995, 1998; Lillis, 1997) reveals that much currently published academic writing is not completely devoid of the writer's presence and that this presence manifests itself in ways that can be either very subtle or overt and explicit. In the light of these findings, the view of the author as detached from the text and operating from the background is an oversimplification. As a communicative act, writing conveys content and carries a representation of the writer, seeking recognition by and affiliation with the reader (Hyland, 2002b). Writers perform a range of manoeuvres in their texts in addition to transmitting a message, e.g., they evaluate their own and others' claims and they display greater or lesser confidence in their assertions. Awareness of the writer's voice and the ability to project it in academic writing is an important aspect of academic literacy. The decisions that academic writers take with regard to the degree of personal commitment in their own texts may have a significant impact on their credibility as knowledge-makers in the eye of the reader.

2   Writer Identity in Academic Writing

The concept of identity does not denote a static or fixed phenomenon. On the one hand, it is the self which writers have and express through their texts; on the other, it is the self that emerges from the text in the process of its creation (Brooke, 1991; Tang & John, 1999). Writers are thus free to temporarily suspend their existing selves and choose to invent new ones to project to their readers. The notion of identity was extensively explored by Ivanić (1998), who identified three aspects of this notion: the autobiographical self—"the identity which people bring with them to any act of writing" (p. 24), i.e., identity composed of the life experience, values and beliefs of the person who writes; the discoursal self, i.e., the author's image projected in the writing; and the authorial self, which becomes evident when the writer originates claims of position and takes responsibility for them. Additionally, Ivanić (1998) distinguishes "possibilities for self-hood in the socio-cultural and

institutional context" (p. 27), i.e., selves that are possible within a given context, which may be more or less privileged, depending on how much status they receive in that context.

In addition to its multi-faceted nature, the writer's identity manifests itself in academic texts in varying degrees because conventions of impersonality in academic writing across disciplines differ. Hyland (2000) and Johns (1997) note that academic writing is not homogenous: different disciplines have different practices and discourse conventions. In some disciplinary writing or in different parts of the same text within a given discipline, this authority of the writer as "a maker of meaning" (Ivanić, 1994, p. 12) can be powerfully projected whereas in others it may be subordinated to the objective presentation of data. For example, scholars in the hard sciences tend to assert their presence less strongly, bringing the issues under discussion to the foreground to create a sense of objectivity. In soft disciplines, i.e., the humanities and social sciences, whose domains are not as clear-cut or amenable to precise measurement, writers' commitment to their contributions can be demonstrated more explicitly, thus enhancing an impression of authority (Hyland, 2002b). Projecting the writer's identity by means of explicit signals has also an interpersonal dimension in how it affects the readers' perception of the writer' credibility, competence, authority and potential to influence: "Interpersonal aspects of writing are not (…) an optional extra (…) [but] are central to academic argument and to university success" (p. 357).

3 The Identity of L2 Learners as Writers

The writer's identity is particularly problematic for those directly involved in developing writing expertise in academic discourse in a foreign language—writing instructors and university students. As Hyland (2002b) observes, professional writers were found to make personal interventions in their writing several times more frequently than students, especially in the soft disciplines (as opposed to the hard sciences), with both singular and plural reference, and in all discourse functions (e.g., stating a goal, explaining a research procedure, stating results/claims, elaborating and argument). The academics' commitment to claims is seen particularly in those aspects of texts which entail the greatest risk of judgment and those for which they can be most credited (i.e., presenting and developing an argument). Raimes and Zamel (1997) found, however, that even L1 writers may have problems finding an appropriate voice in their writing.

For L2 writers of academic prose, the task of conveying their authorial self is complex in multiple ways. Like all university students, L2 writers are confronted with a new dominant literacy, and have to employ a different code and find a new voice in which to convey ideas. In order to align themselves with other members of the academic discourse community and successfully engage in its practices, novice academics need to be able to master new types of discourses. When discourses of a

given community are employed, there is strong pressure to take on a new identity—that of a member of that community (Hyland, 2002a, p. 1094). For any new member undergoing the process of enculturation into a given discourse community, this identity may be in conflict with, or at least vastly different from, the roles he or she is familiar with from previous life or educational experience.

Additionally, L2 writers are further constrained in a number of ways. Firstly, they have to learn how to express highly complex content using advanced specialist language while they are still developing their general proficiency in L2. Secondly, they may be influenced by their home writing cultures and have different expectations about the reader's and the writer's roles. Anglo-American academic prose is essentially a writer-responsible one (Hyland, 2003), in which it is the writer who takes it on himself or herself to effectively, i.e., clearly and convincingly, argue his/her stance for the reader. This may be not be the case in learners' own cultural contexts. Thirdly, learners may be confused as to the extent to which the author can safely demonstrate his/her personal involvement because the criteria for the acceptability of personal intervention are not clear-cut. Hyland (2002b), for example, observes that instructional materials offer no or conflicting guidelines concerning this aspect of writing. Some style guides do not address this textual aspect at all, while others offer prescriptive recommendations such as to avoid first person pronouns, to remain objective, opt for tentative claims and adopt an impersonal tone through the use of passive constructions, it-subject sentences, nominalisation, use of hedges, etc. As Tang and John (1999) observe, few manuals seem to address the fact that the first person pronoun is not a uniform category and it can in fact serve to project a range of writer roles in the text. Not surprisingly, all these factors make the use of the first person pronoun particularly suspect from the students' perspective, and adds to a sense of helplessness and uncertainty on the part of learners (Ivanić, 1998). Nevertheless, while it is clearly a problematic area for L2 writers of academic prose, the question of authorial stance in student writing has attracted less attention than that of writer identity in professional academic writing.

4 The Study

4.1 Aims

Although a wide range of linguistic means can be employed by writers to make their presence felt, their identity is the most strongly affirmed by the use of first person pronouns: I and we and their respective determiners: me, my (mine), us and our (ours). Many researchers point to their role in expressing commitment to the statements that follow, and establishing a relationship with the reader (Hyland, 2002a; Tang & John, 1999). Contrary to popular myth, the distribution of the first person pronouns in academic writing should not be viewed merely in absolute terms, i.e., their presence or absence, but rather, as Ivanić (1998) claims, in terms of a continuum of their uses conveying different degrees of authorial power.

The principal aim of the study was to find out to what extent and how L2 undergraduate students signal their authorial presence in their research papers. The focus was on the students' use of explicit markers of authorial stance, i.e., first person pronouns and their related forms, which arguably are the most visible manifestations of the authorial self in the text. Specifically, the research questions addressed were:

1. What is the distribution of first person pronouns in student writing?
2. What rhetorical functions are performed by sentences containing first person pronouns?
3. What types of verbs are used with first person pronouns?
4. What are the semantic referents of first person pronouns in student writing?

4.2   Method

The study involved the quantitative and qualitative analysis of 49 final drafts of 3rd-year students' research papers written over the course of one semester in 2013 and 2014. The papers were composed on topics of the students' choice and approved by their supervisors in a variety of fields: literature (33 papers), culture studies (8 papers), linguistics (5 papers) and applied linguistics-TEFL (Teaching English as a Foreign Language) (3 papers). The mean number of words per paper was 2095 and the total number of running words in the whole corpus was approximately 102,700.

The papers students produced were based on library research. The assignment required the students to make a choice of relevant reading material and provide its effective synthesis in the light of their proposed thesis. The maximum number of sources to be consulted and referred to was five. The students were not expected to design and conduct an experimental study for the purpose of their paper, but to analyse and evaluate existing research, finding links between different topic-related publications relevant to the debate. In the process, they were expected to put forward an arguable thesis or position statement and then provide logical and coherent argumentation to support it, also with adequate citations. The writing process consisted in creating an outline, followed by drafting, revision and redrafting so that the majority of students produced and submitted three versions of their texts. The final versions were subjected to the analysis. Due to the nature of the assignment (i.e., engagement of learners with subjective perceptions, interpretations and opinions rather than objective data found in a typically experimental format), there was some reason to expect a higher frequency of authorial self-references in students' texts compared to that found, for example, by Hyland (2002a) in his students' research reports on studies which followed a typically experimental pattern.

4.3 Results

4.3.1 Distribution of First Person Pronouns

The results obtained for the first research question are presented in Table 1. The average number of overt references to self per paper in the analysed corpus was 6.6 which roughly equals 3 occurrences per 1000 words. Huge discrepancies were observed in the distribution of personal pronouns in individual papers, with as many as 42 first person references in a single paper on the one hand, and 14 papers (approximately a third of the corpus) with no self-identification through pronouns at all, on the other. A high proportion of the first person pronouns, both singular and plural, occurred in the subject position—83.6 and 70.5 % of all first person pronoun occurrences respectively. A high incidence of the plural form we was also noted in the students' papers, all of them single-authored. On the whole, the students do not shy away from using the first person pronoun but they prefer to disguise themselves as a group.

With regard to the location of the self-mentions, as can be seen from Table 1, the largest number of them was found in the main bodies of the texts, and the overwhelming majority of these were realized by the first person plural pronoun. These sections of the research papers were devoted to the review of literature in which the writers summarized and commented on the sources. The students had been instructed that in the process they were supposed to provide some critical evaluation of the material they referred to—a potentially threatening act, which made the writers resort to a defocusing tactic, i.e., using the plural pronoun form, as in the following sentences:

Table 1 First person pronoun occurrences in student writing

Personal reference	Research paper section			All papers
	Introduction	Main body (literature review)	Conclusion	
First person singular pronoun (incl. I, me, my, mine)	40	17	23	80 (24.9 %) (67 in subject position)
First person plural pronoun (incl. we, us, our, ours)	39	148	54	241 (75.1 %) (170 in subject position)
Totals	79	165	77	321

(1) Losing manners and forgetting our rational side is not the right way to stand for what we consider correct or incorrect, and respect should be placed on the top, whichever our ideological tendency is.

(2) Generally speaking, among the traits that we value are decisiveness and stability, especially as far as our opinions and beliefs are concerned.

(3) We are still probably somewhere in between affirmation and rejection of conventions, it was the counterculture that questioned whatever oppressing there was in our civilisation and that dealt with searching for some new ideas but being inspired by the old ones.

As for introductions and conclusions, authorial self-references were almost equally distributed between them. Singular pronouns were as common as plural ones in the opening sections of the papers, and were primarily used to state the purpose, preview the content of the work, and set the background for the discussion, for example:

(4) Therefore, in the following paragraphs, I will elaborate on both similarities and differences between the two accounts.

(5) In this paper I am going to examine how the progress of science, especially astronomy, changed the understanding of traditional Gothic themes between the times of Poe and Lovecraft, which were, respectively, the first half of the XIX century and early XX century.

(6) To test this hypothesis and its consequences for linguistic theory, we will launch a cross-linguistic study into the nature of focus and ellipsis remnants in languages.

(7) There is some indication that the remnant can be contrastive focus, new information focus or contrastive topic in English, but we need to study if these types are attested cross-linguistically, too.

(8) The fantasy novels that I will focus on will be Andrzej Sapkowski's The Witcher Saga, J. R. R. Tolkien's Lord of the Rings and Hobbit, R. E. Howard's Conan the Barbarian, C.S. Lewis's The Chronicles of Narnia, M. L. Kossakowska's Siewca Wiatru and J. K. Rowling's books about Harry Potter.

(9) My examination of the relationship between history and culture will concern works of four authors: Wilfred Owen, Virginia Woolf, Julian Fellows and Pat Barker.

(10) Tales are literary works which we derive basic wisdom about life from.

(11) More often we can hear the opinion that women are more confident and 'manly' than men who seem less and less resourceful.

The concluding sections of students' papers were devoted to summarizing the key points, expressing opinions and reactions, making evaluations and stating the limitations of the work, for example:

(12) I have chosen rock and metal music to describe their methods of conveying emotions and whole stories, because I find those genres the best at doing so, I wanted to explore their tools and explain how they work and of course interest readers with phenomena occurring in rock and metal music.

(13) In the course of my analysis, some differences between the four works studied in this paper have become apparent.

(14) In conclusion, I think that because the poetic genre is so author-dependent, packed with emotion and inseparable from the original linguistic form it is impossible to translate poetry properly.

(15) Having read the two dramas I was deeply moved by the representation of the man's desperate desire to find the meaning that would brighten his existence.

(16) Despite the fact that the dominant overtone of the two dramas is utterly pessimistic, I strongly believe that the characters' efforts to change their stagnant situation serve as a proof that human beings have a profoundly ingrained internal force which can guide them and help them in any—even the most hopeless—circumstances.

(17) I do hope that this analysis would prove illuminating and the reader will feel inclined to do a bit of his own research afterwards.

(18) There are many more parallels which I didn't manage to mention in this paper.

4.3.2 Rhetorical Functions of 1st Person Pronouns

The second research question focused on the functions that the student authorial self-mentions perform in discourse. Analysis of the data allowed the researcher to identify four major categories of discourse functions, which are listed in Table 2, together with their frequencies in the students' papers. The categories broadly correspond to those identified by Hyland (2002a), but some modifications to his typology were necessary. One difference is the absence of two rhetorical functions, i.e., explaining a procedure and expressing self-benefits. These two were excluded from the present analysis because of the nature of the assignment the participants were engaged with. The first one, explaining a procedure, is connected with a step by step presentation of the aspects of methodology adopted for a study, and the second, expressing self-benefits, pertains to statements of personal gains obtained through the research process.

The findings indicate that students' use of self-mention by means of both I and its related determiners is preferred for the role of the writer as navigator through the text. In this role the writer performs relatively safe and low-stake discourse functions, like stating the purpose of the text (which, incidentally, was previously consulted with and agreed on by the supervisor), presenting his or her intentions, providing a structure for or signposting the text through meta-discourse, like

Table 2 Rhetorical functions of self-references in student papers

Function	1st person sing. pronouns	1st person pl. pronouns
Stating the purpose of writing	31	1
Making a claim (stating a position/expressing an opinion)	29	68
Providing a structure for the text	20	14
Elaborating an argument (justifying, illustrating claims)	0	144
Totals	80	241

previewing the upcoming content or reviewing what has been said in earlier sections. The majority of I uses is connected with the role of writer-as-discourse-organizer (74.6 %); that is, the role in which no claims are imposed on the reader, e.g.,:

(19) In my work I will mostly focus on the cultural representation of one of the phenomena whose origin is attributed to the 1914–1918 period—shell-shock.

(20) In this paper I will demonstrate how Hardy uses nature to bring out Tess's traits, express her emotions, and reinforce the theme of her unwarranted suffering.

(21) In order to determine in what way Kerouac's vision of Buddhism is flawed, I need to establish sources of his inspiration.

(22) Firstly, however, I must define what is meant by the term "modern fantasy" in this paper.

(23) Now I would like to move on to demonstrate how various sceneries contribute to the presentation of the heroine in changing physical and mental situations.

(24) I shall comment on these one by one.

(25) In this excerpt, Kerouac establishes the main source of inspiration as Mahayana Buddhism, but he also belittles the impact of Zen on his writing, of which I will give some examples later on.

For more demanding and face-threatening functions, like making and justifying a claim, elaborating on arguments, providing illustrations and examples, and formulating a conclusion, with a few notable exceptions, the plural form is preferred. For example, a considerable proportion of these occurrences (32.6 %) consist in general statements, containing facts and truisms about the world, discipline-specific common knowledge (e.g., definitions of specialist terms) as well as source citations, character descriptions and plot summaries, all relatively low-risk actions. This is also the case with final sections of papers where conclusions are drawn—another role in which writers expose themselves to potential judgement by the reader. The grammatical choice in all these situations implies defocused agency and dilutes the authority of the writer. The following examples illustrate this tendency in pronoun use:

(26) While discussing the asymmetry, we can clearly notice that women are here in a worse situation.

(27) Taking into consideration both Mr. Elliot and Lady Russell's figures and their influence upon the lives of people that surrounded them, we can easily reach the conclusion that they were exceptional characters.

(28) Here we can draw a direct parallel to the life of soldiers in the trenches of Western Europe.

(29) When we look at the lower branches of commanding officers, the ones who actually sat in the trenches alongside their troops, we can see an even starker contrast with Beowulf.

(30) Still, if we take a closer look at some of their characteristics, e.g. association with the elements or spheres of life, we will see the resemblance they bear to the particular gods of Asgard.

To finish this section, it should be noted that all of the rhetorical functions identified in student texts were also realized without direct authorial reference, by means of alternative strategies, like passivisation or nominalisation. Their closer examination is, however, beyond the scope of this paper.

4.3.3 Verbs Used with 1st Person Pronouns

The next research question concerned the types of verbs that co-occur with first person pronouns in student papers. Since the writer's agency is most strongly emphasised by means of first person pronoun in the subject position, only combinations of verbs and pronouns in this position were analysed. Table 3 presents the distribution of first person pronouns with different verb categories in the analysed corpus.

The use of 1st person pronouns with verbs denoting cognitive acts like think, believe, assume, consider, suppose, etc. constituted approximately one third of all self-references (both singular and plural). These pronoun-verb combinations are connected with the role of writer-as-a-thinker, which entails the greatest amount of authorial power. Two manifestations of this role can be distinguished: the first one consists in critically commenting on or expressing an attitude towards claims made by other writers referred to in one's paper; the other one concerns advancing a new, original claim. Only a few instances (3.24 %) were found of first person pronouns followed by verbs explicitly and firmly making a stance on an issue under discussion or expressing interest in, or agreement or disagreement with opinions of or facts established by the cited authors. Examples 31–33 below illustrate this use of the pronoun.

(31) Faulkner and Steinbeck were ones of the first writers who employed such characters as the main ones in their major works but they did it in two totally different ways, and as much as I do not want to derogate Steinbeck's work, I believe that Faulkner is for some reasons more of a literary advocate of mentally challenged people than Steinbeck.

(32) I dare say it seems presumptuous to claim the capability of translating someone's feelings—and those are inseparable from the author when it comes to the majority of literary works.

(33) Taking all what has been said up to this point into consideration, I think there needs to be a discussion on what can be truly translated and what is the outcome of translation.

Table 3 Verbs used with 1st person pronouns in student writing

Verb types	1st person sing. pronouns	1st person plural pronouns
Cognition/evaluation/expositive verbs	35.5 %	41.7 %
Cognition/evaluation/expositive verbs hedged by modals	55.2 % (mostly *will* and *would like to*)	35.8 % (mostly *can*)
Other	9.3 %	22.5 %

No cases were found of the writers' contributing their own unique content in the way mature writers do. This seems to confirm what other studies have also demonstrated, that inexperienced L2 writers of academic prose refrain from making overt judgments for fear of being exposed to critical judgment coming from more knowledgeable members of the discourse community, i.e., their tutors and supervisors. Taking on roles which entail distance to one's own text is a way of coping with such intimidating audiences (Kirsch, 1993).

The high incidence of modal verbs used as hedges in company of expositive verbs (e.g., *observe*, *notice*, *see*) which follow the first person pronoun, especially in its plural form, indicates a high degree of caution on the writers' part and a message that the claims put forward are fallible. The modal verbs that most frequently followed first person singular included will and would like to, and were used to state the writer's intentions and purposes. The first person plural pronouns were followed by a greater variety of verbs, including can, should/ought to, may, might and could, most frequently used to elaborate on arguments and draw conclusions. Some modal verbs were also followed by verbs like attempt and try, with both singular and plural pronouns, further implying tentativeness or lack of confidence in the claims made.

4.3.4 First Person Pronouns Reference

The fourth question sought to establish the semantic connotations of the first person plural pronoun we in students' papers, or specifically, the types of identities behind the pronoun. Analysis of the corpus data reveals that the first person plural pronoun has a wider distribution in student writing, but also that a greater range of its referents can be identified. The largest number of occurrences of the first person pronoun (48.5 %) pertained to people in general and were typical of statements conveying generally accessible knowledge about the world, a particular state of affairs, as well as facts that are hard to disprove or challenge. Such references to the self were used to justify and illustrate claims in a general way by referring to universal collective experiences shared by human beings and they revealed no information about the writer's persona. This writer, representing humanity in general, is in fact a non-entity and as such projects very little or no power. The following sentences are typical manifestations of this meaning of the pronoun we:

(34) When somebody does us a favor, we should at least try to repay it.
(35) Why do we have the need of having someone or something intangible that we cannot see, even that we cannot touch?
(36) We constantly repeat the same patterns, no matter if we live in the 19th or 21st century.
(37) We all have an image of "a hero" in our heads.

The second largest semantic category (47.3 %) was comprised of the uses of we implying a smaller, specific but not identified group of fellow members of the same discourse community (e.g., the linguistics, literature/culture studies, and applied linguistics discourse communities). This use of we was evident in statements

developing arguments, justifying claims, and drawing conclusions. In the subject literature, such pronouns are referred to as vague (Kittagawa & Lehrer, 1990). Vague uses of pronouns betray an attempt on the writer's part to portray him/herself as one who belongs to or aspires to belong to a group of like-minded people who share the same specialist knowledge. By referring to disciplinary knowledge, known and accepted by insiders, the novice writers may want to communicate their intention to align themselves with established members of the group. The following examples illustrate this aspect of meaning:

(38) What we should consider, then, is the status of the AAVE as an independent variety of Standard English.
(39) The topic becomes more problematic and interesting at the same time when we regard poetry as a potentially translatable text.
(40) If we analyse his stories in the context of the state of geology back then, they attain an additional aura of probability.
(41) A schema is a permanent element of our knowledge.
(42) Still, we can attempt to apply modern theories of persuasion to situations illustrated in the 19th century novel, written under the expressive title Persuasion, in order to prove that the art of persuasion is something universal, regardless of the age and social reality.

These two semantic dimensions of first person plural pronoun were by far the most prevalent. However, two more meaning categories can be identified in the analysed corpus, although the range of their distribution was low. The first one, which accounted for 4.2 % of all first person plural occurrences, is we meaning no one in particular, as in the following sentences:

(43) In the marriage of Jane and Bingley we have the triumph of romantic love over social obstacles.
(44) In the Lord of the Rings we have Gandalf, a character so clearly based on Merlin that he seems to be almost his twin brother.
(45) Do we find the same variation in the marking of focus remnants in ellipsis?
(46) First we have Oedipus, who unknowingly kills his father, the king of Thebes.

In all such contexts the personal in question can be replaced by the structure there is/there are, or the indefinite pronoun one without a significant change in meaning. The least numerous semantic category (3.7 %) that was identified in the students' papers consisted of the plural pronoun meaning the author herself/himself. This referential use of the pronoun was typically used when no commitment was involved, as in the following examples of metadiscoursal signposts:

(47) We will investigate how these ingredients of meaning are related to each other and how they influence the syntactic expression of the remnant.
(48) Having discussed the process of the emergence of stereotypes we can proceed to the research which addresses this phenomenon.
(49) However, as we discussed several types of texts and approaches to the topic, we can clearly see that translation is a very complex process involving much skill and consideration.
(50) The novel is not dependent on systemic forces, since it exists above them—and when it comes to the understanding of the characters' behaviour we shall take into consideration their inner predispositions to, simply putting it, do good or evil.

5 Conclusions and Implications

Although the study reported above is limited in scope, of local character and not free from various context-specific limitations, certain tentative conclusions and pedagogical implications suggest themselves. Firstly, L2 writers feel reluctant to declare their authorial selves and choose to reduce the number of explicit attributions to the self in high-stakes roles. Their presence as authors is primarily exposed through rhetorical choices which carry little or no threat of criticism. Considerably less numerous are cases of writers who tend to overuse the first person pronoun. These findings confirm what was earlier established by Hyland (2002a) for Hong Kong and Vergaro (2011) for Italian writers of academic English. This might mean that L2 writers' strategies for positioning themselves in their academic texts are similar regardless of their first language backgrounds. The preference for affiliation with some collective entity through pluralisation implies lack of assertiveness and a wish to share responsibility for the claims, creates a distance to the content, dilutes the authority of the writer and sheds little light on the individuality of the writer who chooses to give up his or her own voice and hide in the company of others. This more or less deliberate choice clearly contrasts with what expert writers have been found to do. Putting forward a claim and then providing arguments in its support is where professional writers speak with their unique and undisguised voices and align themselves with their assertions, implying ownership of ideas and authority. L2 writers, as aspiring members of an academic discourse community, tend to approach academic texts as sources of authoritative information, which should be taken for granted and not challenged by a novice. The nature of the assignment genre might also have contributed to enhancing this attitude, as the students were not required to contribute and comment on their own original content, but on what experts have already discovered. However, a similar trend has been observed for writing tasks reporting a study designed and conducted by students themselves (Hyland, 2002a). It is rather unsurprising that inexperienced L2 writers feel reluctant to declare their independent authorial selves and choose to reduce the number of attributions to the self, also for fear of being made accountable for their assertions or being perceived as overly and unjustifiably self-confident. Indeed, the overuse of both singular or plural personal pronoun forms, especially side by side with common knowledge or in the company of trite and trivial observations makes student writing sound bland and pretentious. An interesting direction of further research would be exploring how the distribution of first person pronouns affects the quality and effectiveness of student texts.

Secondly, the amount of source reading, usually print or on-line professional journals, done by students for the completion of their assignment seems to have affected their writing in diverse ways with regard to authorial presence in their texts, regardless of the topic or discipline. By engaging with texts written by professionals

in order to select appropriate passages to be used as evidence to support a stance in their own texts, students were exposed to ways in which expert writers project their personas, thus learning about them implicitly. It can be expected the students will attempt to emulate these models or follow suit unwittingly; there are those, however, who consistently and deliberately avoid any explicit references to themselves despite the evidence of authorial self-mentions in the consulted sources. On the other hand, assuming that students of and by themselves pay attention to such textual "nuances" as the writer's persona is probably setting one's expectations too high. More likely, student writers are preoccupied with comprehension and interpretation of complex content expressed in a specialized jargon, struggling to summarise, paraphrase and reference this content satisfactorily. Their limited language proficiency and scant experience of academic discourses make it a daunting task in itself, in the face of which the preconceived notion of academic writing as being "objective" and impersonal is a convenient principle to rely on.

Thirdly, the results seem to indicate that identity as conveyed through explicit markers like first person pronouns is a highly complex and fluid notion. The impact of the writer's authority depends on the persona behind the pronoun and the function of a given statement. Certainly, it is not simply a matter of using or avoiding these grammatical forms in academic prose but rather of being sensitive to the connotations and subtle messages attached to them. To make well-informed decisions and gain better control over their writing, L2 learners need to be aware of rhetorical preferences in specific situations. Therefore, rather than having them rely on the prescriptivism of general purpose academic writing manuals addressed to broadly defined student populations, they need to be engaged in surveying their own texts as well as publications in their special fields and specific genres, analysing how often, at which points in the text and to what extent they themselves as authors on the one hand, and disciplinary experts as writers, on the other, choose to make their presence felt by the reader. In other words, at the core of any recommendations should be the necessity to "(…) be sensitive to the struggles of novice writers seeking to reconcile the discursive identities of their home and disciplinary cultures" (Hyland, 2002a, p. 1111).

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Creating Academic Text: The Use of Lexical Syntagms by L2 Undergraduate Students of English

Piotr Steinbrich

Abstract The following chapter seeks to explore Polish undergraduate students' ability to attend to the task of constructing academic text. Choosing lexical syntagms as a point of departure, five types of word combination typical of the academic genre were selected to gauge students' performance and compare it with that of expert native-speaker writers. Two small corpora were compiled in order to delve into similarities and differences in the use of academic lexical syntagms. We hypothesize that differences exist in the distribution and implementation of those combinations. The chapter begins with a brief outline of different approaches to phraseology in order to put the study in the broader context of idiomaticity. We then propose a typology of academic syntagms. The analytical core of the chapter utilizes both qualitative and quantitative methods in order to arrive at conclusive results.

1 Introduction

English has become the standard language in the international research community. As Hamp-Lyons (2011, p. 92) aptly notes, English is "the leading language for the dissemination of academic knowledge." In their analysis of academic databases, Narvaez-Berthelemot and Russell (2001) claim that English plays a central role in the dissemination of results in virtually all sciences. Studies on citation indices for academic journals provide evidence that shows the dominance of English in academia and the decreasing role of other languages, such as French, German and Japanese. Graddol (1997) describes a tendency to replace journals published in languages other than English by ones published in English. For example, *Zeitschrift für Tierpsychologie* was renamed *Ethology* since more than 90 % of the contributions are in English.

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The linguistic dominance of English in the academic domain necessitates development of academic register awareness and sensitization to what constitutes academic text at the structural, lexical, pragmatic and discourse levels. Focus on these features is a key issue in developing fluency in academic writing and addressing tasks that require control of the academic genre. Lack of register awareness may become a serious obstacle in pursuing academic tasks, both for tertiary students and prospective academics.

Academic register is highly idiosyncratic. Biber (2006, p. 1) concedes that the tasks that both expert and novice writers need to complete are accomplished through language. For non-expert writers this suggests constant exposure to the linguistic features that characterize the academic genre. Biber, Johansson, Leech, Conrad, and Finegan (1999) provide a detailed, corpus-based account of the range of grammatical features that define the academic genre. Hinkel (2002) observes that passive constructions occur in academic prose to a much greater extent than in other registers. Likewise, alongside the use of the passive voice, Swales (1990) also observes a high concentration of the simple present tense in academic prose. On the lexical level, studies have concentrated both on the distribution of single words and multi-word combinations. West's (1953) University Word List was the first systematic account of the vocabulary used in the academic context. Coxhead's (2000) Academic Word List, the most influential list to date, is based on an analysis of a 3.5 million-word corpus of academic texts. The AWL consists of 570 word families grouped into sublists according to their frequency counts. Studies on lexical patterning show the pervasiveness of formulaic language in the academic genre. Academic syntagms have been investigated in the fields of discourse analysis and rhetoric as markers that contribute to the rhetorical organization of text (Hyland, 2004, 2005; Hyland & Tse, 2004; Negretti, 2012), in the domain of genre analysis (Biber, 2006; Biber & Barbieri, 2006) and register variation (Swales, 1990).

The following chapter investigates the role of lexical syntagms in constructing academic text by non-expert writers. It begins with a brief historical overview of different approaches to formulaicity: lexical composition, semantic and structural. It then proceeds with a typology of academic syntagms. The analytical core of the chapter seeks to address the question of whether non-expert writers resort to the same repertoire of expressions as expert writers do. Our working hypothesis is that differences exist both in the their distribution and use. The chapter ends with concluding remarks and prospective pedagogic implications.

2 Approaches to Formulaicity—A Historical Overview

Although the importance of formulaic language was signalled by Jespersen (1924, p. 18) nearly a century ago, it was only in the late 1950s that formulaicity began to be perceived as a phenomenon worthy of study. Since the 1960s three main approaches to the study of formulaicity have been utilized. These are the lexical composition approach, the semantic approach and the structural approach. The

lexical composition approach is based on the assumption that words receive their meaning from the words they co-occur with. Among those who perceived lexical syntagms as a phenomenon independent of grammar was Firth (1957). He claimed that collocation is a mode of meaning, alongside orthography, phonology and grammar. Halliday (1966) and Sinclair (1966) took Firth's theory of meaning one step further and stressed the importance of collocation in an integrated lexical theory. Sinclair saw grammar and lexis as two interpenetrating ways of looking at language form (Sinclair, 1966, p. 411). Halliday (1966, p. 148) argued that lexical theory is complementary to, but not part of, grammatical theory. One of the major issues raised by the followers of the lexical composition approach was the insufficiency of grammar to account for the patterns a word enters into and the claim that grammar alone cannot describe what the lexical item is.

In parallel to the lexical composition approach, linguists working in the domain of the semantic approach attempted to investigate syntagms on the basis of a semantic framework, also separate from grammar. Lyons (1966, pp. 289–297), in proposing the abandonment of Firth's model, claimed that the definition of meaning as a complex of contextual relations is puzzling and lacks the objective principles by which lexical sets can be defined. He also denied the possibility of establishing a separate collocational level. Instead, he proposed the notion of lexical fields founded on "the relations of sense holding between pairs of syntagmatically connected lexemes" (Lyons, 1977, p. 261). Along similar lines, Cruse (1986, p. 279) claimed co-occurrence restrictions were established arbitrarily, which led him to believe that collocational restrictions should not be the scope of semantic analysis and that paradigmatic relations are "a richer vein to mine" (Cruse, 1986, p. 86).

The structural approach claims the lexical syntagm is influenced by structure since word combinations occur in patterns. The approach, therefore, recommends that the study of lexis should incorporate grammar. Mitchell (1971, p. 48) claimed that lexis derives its meaning from the lexical context, but also from the generalized grammatical patterns in which it appears. A study of lexical expressions in structural patterns was also undertaken by Aisenstadt (1979), who claimed that combinations of two or more words follow certain structural patterns and are restricted in their commutability by grammar, semantics and usage. Pawley and Syder (1983) introduced the notion of lexicalized sentence stems and suggested that native-like selection and fluency can be examined on the basis of the choice of language stretches which are idiomatic. Renouf and Sinclair (1991) extended the theory of collocations and idiomatic expressions to syntactic patterns and concluded that "co-occurrences in language most commonly occur among grammatical words" (Renouf & Sinclair, 1991, p. 128).

In the following study the structural approach to academic lexical syntagms is preferred, mainly due to the linguistic flexibility it offers. Although most of the expressions typical of the academic written genre are lexical in nature, the inclusion of grammatical information—either as lexicogrammatical patterns that those expressions enter into or as a broader textual context in which they occur—allows

for a more comprehensive analysis of their use by both expert and non-expert writers. Also, as will be demonstrated in the next section, the typology of academic expressions adopted in the study is based on semantic, but also syntactic and pragmatic criteria.

3 The Typology of Academic Syntagms

3.1 Formulaicity in Language

The typology used in this study draws heavily on the models of phraseology advocated by researchers working within the Russian tradition of lexicography and lexicology. The Russian model has been characterized as "probably the most pervasive influence at work in current phraseological studies" (Cowie, 1998, p. 2). It sees word combinations as a continuum: categories have graded membership and fuzzy boundaries.

In the pioneering work on word combinations undertaken by Vinogradov (1947, 1977), three main categories of word groups are identified and the criterion of substitutability is selected as focal in determining the degree of rigidity in word combinations. These include free phrases, semi-fixed combinations and set expressions. Free phrases are transparent and non-restricted; they also permit the substitution of each part of the combination. Semi-fixed combinations are those containing a delexical verb. Set expressions are a varied category which is further subdivided into phraseological combinations, phraseological unities and phraseological fusions. Phraseological combinations are the least rigid category and include phrases in which one element is used in its specialized sense and the other in the literal one. Phraseological unities are fixed and semantically opaque. The third group, phraseological fusions, includes the most rigid phrases, with the least substitution. Howarth (1996, p. 23) argues that Vinogradov's work on delineating phraseological categories has made two significant contributions:

> Firstly, the term "phraseological" indicates a property that expressions have to varying degrees, and, secondly, the continuum model has great descriptive value and perhaps psychological validity in representing the degrees of stability with which expressions are stored in the mental lexicon.

Amosova (1963) extends the model of phraseology proposed by Vinogradov in that she applies a stricter criterion for determining phraseological combinations. In her taxonomy, Vinogradov's combinations are further subdivided into phraseoloids and phrasemes. The former permit the substitution of the literal part of the combination. The latter function as single semantic constituents with no substitution possible. Modern lexicology, however, utilizes a more relaxed approach drawing on Vinogradov's rather than Amosova's model (see, for example, Cowie, 1992; Howarth, 1998; Mel'čuk, 1998).

Zgusta (1971) divides lexical syntagms into free combinations and set combinations. Free combinations are phrases whose meaning is "absolutely derivable from the meaning of the single combined words" (Zgusta, 1971, p. 140), whereas set combinations correspond to those expressions that are characterized by "a lexical meaning as a whole" (Zgusta, 1971, p. 143). These are further subdivided on the basis of their syntactic properties into multi-word lexical units, set/idiomatic expressions and set groups. Multi-word lexical units and set/idiomatic expressions function as grammatical classes, whereas set groups exhibit pragmatic functions and include proverbs, sayings, formulae, cliches, catchphrases and slogans.

While Zgusta's categorization of word combinations gives prominence to semantic opacity, Gläser (1988) proposes a division that recognizes the syntactic and pragmatic functions of expressions as primary. Her taxonomy follows a three-part model in which the central part is occupied by nominations. These are the syntagms that function as nouns, adjectives or adverbs. The peripheral area represents expressions which function pragmatically as propositions and which are sentence-length units. The transitional area is occupied by units which are reductions from sentence-length expressions but function as nominations.

In the model advocated by Cowie (1983), the primary distinction is made between idiomatic and non-idiomatic expressions. In his taxonomy, syntagms are categorized into four groups depending on their degree of opacity and fixedness. The categories include open collocations, restricted collocations, figurative idioms and pure idioms. The first one, open collocations, encompasses expressions in which both elements are completely transparent and easily substitutable. Restricted collocations are those in which one element has idiomatic meaning. Figurative idioms are semantically opaque and non-compositional. They are fixed semantically and syntactically, although some syntactic variation is possible. Pure idioms constitute the most fixed and opaque category. Howarth describes them as "combinations that have a unitary meaning that cannot be derived from the meaning of the components" (Howarth, 1996, p. 47). Pure idioms do not permit syntactic or semantic substitution, they do not undergo syntactic variation and are semantically unmotivated.

Howarth (1996, 1998) extends the models proposed by Vinogradov, Amosova and Cowie and proposes a two-part taxonomy that classifies word combinations primarily into functional expressions and composite units. Functional expressions are sentence-length units, such as formulae, slogans, cliches, proverbs and sayings. Composite units are combinations that are grammatical constituents of sentences and include noun phrases, verb phrases, adjective phrases, prepositional phrases and adverbials. Both functional expressions and composite units are subdivided into non-idiomatic and idiomatic expressions.

Moon (1998), in her text-based study of fixed expressions and idioms (FEIs), argues that such composites can only be understood with the texts they occur in. She proposes the following categories of multi-word units: compounds, which she dismisses as the least interesting group even if they are the largest and most tangible (Moon, 1997, p. 44); phrasal verbs, which are very frequent and occur almost exclusively in English; idioms, which she describes as a complex category (Moon,

1997, p. 46) mainly because of the holistic meaning which cannot be derived from the meanings of the component parts and often idiosyncratic syntactic behaviour; fixed phrases, an umbrella term to cover the multitude of items that fall outside the previous categories; and prefabs—also referred to as lexicalized sentence stems (Pawley & Syder, 1983), ready-made units (Cowie, 1992) and lexical phrases (Nattinger & DeCarrico, 1992)—phraseological chunks which are often incomplete syntactic units tied to discoursal situations (Moon, 1997, p. 47).

In the light of the insights into the importance of formulaic language in constructing text, let us proceed to establish a typology of academic syntagms which will serve as a springboard for the analysis presented in Sect. 5.

3.2   Types of Syntagms in Academic Prose

3.2.1   Prefabs

Prefabs are units which consist of two or more words and form structuring devices. They are phraseological chunks which typically conform to syntactic rules. They vary in degree of fixedness and are institutionalized in that they are used as a kind of signal or convention. Some examples of academic prefabs are: *for the purposes of illustration*, *to conclude*, *as X concedes*, *the paper seeks to explore*, *there seems to be a broad agreement that*.

3.2.2   Fixed Phrases

Fixed phrases are the least rigid category and covers the greatest number of items. Many expressions falling within this category are strongly institutionalized and fixed. As Moon (1997, p. 47) observes, fixed phrases have specialized and non-predictable pragmatic functions. Some examples of fixed phrases include: *in the light of*, *in the context of*, *by and large*, *in terms of*, *along similar lines*, *have a (direct) bearing on*, *leave unaddressed the issue*, *the extent to which*.

3.2.3   Collocations

Collocations are probably the most extensively researched type of multi-word unit. The category includes both lexical and grammatical units (Benson, Benson, & Ilson, 1986). According to Cowie (1983) they form a cline from free combinations with both elements having a literal meaning, restricted collocations in which one element has a literal and one a figurative meaning, and idiomatic collocations subdivided into figurative and pure idioms. Another division of collocations is based on syntactic criteria, for example adjective + noun, adverb + adjective or transitive verb + noun phrase direct object. The most comprehensive list of

syntactic patterns is found in Cowie (1989). In our study, however, we refrain from this rather complex labelling, mainly for the sake of clarity. Some examples of academic collocations include: considerable advance, conclusive evidence, necessary preliminary, explanatory value, analytic perspective, brief consideration, understanding of, advance on, insights into, derive from.

3.2.4 Collocational Complexes

As Howarth (1996, p. 66) rightly concedes, some collocations may form part of larger strings of words. This, according to him, is motivated psychologically and results from the processing of language, which is speeded up by resorting to conventional patterns and putting them together to form bigger chunks. In writing, however, and in academic writing in particular, the use of collocational complexes increases the predictability of lexical strings and contributes to a more fluent and coherent piece of text. An example of a collocational complex is "provide direct evidence for the claim that" in which the collocations "provide evidence" is enriched with the embedded collocation "direct evidence" and the grammatical collocation "evidence for." Collocational complexes illustrate the behaviour of collocations whereby one expression is not tacked on to the end of another but there is some overlap between them. This phenomenon is also referred to as collocation cascade (Gledhill, 1995) or pattern flow (Hunston, 2002; Hunston & Francis, 1999).

3.2.5 Lexical Bundles

Bundles are defined as the most frequently occurring lexical sequences and typically do not fit into traditional units of language. They are identified mainly on the criterion of frequency and are restricted to those sequences that occur over ten times per million words and that repeat in five or more texts (Biber et al., 1999, p. 990) or appear in 10 % of texts (Hyland, 2008). Biber et al. (1999, p. 995) observe that more than 95 % of the bundles that occur in academic prose are not complete syntactic units. According to Hyland (2012, p. 151), 4-word bundles "offer a wider variety of structures and functions to analyze" and consequently are most often studied by researchers. Biber et al. (1999, p. 995) identify the eight most frequent grammatical patterns of lexical bundles: preposition + NP fragment (as a result of), NP + post-modifier fragment (the nature of the), anticipatory it + VP/adjective (it is possible to), verb/adjective + to-clause fragment (are likely to be), passive verb + PP fragment (is based on the), verb + that-clause fragment (should be noted that), pronoun/NP + auxiliary + copular be (it was in the). Lexical bundles, although not included in the typologies presented in Sect. 3.1, fit into Gläser's category of reductions.

4   The Study

4.1   Aims of the Study

The study aims to determine how non-expert writers use lexical syntagms in the academic domain. In particular, it seeks to explore the similarities and differences in the distribution and implementation of five types of academic word combinations: prefabs, fixed phrases, collocations, collocational complexes and lexical bundles. The following research hypotheses will be addressed in the course of analysis:

1. The differences in the use of academic syntagms between expert and non-expert academic prose result from non-expert writers' deviating from the norm.
2. Deviation occurs at the formal, distributional and complexity levels.

4.2   Data Collection

The study is based on two small corpora of academic writing, each of approximately 350,000 words. The non-expert writer corpus was compiled using non-assessed samples of MA theses written by non-native speaker students in the fields of linguistics, applied linguistics, literary theory and cultural studies at the John Paul II Catholic University of Lublin, Poland. While compiling the corpus all the instances of non-original student work, such as quotations or fragments of literary texts, were removed.

The students' level of English was C1/C2 (perceived) according to the proficiency scales laid out in the CEFR. The MA programme lasts 2 academic years and includes an MA seminar that meets once a week (120 contact hours), during which the students discuss thesis-related issues, and specialized courses the aim of which is to enrich and deepen students' understanding of the subject matter of their choice.

The expert writer corpus was compiled using four journals in the corresponding fields of linguistics, applied linguistics, literary theory and cultural studies. The journals are *Applied Linguistics* (Oxford University Press), *Language* (Linguistic Society of America), *New Literary History* (John Hopkins University Press) and *Critical Review* (Routledge). Corpus design is shown in Table 1.

4.3   Procedure

Using qualitative and quantitative methods, the study compares five classes of word combinations in two corpora: one compiled from academic texts composed by non-expert writers and the other from academic texts from leading journals in four disciplines: applied linguistics, linguistics, literary theory and cultural studies. The

Table 1 The distribution of words across disciplines in the two corpora

Non-expert writer corpus		Expert writer corpus	
Discipline	No. of words	Journal	No. of words
Applied linguistics	92,341	Applied Linguistics	89,637
Linguistics	89,328	Language	91,262
Literary theory	79,766	New Literary History	82,553
Cultural studies	86,249	Critical Review	89,210
Total	347,684		352,662

word combinations under scrutiny involve: prefabs, fixed phrases, collocations, collocational complexes and lexical bundles. Each category will be discussed in a separate section. The methodology used in the study employs both qualitative and quantitative tools in order to address the research hypotheses. The decision to use different research instruments while attending to the five types of syntagms stems from the idiosyncrasies typical of each category of expressions. Those marked by high frequency of occurrence and are closed-class items (fixed phrases and lexical bundles) lend themselves more to quantitative analysis. Those which allow syntactic and semantic variation and belong to the open-class items (prefabs, collocations and collocational complexes) are analyzed using qualitative instruments.

5   Results and Discussion

The following section seeks to explore the differences in the use of academic syntagms in the two corpora. We begin our analysis with prefabs used in academic prose and then proceed with the other types of expressions in the same order as was used in Sect. 3.2.

5.1   Prefabs

In structuring academic prose expert writers use a variety of prefabs that distance themselves from the text. Metonymy is used as a strategy that makes it possible to achieve an impersonal stance where *paper*, *section* or *article* are used instead of the personal pronoun *I*:

1. The paper begins with a consideration of...
2. This paper offers a way of extending...
3. The paper concludes with a discussion of...
4. The remainder of this section considers...
5. The paper focuses on the relationship between...
6. The analytical core of the paper derives from work on...
7. The article will argue that...
8. This paper will adopt an analytic perspective...

The instances where the pronoun *I* is used are scarce and in most cases an impersonal stance dominates.

With non-expert writers the situation is reversed. The preferred way of structuring a piece of academic writing is by resorting to various expressions with the first person reference:

1. In the first chapter I will write about...
2. In the first chapter I am going to write...
3. I would like to focus on...
4. I will now write something more about...
5. Let me conclude by saying...
6. As I said earlier in this chapter...
7. Let me start with a theory of...
8. I will start the chapter by writing about...

Self-mentions are also used by non-expert writers for expressing opinions (*I strongly believe*, *I'm of the opinion that*) or elaborating an argument (*Let me illustrate*, *I would like to provide support for*).

The data show that student choices of prefabs which function as structuring devices deviate from the academic convention, which manifests itself in heavy reliance on personal constructions rather than the impersonal ones. From the pedagogic perspective, however, it seems relatively easy to remedy. Pre-writing tasks that involve sensitization to the expressions that mark the impersonal stance, such as transformation, substitution or re-writing are likely to draw attention to the form that conforms to the academic standard. Also, building a stock of such expressions based on reading assignments should be beneficial. A more detailed account of authorial self-representation in student writing is provided by Trepczyńska (current volume).

5.2 Fixed Phrases

Fixed phrases share some properties with the category of lexical bundles mainly because the class is the least rigid, thus allowing numerous types of expressions to enter. The major difference, however, lies in the way bundles are identified. The correct and appropriate use of fixed phrases signals, as Hyland asserts, "competent participation in a given community" (2008, p. 2). According to Cortes (2002), their main function is to give greater fluency and naturalness.

In the non-expert writer corpus, one of the most frequently used fixed phrases is *due to the fact* (*that*). Generally, student writers use fewer such expressions than expert writers and fixed phrases are mainly used as discourse structuring devices.

Table 2 The distribution of the five most frequent fixed phrases in the corpora

Non-expert writer corpus		Expert writer corpus	
Expression	Frequency	Expression	Frequency
On the other hand	57	On the other hand	73
When it comes to	36	At the same time	34
What is more	31	As a result	19
As far as X is concerned	29	Due to the fact that	9
Due to the fact that	24	–	–

As a result their frequency of occurrence is higher compared to expert writers (see Table 2) even though the first two most frequent phrases in both corpora appear to be distributed evenly (*on the other hand*, *when it comes to* vs. *on the other hand*, *at the same time*). However, in the non-expert corpus items one to three (*on the other hand*, *when it comes to*, *what is more*) are marked by high frequency of occurrence whereas in the expert corpus, frequency counts drop significantly starting from item three (*as a result*). This corroborates the findings of Chen and Baker (2010), who conclude that student writing contains a much greater number of markers. This may stem from their lack of experience and confidence but also the need to structure text using a range of linguistic devices rather than relying on cohesive ties. Quantitative analysis of the data presented in Table 2 demonstrates significant differences in the distribution of fixed phrases in the non-expert writer and expert writer corpora. The chi-square test returns the value of 34.4 which, with 4 df, yields $p < 0.0001$.

As has been stated earlier in the chapter, there is a great deal of overlap between fixed phrases and lexical bundles, which results in conceptual ambiguity. Therefore, it seems that Moon's category of *fixed phrases* needs to be refined, and consequently a new taxonomy of formulaic expressions might be developed with fixed phrases constituting a more rigid category that excludes instances of bundles. At present, the notion of fixed phrases seems to work as an umbrella term that covers all the types of expressions that do not fit into other classes of expressions.

5.3   Collocations

Collocations present the most complex category of expressions. As three dimensional constructs, they are characterized by the degree of opacity and fixedness, the syntactic patterns they enter into and the types of words—either function or lexical —that make up the combination.

Howarth (1996) observes that in the academic domain the most relevant type are restricted, or specialized, collocations. Free collocations, due to their semantic transparency, are not challenging to process. Idiomatic collocations, on the other hand, were very infrequent, accounting for approximately 1 % of all instances.

In our data only a few instances of collocational deviation resulting in complete breakdown in intelligibility were observed. If that were to happen, unpacking the meaning of the ill-formed combination would usually be possible with the aid of the broader context in which it occurred.

Instances of deviation from canonical collocations included blends, semantic approximation and delexicality.

Blends result from fusing the components of two different collocations to arrive at a deviant form. Howarth (1996, p. 150) notes that blends are found among native-speaker writers and are regarded as performance errors or pass unnoticed. Non-standard collocations used by non-native-speaker writers, on the other hand, are treated as competence errors since we cannot assume the underlying language competence.

The expert writer data show no instances of blends. In the non-expert writer corpus, on the other hand, blends occur frequently:

1) give emphasis (blending *give weight to* and *place emphasis*).
2) achieve the task (blending *achieve the goal* and *carry out/perform the task*).
3) make a conclusion (blending *make a comment* and *draw a conclusion*).

In cases where the origin of the blend is much harder or impossible to trace, the deviation from the norm is referred to as semantic approximation. These are instances of ill-formed collocations where the writer uses a semantically related concept of the standard form of one of the components of the expression:

1) *take insights.
2) *create a reaction.
3) *concrete details.

Delexicality refers to the ill-formedness of lexical collocations with a delexical verb. In general, expressions with a delexical verb occur more frequently in the expert writer corpus (23 %) than in the non-expert writer one (14 %). This can be ascribed to avoidance strategies used by the students due to uncertainty over the correct form. In student writing, however, departures from standard forms are observed:

1) *do corrections.
2) *have a comparison.
3) *take an effort.

Probably the last category would be miss-hits, where there seems to be no logical explanation for the choice of the component of the collocation; this, however, occurs marginally in the data.

Guz (2014) reports another interesting phenomenon concerning creating academic texts by undergraduate students. Focusing on the use of lexical strategies by Polish undergraduate students, she observes that novice writers often resort to lexical creativity when constructing written academic discourse. Among the strategies deployed by the students she lists the following under the heading of ineffective: rare words entering into lexical patterns with other words (*inculcate*

learning patterns), lexico-semantic doublers (*unruly misbehaviour*), paraphrase (*attain a lingo*) and adverbial intensification (*tantalizingly similar*). The data from the non-expert writer corpus, however, does not seem to support the view that student writing is peppered with such expressions. Only two instances illustrating the last category were found in the corpus: *amazing language capacities* and *great theory*. Other than that, deviating from the norm followed the three patterns presented earlier in this section.

5.4 Collocational Complexes

Collocational complexes demonstrate the level of language control and fluency of the writer. The following stretch taken from the expert writer corpus is composed of four collocations:

> provide no direct evidence for the claim that (provide evidence, direct evidence, evidence for NP, the claim + that clause)

Interestingly, the collocations are not attached to one another in a linear fashion. Instead, we observe the layering of combinations whereby the string *provide evidence* is interrupted by the word *direct*, which in turn enters into a pattern with the second element of the first collocation. The word *evidence*, already constituting two lexical collocations, forms a colligation—a grammatical collocation—by attracting the preposition *for* followed by the noun phrase. The noun phrase, realized by the noun *claim* forms yet another colligation with a *that*-clause.

Omnipresent in expert writing, collocational complexes are rare in student academic texts. If they do occur, the pattern of the combination is far more simplistic:

> This list, however, was extended by adding other strategies used in the lessons and providing a more detailed categorization of the strategies already mentioned in the questionnaire.

The collocations in this fragment are: *extended list*, *add strategies*, *in the lesson*, *provide categorization*, *detailed categorization*, *categorization of* NP.

A more detailed study of collocational complexes could shed new light on the psycholinguistic aspect of constructing text. Likewise, investigating the length and complexity of such combinations might be of paramount importance in determining writer proficiency and fluency in a given genre. Coxhead and Byrd (2007) argue that academic sequences are central as they constitute ready-made blocks that allow for pragmatically efficient communication and help structure academic text. The ability to manipulate these ready-made units may also contribute to precision and naturalness and legitimize the writer's disciplinary membership.

5.5 *Lexical Bundles*

Lexical bundles represent the most recent trend in studies in phraseology. Cortes (2002) concedes that the assimilation of appropriate bundles results in more convergent discourse. Hyland (2008) states that the "absence of such clusters might reveal the lack of fluency of a novice or newcomer to that community" (p. 2). Biber (2006, p. 174) argues that bundles are essential in constructing discourse in all university registers.

In comparing the distribution of lexical bundles by non-native speaker university students and professional native speaker writers, Cortes (2004) observed that students do not use many of the bundles found in published papers and that their choices of bundles deviate from the standard ones. Rica-Peromingo (2009) reports that non-expert academic writing diverges from expert writing in the use of linking and stance adverbials.

Analyzing a 2.1 million-word corpus of academic texts from various disciplines, Simpson-Vlach and Ellis (2010) compiled an Academic Formulas List which includes "formulaic sequences, identifiable as frequent recurrent patterns in written and spoken corpora that are significantly more common in academic discourse (…) and which occupy a range of academic genres" (p. 479).

The study by Steinbrich (2014) on the use of lexical bundles by expert and non-expert writers shows that there are significant differences in the distribution of 3-g. As for the distribution of four-word bundles, qualitative results were sufficient to demonstrate the differences between the groups. Most combinations used by expert writers were absent from the non-expert writers' list. What is more, the results of the quantitative analysis showed that students resort to 4-g much more frequently than professional native-speaker writers.

6 Conclusion

Comparing non-expert phraseological performance with that of professional native speaker writers does not by any means imply that students should attain or aspire to full competence in the target language. Nevertheless, command of the tools necessary to construct academic text necessitates an understanding of linguistic and psycholinguistic processes that take place among the students.

Taking it as a working hypothesis that lexical syntagms greatly contribute to the accomplishment of the task of writing a fully-fledged academic text, the analysis of various types of word combinations provides some useful insights into the mechanisms that govern text construction.

Having selected five categories of word combinations, prefabs, fixed phrases, collocations, collocational complexes and lexical bundles, it is possible to have a more complete picture of non-expert writers' strengths and weaknesses. It seems that in the case of prefabs, the most common departure from the canon of academic

prose is the use of the first person reference. Fixed phrases tend to be overused but the span of such expressions appears limited when compared to professional writers. As for collocations, the category of restricted collocations seems most relevant in the academic domain. The research has shown that more exposure and formal instruction is needed for the students to assimilate those combinations. Collocational complexes constitute the category which shows the degree to which a writer is fluent and proficient. Finally, lexical bundles demonstrate flow and naturalness in the academic genre.

On a pedagogic note, there are studies that provide evidence that awareness of academic discourse has a bearing on novice writers' ability to construct academic prose (Negretti & Kuteeva, 2011). Along the same lines, Negretti (2012) sees awareness-raising as pivotal for the growth of student academic skills, including their ability to compose academic text. It seems, therefore, that following the path from awareness to automatization (Faerch & Kasper, 1983) is central to developing the skills needed to become a competent participant of the academic community.

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The Use of Citations in Research Articles Written by Polish and English Native-Speaker Writers

Katarzyna Hryniuk

Abstract Recently, there has been growing interest in developing Academic Writing in English as a Foreign Language (EFL) by novice scholars who need to publish in international journals. Previous research shows that writers who come from outside Anglo-American cultural regions face many challenges when writing for publication in English because of distinct writing conventions that they follow. Therefore, the aim of this article is to present a study comparing citation conventions in research articles written by English native-speakers and Polish writers. For this purpose, a corpus of 40 research articles from the area of applied linguistics was analysed—20 articles written by English native-speakers and 20 by Polish writers —to determine whether or not major citation patterns are used to the same degree and in the same way. Previous research also shows that texts written according to Slavic conventions are usually less clearly structured, with content ascribed to specific article sections often spilling over into other ones. Hence, the locations of the citations in specific parts of the IMRD structure (i.e., Introduction-Method-Results-Discussion) will be compared in the two sub-corpora focusing also on literature reviews, which have not been given much attention in previous studies, although they occupy large parts of text space in introductions. The occurrence of citations was analysed in the present study using a corpus linguistics concordance program called WordSmith Tools 6.0 (Scott, 2012). The study results have implications for writing in EFL instruction both for novice scholars and graduate students writing their research papers and theses.

1 Introduction

Texts are never created in isolation (Bazerman, 2004), academic texts in particular. Referring readers to other texts, mainly through citations, is inevitable in academic writing, which is regarded as a social process of knowledge construction. This

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characteristic feature is known as *intertextuality*, a term which originates from literary studies and was coined by Kristeva (1980). It refers to the ways in which a text is built off other, previously written texts. Academic texts, written both by university students and scholars, are negotiated with advisors, editors, reviewers and readers. In the humanities and social sciences in particular, there always exists more than one interpretation of data. Therefore, it is necessary to advocate a claim through reference, making it more authoritative. Writers have to situate their research and their line of reasoning in a larger context or framework, and explicitly signal intertextual connections to a reader. For naming such relations in a text, Hyland (1999, 2004), after Fairclough (1992), uses the term *manifest intertextuality*, which is understood as the explicit signalling of a reference to other texts by using the name of the author and the year of publication of the referenced work, or quotation marks for verbatim repetition of the author's words, and by adding the page number where the quoted text was published.

Accordingly, in this article the sociocultural view on academic literacy is adopted, which is in line with Hyland's (2004) claim that:

> Explicit reference to prior literature is a substantial indication of a text's dependence on contextual knowledge and thus a vital piece in the collaborative construction of new knowledge between writers and readers. The embedding of arguments in networks of references not only suggests an appropriate disciplinary orientation, but reminds us that statements are invariably a response to previous statements and are themselves available for further statements by others (p. 21).

Thus, overt references are significant and inevitable features of research articles (Hyland, 1999). To be sure, citation conventions are prescribed in publication manuals but—although they may convey such an impression—the guidelines are not just detailed rules to be followed by authors, since how an author chooses to cite carries different rhetorical meanings. Writers use them to show the context of their own research, how it fits into the larger framework, to compare their results with the outcomes of other studies, and to orient the reader to their purpose, knowledge and motivations. There are multiple reasons to make reference to previous research: ethical, persuasive, identity-establishing, and other (Swales, 1990). Whatever the reasons for citing are, White (2004) claims that citation is regarded as a very complex communicative process. That is why the practice of citing should be given more attention in research. The social practices of constructing intertextual ties through citations—identification, classification, interpretation of motives underlying citing and others—are now very important research tasks. The results of explorations carried out so far, which will be reviewed in the next section of this article, show that novice writers, non-native speakers in particular, both students and researchers, need some assistance in making decisions on what and how to cite. Although the difficulties they face have to some extent been documented, there is a need for more extensive research in this area in order to provide academic writing instructors, advisors and researchers themselves with more knowledge and guidance.

2   Previous Research

The rhetorical weight of citations has been recognized in the literature on the subject. It has been researched not only in applied linguistics but also from the point of view of the sociology of science and bibliometrics. The sociological perspective, in which referencing is viewed as a sociocultural process of knowledge construction, is broadly presented in literature by such scholars as Bazerman (1988, 2004) and Fairclough (1992). Bibliometrics, also known as scientometrics and informetrics (White, 2004), as a subfield of information science, is concerned with citation analysis as well. It explores how and why citations are used to assign value to academic journals, measured by the Impact Factor and other citation indices. A study of motives for citing other authors was carried out in this subfield, for example, by Feng and Yishan (2009), who explored citations in texts from the sciences and humanities. The most comprehensive overview of research on citation practices in bibliometrics, however, was reported by Bornmann and Daniel (2008). On the basis of approximately 30 studies' findings, the authors questioned the use of citations as a reliable measure of quality of publications.

Although the outcome of research and development of thought in the two abovementioned areas certainly complement the view on citation practices, the topic of citations has been most extensively researched in applied linguistics. Therefore, the most prominent studies and findings in this field will be summarized below.

2.1   *Applied Linguistics Research on Citing Conventions*

There has been an increase in the number of studies on citation conventions published in the last two decades. The subject was likely most extensively researched by Hyland (1999, 2004). He focused on disciplinary variations in the use of citations, on how citations are incorporated into research articles, and on the use of reporting verbs for citing. His corpus consisted of 80 articles from eight disciplines: the so-called *hard* sciences as well as humanities (including applied linguistics) and social sciences. The main results are that, firstly, at least twice as many citations are used in articles in humanities and social sciences than in hard sciences. An exception is molecular biology articles, where even more citations were found than in applied linguistics. Secondly, explicit quotations are much more common in humanities and social sciences than in hard sciences—in applied linguistics and marketing in particular. Pecorari (2006), who investigated disciplinary variations in postgraduate second-language writing, came up with similar results.

Hyland (1999, 2004) also focused in his research on the use of *integral* and *non-integral* citations, a distinction first made by Swales (1990). The former are those in which the name of the researcher is an element of the sentence, and the latter are instances where the name of the researcher is outside the sentence—whether in

parenthesis or referenced by a superscript number, or by some other device. These types of citations carry different rhetorical meanings. In Hyland's research, in humanities and social sciences more integral citations were found, in which the cited author was in subject position in a sentence (in marketing in particular). In hard sciences, on the contrary, non-integral structures in which the role of the cited author is often downplayed, were more often used. Hyland (2004) also investigated which verbs are most frequently used for reporting research. He discovered that in humanities and social sciences more discourse activity reporting verbs are used— so-called *cognition verbs* in particular (e.g., *see, think, believe*, *conclude*)—than research-type verbs, preferred in hard sciences. Also, more verbs expressing positive and negative stances and more explicitly critical verbs are used in humanities and social sciences (on categorized verbs used for citing, see also Thompson & Yiyun, 1991). Hyland (2004) concludes that variation in citation conventions among disciplines depends on the way that knowledge can be effectively negotiated in them. The choice of citation types definitely depends on the topics that the texts describe, on the communities that they address, and on their cognitive and cultural values. The citation practices are based on the epistemological and social convictions of specific disciplines. Other studies carried out by Hyland (2001, 2003) which are worth mentioning here focused on using self-citations.

Another problem associated with referencing was explored by Pecorari (2006, 2008) and by Pecorari and Shaw (2012). The researchers investigated citing practices in the works of postgraduate non-native English students in a few disciplines (both hard sciences as well as humanities and social sciences). They analysed the students' works and conducted interviews with both students and their advisors. The research focused on not only visible but also more *occluded* features of their texts. The researchers found that novice writers often fail to acknowledge secondary sources, which may lead to inappropriate practices for which the term *transgressive intertextuality* is used to avoid negative connotations and differentiate it from intentionally deceptive acts, known as plagiarizing (Chadrasoma, Thompson, Alastair, & Pennycook, 2004). As the research shows, novice writers need more guidance to understand the border between illegitimate and legitimate types of intertextuality. The problem is that the views on this, expressed by supervisors themselves, are inconsistent (Pecorari & Shaw, 2012). Other studies investigating citing practices which may lead to judging novice writers' work as plagiarism were carried out by McCulloch (2012). The researcher made the important point that novice writers often cite sources in order to present *facts*, while the citing by more experienced writers performs a rhetorical function and plays a role in social knowledge construction.

Numerous other studies in which a discourse-based interview approach was adopted, explored the motives for particular ways of citing as well as their rhetorical functions. Harwood (2008) and Harwood and Petrić (2012), for example, focused on academic writers in sociology, computer science and business management, to conclude that citing is a private and subjective process. The researchers also point to the fact that writing is a situated, social act and the students' citing performance is a response to the understanding of local conditions, such as the knowledge of

evaluation criteria. A study in which undergraduate students of education participated and from which similar conclusions were drawn was carried out also by Schembri (2009).

Large-scale research on the choice of sources for citing in articles published in English-medium national and international journals was conducted by Lillis, Hewings, Vladimirou and Curry (2010). The researchers, who used ethnographic and corpus-based methods in their explorations, point to the huge impact of English as a global language on academic writers' citing practices. After analysing 240 articles in the area of psychology and conducting interviews with authors originating from four countries, they concluded that references to English language sources are preferred in international English-medium journals. Therefore, there is a tension between the need to disseminate research findings from local contexts and the pressure, especially exerted by international journal gate-keepers, to cite English-medium works in the articles. The geolinguistics of citing linked with the problem of knowledge building and its evaluation in a global context, explored by Lillis et al. (2010), is currently gaining much interest.

A number of studies which are especially relevant to the present investigations, described in the next sections of this article, focused on the distinction between *integral* and *non-integral* types of citations and their location, as well as on the most common verbs used in citing (e.g., Cano, 1989; Charles, 2006). The distinction made by Swales (1990) and applied extensively in research carried out by Hyland (1999, 2004), was also used in, for example, the study carried out by Pickard (1995), who analysed integral citations in published texts in the area of applied linguistics. The researcher found out that applied linguists have a strong preference for using the name of the cited author in the subject position in a sentence. She also distinguished the most commonly used citing verbs in this field, which, she claims, are: *call*, *suggest*, *argue*, *report*, and *point out* (Pickard, 1995, 94; as cited in Clugston, 2008, 13).

Clugston's (2008) study results firmly support Hyland's (1999) findings. She explored a corpus of 93 articles from the area of health science which were published in 11 journals and found that in articles on biological subjects (physiology and radiology) more non-integral citations are used (especially in introductory sections of articles) than in behavioural sciences. However, exceptions were also found, pointing to the fact that there are no strict rules. In this corpus, many denotative reporting verbs were used for citing, but evaluative ones very rarely appeared, which suggests a preference for objectivity in writing. Direct quotations were also sparse, which is in line with Hyland's (1999) research.

Okamura (2008) compared citation practices in 30 articles in sciences (biology, chemistry and physics), written in English as a mother tongue (L1) and in English as a foreign language (L2) context (i.e., Japanese professional writers writing in English). The author found that in the minority of integral types of citations used, the ones in which the name of the author cited is in the subject position prevailed in texts written by L2 writers, whereas L1 writers used more variety of structures. The researcher suggests that novice writers, non-native speakers in particular, must bear

in mind that different citation forms fulfil certain rhetorical purposes and in order to strengthen their argument they should learn various ways of citing.

The use of integral and non-integral citations as well as citing verbs in the literature review sections of 20 PhD theses was also explored by Soler-Montreal and Gil-Salom (2011). The works were in the area of computing science, written in English and in Spanish. The results showed that while in the English corpus there was a high ratio of integral citations with active verb-controlling forms, which make authors prominent, Spanish writers used more non-integral citations and passive forms, to downplay the role of the author. In English theses also more direct quotations were used. It was also shown that English writers used more variety of reporting verbs than Spanish writers. The most commonly used verbs in both Spanish and English corpora belonged to textual and research process categories. However, while Spanish writers used only one negative reporting verb, in the English corpus a number of such examples were found. English writers employ verbs which imply a personal stance and sometimes highlight weaknesses in the works of their colleagues in order to justify their contribution, but Spanish writers avoid this type of confrontation. The authors of the study claim that this behaviour reflects cultural differences between the two nationalities, meaning that English writers are more assertive in this way.

The study carried out by Badura (2012) in which the literature review chapters of theses in three scientific disciplines were analysed, is not the most relevant to present investigations because the texts analysed were written in Romanian as a mother tongue. However, the author points to the possibly important conclusion that the rhetoric of citation is culture-specific. Two other studies by Shooshtari and Jalilifar (2010) and by Rowley-Jolivet and Carter-Thomas (2014), suggest similar conclusions. In the former study discussion sections of 80 research articles in applied linguistics were analysed—half of them published in local and the other half in international journals. The study revealed mainly that international writers use more non-integral citations and more variety in citing structures, bearing in mind the audience. The excessive use of integral citations by local writers is attributed to the local writers' culture. The authors of the study suggest that the Persian culture to which the local writers belong values people more than their achievements, contrary to Western culture. That is why integral citations prevail— the writer has a prominent position in the sentence. The authors point to the need to develop a better understanding of the cultural and linguistic role of citations in writing among local writers in particular.

Finally, as mentioned above, Rowley-Jolivet and Carter-Thomas (2014) also suggest that in cross-linguistic research, culture plays a role. The researchers in their study compared citation practices in articles written by experienced writers in the fields of engineering, science and computational linguistics: in 20 articles written by French writers in English, 20 by English writers in their native language and 20 written by French writers in French. The authors conclude that using citations effectively requires much rhetorical and linguistic expertise and that citation conventions are never culture-free.

3   The Study

The present study is a corpus-based textual analysis of 40 research articles from the area of applied linguistics written in English by native-speakers and Polish writers. Its aim is to compare the use of citation patterns in the texts and the location of citations in specific sections of the IMRD structure. Thus, the study addresses the following research questions:

1. What are the differences in the use of citation types (integral, non-integral, verb-controlling, naming and other) between the texts written by Polish and Anglo-American writers?
2. Are there any significant differences between the locations of citations in different sections of the IMRD structure in the two sub-corpora?

The study has implications for developing academic writing in English for international publication by novice scholars, as well as for writing research papers and theses by postgraduate, graduate and even undergraduate students.

3.1   Corpus and Methodology

For the purpose of the present analyses, the same corpus was used as in the author's previous study (Hryniuk, 2015). It consisted of 20 research articles written by English native-speakers, and 20 by Polish writers, specialists in applied linguistics. The texts were published in English in the years 2009–2013, in representative, peer-reviewed, highly reputable applied linguistics journals. The articles written by English native-speakers were selected from two anglophone international journals published in the US, and those written by Polish native-speakers, from two English-medium journals published in Poland. It is important to note that articles from the Anglo-American sub-corpus were considerably longer—on average by 2800 words (the Anglo-American sub-corpus consisted of 191,423 words, and the Polish one of 135,358). However, in analyses of such small specialized corpora, full texts should be used (Bowker & Pearson, 2002; Flowerdew, 2004). In the guidelines for authors of two Anglo-American journals and one Polish, there was a direct reference to the American Psychological Association (APA, 2010) style manual, where both citation forms and the IMRD structure of empirical research article are prescribed. Authors of the second Polish journal were not guided in this way but they also followed the rules prescribed in this manual.

The analysis focused on the use of explicit references to other texts, and their locations in sections of the IMRD structure, which was applied in the articles. Additionally, the conclusion sections were considered, mainly because they were present in 95 % of articles in the Polish sub-corpus. It is also significant that in 40 % of the Polish articles, the discussion sections were merged with the preceding ones or they were absent. In 40 % of the articles from the Anglo-American

sub-corpus, on the other hand, the conclusion sections were merged with the discussions or they were absent (Hryniuk, 2015).

In the present analyses the division made by Swales (1990) into *integral* and *non-integral* citations was used. The former is a citation in which the name of the author referred to constitutes an element of the sentence in which it occurs. For example:

   1. Smith (2012) carried out research on social interactions …

A non-integral citation is the one in which the name of the author referred to is placed in parenthesis, indicated by a superscript number or by some other device. For example:

   2. There have been many studies carried out on … (Jones, 2009; Smith, 2012).

Because of the distinct textual surface features, these types of citations are easily recognizable. It is evident that from the point of view of pragmatics, they perform different rhetorical functions in the texts. In integral citations the authors are foregrounded, i.e., the reader's attention is directed to the source authors, especially if their names are in the subject position in a sentence, while in the non-integral citations the prominence is given to the information. They de-emphasize the source authors and foreground their contributions. Okamura claims (2008) that while acknowledging previous work, they also draw the reader's attention to the writer's own findings. In order to avoid confusion, in the present study, the word *writer* refers to a person citing the works and the word *author* to the cited person (Hyland, 1999).

Swales' (1990) distinction of citations was further refined by Thompson and Tribble (2001). Two of the sub-categories of integral citations which were added by the researchers were also used in the present study because they carry clearly distinct rhetorical meanings. Accordingly, Thompson and Tribble (2001) divided integral citations into *verb-controlling*, when the citation acts as the agent controlling the verb (they are of the same type as in the first example above), *naming*, and other. In a naming citation, the name of the author is a part of a noun phrase. The most frequently used pattern for naming citations includes prepositions such as *in*, *by*, *of*, etc. For example:

   3. …described in Smith and Jones (2010), …definition of Smith and Jones (1998), …
      work by Smith and Jones (2005)

The *verb-controlling* citation emphasizes the author, while the *naming* form of a citation implies reification; they signify the text, the method, the work rather than the author. It is often used in passive grammatical structures of sentences. This distinction was also applied in the present study.

In order to achieve greater precision, the WordSmith 6.0 concordance tool (Scott, 2012) was used in the present analyses. First, concordance lines with the citations were generated and then the context of their use was explored.

3.2 Results

Table 1 shows the numbers of integral and non-integral citations in the Polish sub-corpus (PC) and the Anglo-American one (AC) in each section of the IMRD(C) structure. The two types of citations are also presented as percentages, showing the proportion of the total number of citations in each article section.

It was predicted by the author of this article that the largest number of citations would be in literature reviews (884 in Polish and 499 in the Anglo-American sub-corpus), the sections which in most cases are not separated by headings from the introductions. In the corpora analysed in the study, they were signalled only in three articles written by Polish and in seven articles by Anglo-American writers. The next section where the number of citations was the largest was the discussion but only in the Anglo-American sub-corpus (166). In the Polish sub-corpus, this number was quite small (47), less than a third as many as in the Anglo-American sub-corpus.

As the numbers in Table 1 show, the introductory sections of both sub-corpora included more non-integral citations than integral ones but the Polish used almost 2.5 times more of these citations than Anglo-American writers (658 and 268 respectively). The number of both integral and non-integral citations in the method sections in both sub-corpora was very similar. In the results sections, Anglo-American writers used over four times more integral citations than Polish writers (34 and 8 respectively). The latter used slightly more non-integral citations (19) than Anglo-American writers (12). The discussion sections of the Anglo-American corpus also included over four times more integral citations than the same sections in the Polish corpus (71 and 16 respectively), and over three times more non-integral citations (95 and 31 respectively). Generally, in the discussion sections of the Anglo-American sub-corpus 3.5 times more citations were found than in the Polish sub-corpus. In the conclusion sections of the Anglo-American sub-corpus, only three citations were found, which shows that referring to other sources in the last section is very rare among Anglo-American writers, whereas in the Polish sub-corpus there were almost 12 times more citations, i.e., 6 integral and 29 non-integral ones. Nevertheless, this is on average only 1.75 citations per article, so the number is not very large.

Table 1 The numbers and the percentages of integral and non-integral citations in the Polish (PC) and the Anglo-American (AC) sub-corpora

	Introduction		Method		Results		Discussion		Conclusion	
	PC	AC	PC	AC	PC	AC	PC	AC	PC	AC
Integr.	226	231	57	48	8	34	16	71	6	2
	26 %	46 %	44 %	38 %	30 %	74 %	34 %	43 %	17 %	67 %
Non-integr.	658	268	72	78	19	12	31	95	29	1
	74 %	54 %	56 %	62 %	70 %	26 %	66 %	57 %	83 %	33 %
Total	884	499	129	126	27	46	47	166	35	3
	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %

Table 2 The numbers of integral and non-integral citations in the corpora and their density

	The numbers and density of citations per 1000 words	
	PC	AC
Integral	313 (2.3)	386 (2)
Non-integral	809 (6)	454 (2.4)
Total	1122	840

Table 2 shows the overall number of integral and non-integral citations in the corpora and their density (i.e., the number of citations per 1000 words), which gives more insight into their use, since in the Anglo-American sub-corpus the articles were on average 2800 words longer.

Firstly, the fact that the overall number of citations in articles written by Polish writers was larger than in the Anglo-American sub-corpus (1122 and 840, respectively) was quite surprising for the author of the study, because these articles were shorter. As Table 2 shows, in the Polish sub-corpus fewer integral citations were used (313), but their density was very similar in both sub-corpora (2.3 and 2, respectively), and this number is very close to the density number of non-integral citations in the Anglo-American sub-corpus (2.4). A large difference can be observed between the density of non-integral and integral citations in the Polish sub-corpus. Polish writers used over 2.5 more non-integral citations per 1000 words than integral ones in the articles. A similar situation is observed when one compares the non-integral citation density in the Polish sub-corpus with the density of both types of citations in the Anglo-American sub-corpus.

To gain a better insight into the rhetorical functions of the citations used in the corpora, the study further explored the use of integral citations, divided into the two categories described earlier in this article, namely verb-controlling and naming citations.

Table 3 shows that most of the integral citations, both verb-controlling and naming, were in the introductory sections in both sub-corpora. In these sections verb-controlling citations prevailed, unlike in all other sections. In the method, results, discussion and conclusion sections, although the number of integral citations was generally lower than in the introduction sections, naming and other

Table 3 The numbers and the percentages of two types of integral citations (verb-controlling and naming) in the Polish (PC) and the Anglo-American (AC) sub-corpora

	Introduction		Method		Results		Discussion		Conclusion	
	PC	AC	PC	AC	PC	AC	PC	AC	PC	AC
Verb-contr.	152	135	8	5	3	6	6	26	6	0
	67 %	58 %	14 %	10 %	37 %	18 %	37 %	37 %	100 %	0 %
Name. and other	74	96	49	43	5	28	10	45	0	2
	33 %	42 %	86 %	90 %	63 %	82 %	63 %	63 %	0 %	100 %
Total	226	231	57	48	8	34	16	71	6	2
	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %	100 %

Table 4 The numbers and percentages of integral citations (verb-controlling and naming) in both sub-corpora

	The numbers and percentages of integral citations	
	Polish sub-corpus	Anglo-American sub-corpus
Verb-controlling	175 (56 %)	172 (45 %)
Naming and other	138 (44 %)	214 (55 %)
Total	313 (100 %)	386 (100 %)

citations were in the majority, i.e., the name of the author cited was not in the subject position. An exception was the conclusion sections in the Polish sub-corpus where all six citations were integral and verb-controlling.

As Table 4 shows, generally more integral citations were found in the Anglo-American sub-corpora than in the Polish one. In the Polish sub-corpus, the number and the percentage of verb-controlling citations was larger than that of naming and other citations (56 and 44 %), and in the Anglo-American sub-corpus the situation was the opposite but the proportions very similar. There was a larger number and percentage of naming and other citations (55 %) than verb-controlling ones (45 %).

4 Discussion

The study results show that Polish writers generally cite other sources more often than Anglo-American ones. This is quite surprising for the author of the study, bearing in mind the fact that one of the main concerns expressed by scholars in the central-east European countries has always been limited access to recently published books and journals. Although the study did not investigate the question of what sources were referred to in the analysed articles—whether they are local or international, mostly up-to-date or older publications—it indicates that the situation in Poland has improved in this respect. It seems that the widespread use of the Internet has contributed to easier access to sources in this country. From the study results it can be deduced that even with much more limited funding than in the Western countries, Polish writers seem to read a lot in order to contextualize their research well. This area, however, is worth further exploration.

The results of the present study also indicate that in all sections of the articles in the Polish sub-corpus, non-integral citations prevailed—in the introductory section in particular. This type of citation foregrounds the information rather than the author cited. It enables the writer to maintain an impersonal stance and, Okamura (2008) claims, to focus the reader's attention on the writer's own findings. Another finding of the study is that among integral citations, verb-controlling ones prevail, i.e., the author cited is most often in the subject position in a sentence. Both results in fact are similar to what was found in Hyland's (1999, 2004) research on disciplinary variations in citation conventions. His findings showed that in applied

linguistics non-integral citations are in the majority, and among integral citations verb-controlling ones prevail. These types of citations are used more often than in hard sciences, and the ratios of integral to non-integral citations as well as verb-controlling to naming in the present study are very close to the ratios in Hyland's research. In the case of the Anglo-American corpus, however, the proportion of the number of integral to non-integral citations is more balanced in the present study. The analysis shows that the Anglo-American writers use more integral citations, but also more naming and other ones than verb-controlling citations like Polish writers, although the difference between the use of verb-controlling and naming citations was not very large. It seems that English native-speaker writers, by definition more linguistically skilled, use a greater variety of structures and employ a wider range of citation practices.

The biggest difference between the Polish and the Anglo-American corpus observed in the study was the location of citations in the article sections. It was clearly shown that in comparison to Polish writers, Anglo-American writers use many more citations—both integral and non-integral—in the discussion sections. The latter, however, use more citations in the conclusion sections. First of all, these results may derive from the fact that, as was mentioned earlier in this article, in 40 % of the Polish sub-corpus the discussion section was missing or was joined with the results section, and in 40 % of the Anglo-American sub-corpus, the conclusion section was combined with the discussion section or was absent (Hryniuk, 2015). The results most likely are also the consequence of different expectations of Polish and Anglo-American writers concerning the content of the discussion section. While for Polish writers it is often perceived as the section devoted mainly to an explanation and interpretation of the results, in Anglo-American writing this section is expected to contextualize the study, show if it contradicts or supports other research results, and integrate it with the field by referring also to other sources. Although much variation, depending on the discipline and publication requirements, is permitted, deliberations in this section are expected to go beyond the results (Swales & Feak, 2004). It seems that for Polish writers it is the conclusion section which usually presents such a broader view on the issues discussed in the article.

Finally, it must be acknowledged that the present study results cannot be generalized to all academic writing by Polish and Anglo-American scholars, as the number of articles analysed was not very large. However, the insights gained in this investigation may shed a light on the issue of the complexity of citation practices in academic writing for publication and be a starting point for future explorations.

5   Conclusion

Citation is inevitable in academic writing. Though often seen mainly as a means to avoid plagiarism, novice writers must realize that it also performs many rhetorical functions, especially in writing for publication seen as a social process of

knowledge construction. Citation conventions vary depending on many contextual aspects of writing, such as discipline, genre, the audience, the type of publication and many other factors, which makes the practices quite complex. Novice writers, non-native speakers in particular, very often face many challenges in their attempts to comply with the conventions and negotiate their claims effectively through reference to other sources. By varying the citation types they can establish space for their research, share knowledge and meet the standards established by target discourse community (Shooshtari & Jalilifar, 2010). For this reason, in my view, citation strategies should be given more attention both in research and in the academic writing classroom.

In university writing courses, teachers usually only put the emphasis on summarizing, paraphrasing, using quotations and a set of citation types. On the basis of this type of instruction, citation seems to be a mechanical process aiming at avoiding plagiarism. Similarly, in style manuals like those produced by the APA and MLA only the surface linguistic features of referencing are presented, and no guidance is given on how and when to cite in order to negotiate the writer's claim well. Novice writers need more help in developing their academic writing skills, in which intertextuality plays a major role. It seems that results from corpus-based studies like the one described in this article may provide both novice and more experienced writers, as well as students, with a fuller understanding of the linguistic and cultural functions of referencing. They must realize that learning and applying a greater variety of citation practices is definitely a step towards becoming more competent and successful writers.

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Creating Texts Together—Collaborative Writing in Polish Secondary School

Krzysztof Kotuła

Abstract This article discusses the question of collaborative writing (CW) in the Web 2.0 era. The present chapter is the result of a study conducted by the author among 27 Polish secondary school students learning French. The participants were randomly assigned to nine groups comprising three learners each. Their task consisted in writing a detective story over a five-week period. The study had three major goals. Primarily, it was to find out how L2 students engage in the collaborative writing process using web-based word processing tools. The second aim of the study was to determine the nature of group participation in web-based collaborative writing. Finally, another important goal of the study was to indicate what factors can influence students' perception of collaborative writing tasks. The results of the study show that participants' general opinion on the project was definitely positive. They also seem to suggest that CW projects can appeal to a wide variety of learners independently of their self-perceived language proficiency level, reluctance to engage in collaborative projects or self-perceived IT competence.

1 Introduction

Many researchers in language learning and teaching consider collaborative pair and group work fundamental to FL instruction (Bygate, Skehan, & Swain, 2001; Ellis, 2003; García Mayo, 2007; Van den Branden, Bygate, & Norris, 2009). As emphasized by Naomi Storch, the use of small groups or pairs rests on a strong theoretical and pedagogical basis as it accords with a social constructivist view of learning. In this perspective, learners should be encouraged to participate in activities which foster interaction and co-construction of knowledge (Storch, 2005).

Collaborative writing constitutes one of the most interesting forms of group work in the language classroom. It is premised on the cooperation between two or

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more writers who work together to create a joint product. In order to produce a text, team or group members must negotiate and communicate with each other and coordinate their common objective (Lowry, Curtis, & Lowry, 2004). A number of researchers stress the positive aspects of collaborative writing, arguing that it encourages learners to reflect on the ways of achieving established goals and it intrinsically promotes mutual support in the process of putting ideas into the target language (Swain, 2006, 2010).

Compared to research on the benefits of collaborative work for spoken discourse, research investigating the benefits of collaborative writing was, until quite recently, scant. Merely a few years ago, Storch (2005, p. 153) observed that "although pair and group work are commonly used in language classrooms, very few studies have investigated the nature of such collaboration when students produce a jointly written text". However, recently, there has been a noticeable increase in interest in CW in second language classrooms. One of the basic reasons for this is the emergence of a whole range of Web 2.0 tools valued for their great collaborative potential, significantly enhancing work practices with this type of task. Determining the course of collaborative project execution involving the use of ICT as well as finding out students' opinions on this kind of activity constitute the major aims of the present study.

2   Review of Literature

2.1   Selected Studies of the Effectiveness of CW in Language Learning

The hitherto accomplished research into the advantages of CW in language learning cannot be exhaustively discussed in this paper on account of the limited space. In this section, only a few exemplary studies in the field will be referred to. They concentrate mainly on two elementary aspects: students' perception of collaborative projects and the influence this type of task has on the development of writing skills. Their authors did not necessarily use IT tools in their experimental designs; however, since the universal mechanisms of collaborative text creation are the main objects of their reflection, the conclusions are interesting in the present context.

In their article published in 2002, Kuiken and Vedder investigated the role of group interaction in L2 writing. They tested the hypothesis that "text quality in L2 is positively affected by collaborative dialogue: when learners are given the opportunity to reconstruct together a text, which has been read to them by the teacher, their joint product will be better than an individual reconstruction" (Kuiken & Vedder, 2002, p. 169). The authors found that there was a strong relationship between interaction among writers and text quality in L2. They argued that these findings show that collaborative language production can prompt learners to deepen

their awareness of linguistic rules and trigger cognitive processes that might generate new linguistic knowledge and consolidate existing knowledge.

Storch (2005) investigated the process and product of CW, and students' views on it. The study compared texts produced by pairs with those produced by individual learners. Also, the nature of the writing processes evident in the pair talk was investigated. As stressed by Storch (2005), "a comparison of the products (completed texts) of pairs and individuals showed that pairs produced shorter texts, but texts that had greater grammatical accuracy and linguistic complexity, and were more succinct" (p. 168). The examination of participants' opinions on CW indicated that most of the students were positive about the experience, although a few of them did express some reservations.

In a similar study, Storch and Wigglesworth (2007) compared the writings of individuals with pairs working on the same writing task. They also studied how pairs interacted as they were completing the activity. The data were collected from postgraduate students with an advanced level of English proficiency at a university in Australia. 24 participants out of 72 performed two writing tasks individually and 48 completed the same tasks in pairs. The results obtained were similar to the results of the Storch's (2005) previous study: the investigators found that pairs tended to produce texts with greater accuracy than individual writers.

The last research project we will discuss in this paper was conducted by Shehadeh (2011). This author carried out a 16-week study investigating the effectiveness of collaborative writing. Subjects were divided into two groups. In the first one, writing tasks were done by students individually; in the second one, they were performed in pairs. This time, the aim of the researcher did not consist in comparing texts written by the control group to those produced by the members of the experimental group, but in finding out to what extent participation in collaborative activities enhanced the development of individual writing skills. The study showed that CW had an overall significant effect on the quality of students' L2 writing; however, this effect varied from one writing skill area to another. It was significant for content, organization and vocabulary, but not for grammar or mechanics.

As can be stated on the basis of the above overview, there seems to be no doubt that CW can have a positive influence on the development of both general competences (such as ability to cooperate within a team) as well as group and individual writing skills. One must however avoid the risk of overgeneralization, and interpret the results of the above research prudently since the individual research projects differed in various ways, such as duration (from one-session (Storch, 2005) to long-term projects (16 weeks in Shehadeh, 2011)), task format (text reconstruction tasks in Kuiken and Vedder (2002); tasks based on a graphic prompts in Storch, 2005) and the way participants were assigned to groups (in Storch, 2005, students were free to choose whether they wanted to work in pairs or individually; in Shehadeh, 2011, they were randomly assigned to groups). Such factors as age, background, length of foreign language instruction, language proficiency,

participants' preferences relative to a particular writing task format, flexibility (or lack of it) in subject choice, interaction patterns and the balance of power inside the group as well as a number of other incidental or intervening factors can also measurably affect the way tasks will be carried out by students, and influence their perception of CW in general.

2.2 Collaborative Writing in the Web 2.0 Era

The emergence of new IT tools expanded interest in CW. Their basic advantage consists in enabling people to work together from a distance. They eliminates the necessity of real life meetings while producing the text. The members of a particular group can access, create and modify documents at their convenience from their households or any other place of their choice.

A whole range of tools, for example wikis, can potentially be used in CW projects. As emphasised by Warschauer (2010), wikis are "an especially powerful tool for collaborative writing and collaborative knowledge development" (p. 5). Language learning researchers have examined students' perceptions of using wikis in collaborative work (Coniam & Kit, 2008; Elola & Oskoz, 2010; Judd, Kennedy, & Cropper, 2010) and their effect on students' writing development (Arnold, Ducate, & Kost, 2009; Bradley, Lindström, & Rysted, 2010). Most of the studies confirmed that wiki collaboration had positive effects on students' language learning experience.

Blogs have also received attention from language practitioners (Ducate & Lomnicka, 2008; Murray & Hourigan, 2008). They are a dynamic and interactive network where authors not only create and update content but also share and exchange ideas. Although usually created individually, they can also be used in CW contexts. Collective blogs involve an entire class or small groups of students who collaboratively construct L2 knowledge.

The third group of tools that can be implemented in the present context consists of online word processors, which strongly resemble standard word processors, such as *Microsoft Word*. There is no need to install the software on one's own computer, files can be saved on a network server where they are available for co-workers and reviewers, the user interface imitates those known from commercial word processors, the risk of distributing files with malware is eliminated and files can be converted to popular formats—to name a few of these tools' distinctive features. Their fundamental advantage is that, unlike standard word processors, they allow users to work synchronously, enabling them to edit text and exchange comments in real time (Kessler, Bikowski, & Boggs, 2012). An online word processor, *Google Docs*, was chosen for the purpose of the present project.

2.3 Possible Issues in the Course of CW Project Realisation

New technologies, though they certainly have their possibilities, are no guarantee of success, either for teacher or student. Research shows that course effectiveness is determined by the pedagogy involved in using media, and not the medium itself (Rovai & Barnum, 2003; Weasenforth, Meloni, & Biesenbach-Lucas, 2005). There are numerous reasons why collaborative writing projects do not always succeed: for example, inexperience, interpersonal conflict (Chisholm, 1990) and concerns about inaccurate peer edits (Nelson & Murphy, 1993). Additionally, students may ultimately view writing as a private act (Murray, 1992) and they can be reluctant to do tasks in which the final result of their work depends on a greater number of people.

Inability to understand the idea of collaboration can also be a problem. Some researchers have observed that in some online written tasks, students favour cooperative learning (that is, individual students independently doing delegated tasks) over collaborative learning (Alyousef & Picard, 2011). This can mean participants do not benefit from the assistance of their partners and tend to consider themselves responsible only for their particular part of the task, which can reduce the quality of the text.

The teacher should take these circumstances into consideration and be aware of diverse variables that can influence the final outcome of such tasks. It is the teacher who is responsible for planning and monitoring the task in order get the best results. Learners should feel supported throughout their work, as the use of new and unfamiliar technologies can be a serious obstacle.

3 Research Project

3.1 Rationale for the Present Project and Research Questions

Although interest in CW has increased in recent years, few collaborative writing projects involving more than two writers are actually undertaken, particularly ones relative to learners of languages other than English. As this paper's author is a high school French teacher, the present research project is naturally focused on this particular language. The overall aim of the study consisted in finding out whether CW activities, habitually done in pairs, can be equally interesting and stimulating when undertaken in bigger groups. Since the students' task was to create a rather long and developed story (see details below), groups of three members seemed optimum for the purpose of this task. In this particular aspect our study is similar to the one conducted by Kessler et al. (2012), which also focused on using *Google Docs* in collaborative writing contexts in large groups. Their study, however, analysed the texts produced by the learners, which lies beyond the scope of the present work.

Given the project's context, using Web 2.0 tools was reasonable. The high school students participating in the research lived far apart, hampering attendance at regular meetings. A long-term writing assignment requires the continuous involvement of all the participants. This is made possible by digital tools: throughout the whole time dedicated to the task, the participants had unlimited access to the document under construction, which they could both edit and comment on at their convenience. The study's principal research questions are:

1. How do L2 students engage in the collaborative writing process using web-based word processing tools?
2. What is the nature of group participation in web-based collaborative writing?
3. What factors can influence students' perception of collaborative writing tasks?

This paper is not dedicated to a detailed grammatical, lexical or stylistic analysis of the texts produced by learners; due to its complexity, this aspect would have to be developed in a separate study.

3.2   Research Participants

27 Polish students learning French, attending two different classes of high school, aged 17–18, were the subjects of the research. All the students have been taught by the author of the present study. The participants' overall proficiency level was comparable (B1). They were randomly assigned to 9 groups of 3 learners each.

3.3   Research Procedure

The task consisted in writing a detective story over a five-week period. The teacher provided the participants with two instructions: the main element of the plot should be a murder and the text should exceed two sheets of A4 paper. It was the learners' task to invent the story and edit a the whole text.

As mentioned, for the purpose of the project, *Google Docs* was selected. This program allows simultaneous editing, which is not available in traditional desktop word processing programs, wikis, or other tools where users must wait for others to complete their turns before they have access to one another's text. In *Google Docs*, users see their collaborators' text appear as it is being written (Kessler et al., 2012). Moreover, project management is easier for teachers and learners, as they are notified by e-mail every time a user modifies the document. Text modification tracking makes it possible to judge the contribution of particular participants and to monitor the changes they made to the text.

Although the *Google Docs* interface is rather easy to grasp, an additional video tutorial was made to explain in detail all the important features of this tool. It was

uploaded to the author's personal *YouTube* account, where it was accessible to all the students. When the participants wanted to communicate with one another (e.g., to ask questions, share their doubts, plan the story etc.), they were asked to do it in French using the platform commentary functionality.

The students were not guided in their activities. They were to spontaneously organise their work and mutually reach a consensus on the best way to do the task they were given. No teacher's feedback about the correctness of the text, for example, was provided during the writing process; however, the participants were told they could seeking teachers' help with any technical problems. When the participants had completed their work the project was evaluated.

On completion of the task, all the students were asked to fill in identical 17-item questionnaires composed of 5-point Likert-scale statements with response anchors ranging from "strongly disagree" (1) to "strongly agree" (5) concerning their personal opinions on the project, its potential benefits, and the quality of both their own and their team-mates' contribution (6 items) as well as their more general views on the purposefulness of collaborative writing, computer-mediated communication and the level of their language abilities (11 items). Apart from this, the students were asked to provide two basic pieces of information about themselves, namely sex and the length of time they had been receiving French instruction. The last two questions of the survey were open-ended and required students to specify the positive and negative aspects of working with *Google Docs* program. The data were collected with the Google forms tool. All the calculations were done with *STATISTICA* version 8 for Windows.

3.4   Results

3.4.1   Students' Perceptions of the Project

The students' opinions on the collaborative writing were favourable (see Table 1 for details). They thought the best thing about collaborative text production was the possibility of mastering new vocabulary (item 3, $\bar{x} = 4.4$). They were less sure the project improved their grammatical knowledge (item 2, $\bar{x} = 3.8$) and made them more confident in using French (item 4, $\bar{x} = 3.7$). Nevertheless, their general opinion on the project was definitely positive (item 1, $\bar{x} = 4.6$). Writing foreign language texts in groups was perceived as a valuable experience even if the participants were not convinced of the project's impact on all the language competences.

All the students were extremely satisfied with the results of their group work (item 5, $\bar{x} = 5$) and with their personal contributions (item 6, $\bar{x} = 4.8$). The last piece of information is particularly interesting in the light of what we can state about their real level of engagement in the project (see Sect. 3.3.5. for details), which varied considerably from one participant to another. However, one must keep in mind that it was only a subjective perception of the personal contribution to the project.

Table 1 Means, standard deviations, and minimum and maximum values for variables 1–6

Statements	Mean	SD	Min	Max	Interpretation
1. Participating in this project was a rewarding experience	4.6	0.55	4	5	Definitely agree
2. Thanks to this project, I improved my grammatical knowledge	3.8	0.89	2	4	Agree
3. This project helped me to learn new vocabulary	4.4	0.44	4	5	Definitely agree
4. Thanks to this project, I became more confident using French	3.7	0.54	3	4	Agree
5. I'm satisfied with the results of work achieved by my group	5	0	5	5	Definitely agree
6. I'm satisfied with my personal contribution to the project	4.8	0.44	4	5	Definitely agree

After establishing the internal reliability of items 1–4 measuring participants' opinions relative to the potential benefits of the collaborative writing project by calculating the Cronbach's alpha coefficient, the four elements were combined. This is justified by the fact that the alpha coefficient was 0.79, which can be considered satisfactory. As a result, numerical values attributed to the items were summed and the value obtained was ascribed to a new variable which we shall call "Participants' opinions on the benefits of CW" and which will be used for the purpose of further analysis.

3.4.2 Factor Analysis of Variables

As far as the remaining items in the questionnaire are concerned, factor analysis was used in order to explore their underlying dimensions. When principal components analysis with varimax rotation was used, a three-factor solution emerged that accounted for 84.53 % of the variance. Results are listed in Table 2.

The first factor (corresponding to items 1–4) can be interpreted as students' self-confidence in their use of French. In this case, all the components are linked with the self-perceived level of language proficiency and the inner belief in one's potential to attain a high degree of FL competence. The Cronbach's α value for those items was high (0.91), which proves that they refer to a single unidimensional construct. The second factor (corresponding to items 5–8) can be interpreted as participants' unwillingness to engage in collaborative projects. The features defining this dimension stem from two inextricably linked components, i.e., students' dislike of working in groups (items 5 and 7) and their attitudes to co-creating texts during a long-term project involving the use of IT tools (items 6 and 8). As in the previous case, the Cronbach's α value for those items was very high (0.96). The third factor, finally, can be interpreted as students' beliefs about their IT competence and the purposefulness of technology-enhanced language learning. Also, in this case the Cronbach's α value for those items was satisfactory (0.78).

Table 2 Factor analysis results

Statements	Loadings		
1. I consider myself a proficient French user	**0.93**	0.05	0.24
2. I try to practise French outside the classroom	**0.98**	0.09	0.27
3. I feel confident speaking French in front of other people	**0.79**	−0.19	0.13
4. I believe that I will ultimately learn French very well	**0.98**	−0.06	0.19
5. I would rather have created the text on my own	−0.20	**0.85**	−0.03
6. Such projects are too time-consuming	0.11	**0.77**	−0.31
7. I think that during the project I worked more than my team-mates	−0.10	**0.79**	0.36
8. Working on the text during regular meetings instead of virtual meetings would have been preferable	0.24	**0.96**	0.05
9. I consider myself a proficient computer user	0.03	−0.04	**0.98**
10. Teaching foreign languages with technology can be more efficient than traditional teaching	−0.31	0.04	**0.77**
11. I like taking part in projects involving the use of new technologies	0.43	0.06	**0.61**

Note Values above 0.6 are highlighted in bold

3.4.3 Correlational Analysis of Variables

In the next step, the association between the variable "Participants' opinions on the benefits of CW" and other variables, namely learners' sex, how long they had been receiving French instruction, and the three factors discussed in Sect. 3.3.2. corresponding to students' opinions on collaborative projects and their self-perception of their language abilities, were examined using Spearman's rho correlations. The results are shown in Table 3.

As can be seen, all the correlations failed to achieve statistical significance. The only case in which the value of p approaches 0.05 is a positive correlation with variable "Factor 1". This indicates that producing text collaboratively was better appreciated by people with a better opinion of their language skills. This correlation is relatively obvious as one can expect that learners who think they are proficient FL users will be more open to the realisation of similar tasks than those who doubt they can make valuable contribution to such projects. However, this correlation is weak,

Table 3 Summary of correlations with the variable "Participants' opinions on the benefits of CW"

Variable	Valid	Spearman	Sig. (2-tailed)
Length of French instruction	27	−0.16	0.41
Sex	27	0.17	0.38
Factor 1	27	0.35	0.06
Factor 2	27	0.05	0.79
Factor 3	27	0.10	0.61

which indicates that there is no pronounced interrelationship between the two variables.

As far as the remaining cases are concerned, the correlation coefficients are very low. This finding is very important, as it shows that the factors that were taken into account in the study do not have a significant impact on the participants' opinions on CW. This is not immediately obvious. For instance, in the case of the second factor, corresponding to participants' unwillingness to engage in collaborative projects, one might expect a strong negative correlation with participants' opinions on the benefits of CW, since, theoretically, learners reluctant to participate in group work should rate this type of challenge lower than other students. However, this relationship is virtually non-existent, which means that individual attitudes towards the idea of co-authoring texts did not influence the evaluation of this particular project.

This is an interesting finding. It suggests that CW projects can be equally appealing to people with different language learning experiences, various degree of IT competence, and diverse attitudes to collaboration and to projects involving the use of new technologies. Therefore, such projects can be advocated in a wide variety of contexts.

3.4.4 Participants' Opinions on Positive and Negative Aspects of Working with *Google Docs*

In the last questionnaire entry, the learners were asked to express their opinion on any obstacles they might have encountered during the project as well as the positive aspects of working with *Google Docs*. The most frequently enumerated negative point was that in order to access and edit the document, one needs to have internet access (7 times). Although all the participants confirmed they had a stable internet connection (a fundamental requirement for taking part in the project), in practice, unexpected obstacles cropped up. The learners produced the texts in extracurricular time, for example during their weekend trips. Unstable connections and slow connections were a problem for some participants, stemming from the underdevelopment of Poland's IT infrastructure.

Further critical remarks on the work with *Google Docs* concerned the technical aspects of its use. Two students noted that one needs to spend a lot of time to learn how to use the application. A video tutorial explaining the basics of the program was made (see Sect. 3.2) but the apparently limited IT competence of some of the project participants was still a significant obstacle. Two other students complained about the inconvenience of adding diacritic marks. *Google Docs* is unable to create keyboard shortcuts typical of standard word processors.

Finally, one participant was openly critical about online word processors, stating that they are detrimental to human relations. This may have arisen from the impossibility of meeting his team-mates in person, which he may have perceived negatively.

As for advantages, the participants expressed opinions more or less identical to those enumerated in Sects. 2.2 and 3.1. They appreciated the fact that many people can simultaneously access the document and that it is possible to work on the text at any time of the day. They equally valued the comment function, which makes it possible to suggest improvements their team-mates have to carry out to the document. For three participants being able to access the text with various devices was another positive. They claimed that being able to make minor changes and add comments about their colleagues' contributions was easier using portable devices such as smartphones, especially immediately after being notified that the document has been modified.

3.4.5 Interaction Patterns Inside the Groups

With the revision history function in *Google Docs* it is possible to track all the modifications made to the document. This makes analysis of the individual contributions relatively simple.

The first step consisted in verifying the percentage of text produced by each member. Although almost all the participants were satisfied with their personal contribution to the project (see item 6 in Table 1), significant disproportions between the amount of text created by particular students were revealed. Subsequently, three distinctive patterns have been successfully found. In teams 4 and 6, team-mates produced more or less one third of the text each. In teams 1, 3, 7 and 8, team-mate 1 created 27–29 %, team-mate 2 approximately one-third and team-mate 3 up to 41 % of the text. In teams 2, 5 and 9, the domination of one of the participants was noticeable, as the contribution of this member accounted for more or less half of the whole text while the two remaining participants created approximately one quarter each.

The patterns of work organisation were also divergent. In groups 2, 4, 5, 7, 8 and 9, the learners developed the story plan beforehand. In groups 1, 3 and 6, the participants had a different strategy for the task: once the story was initiated by one of them, the team-mates added further paragraphs. This spontaneous way of writing the story was an interesting experience as frequently, for long periods of time, the learners did not know how the plot would develop or how the story would end. It can be exemplified in the following extract from the text produced by group 1 in which one of the learners replied to the last sentence from her friend's entry: "Alors elle a décidé de demander de l'aide a son meilleur ami Jean-Baptiste" (So she decided to ask her best friend Jean-Baptiste for help). She introduced her part in the following way: "NIESPODZIEWAJKA!!!! Quand Cécile s'est rendue chez Jean-Baptiste, elle y a rencontré Charlotte. Ils avaient l'air d'être très heureux et il s'est avéré qu'ils étaient en train de faire les préparatifs au mariage" (Surprise !!! When Cecile paid a visit to Jean-Baptiste, she met Charlotte there. They both seemed very happy and it turned out that they were preparing their wedding). The Polish colloquial word "niespodziewajka" (surprise) serves to introduce an unexpected plot twist.

The work patterns of teams 2, 5 and 9, where a dominating group member imposed his or her conception of the plot on team-mates, were in marked contrast to the above described ways of work organization. This strategy is distinctly manifested in the following comment made by the leader of team 5, who stated: "C'est notre scenario. Je voudrais que vous commenciez a écrire l'histoire en bas. Ne changez pas le scenario." (This is our scenario. I would like you to start writing the story below. Don't change the scenario). As can be seen, every team achieved their goal by different means and the strategies they applied differ significantly from one another.

4 Discussion

The learners were positive about producing text in groups. Their opinions about CW were positive, even if their view of the project's impact on the development of particular language competences was not conclusive (see Sect. 3.3.1). This proves that CW can be attractive also to those who learn languages other than English and work in larger groups.

As far as the impact of students' personal beliefs in the potential benefits of CW is concerned, none of the relationships taken into account were statistically significant (see Sect. 3.3.3). This may suggest that CW projects can appeal to a wide variety of learners, regardless of their self-perceived language proficiency level, reluctance to engage in collaborative projects or self-perceived IT competence.

One of the project's concepts was that the learners weren't told how they should build relationships within the group. They themselves had to reach a consensus on how best to do the task. Furthermore, because the participants were randomly assigned to groups, they often had to set up relationships with people they had never cooperated with before. This resulted in the crystallisation of different models, varying from democratic to authoritarian (see Sect. 3.3.5). In spite of this, the project can be considered successful since all the groups completed the task on time. What is more, all the texts produced exceeded the required length, and they presented inventive, rich narratives distinguishable by a high level of complexity (however, as has been emphasized, a deep analysis of the texts produced lies beyond the scope of the present article). The participants made an effort to plan and produce the texts fully exploiting the potential of the tool they were provided with. As a result, the overall assessment of the project is entirely positive.

5 Conclusions

It is irrefutable that the popularity of CW in recent years is interconnected with the development of new technologies that have significantly changed the way language learners can do this type of project. Such features as ease of communication

between team-mates and limitless freedom of access to collaboratively produced text mean that tools like *Google Docs* are tailor-made for CW. Collaborative practices enabling students to support one another and benefit from the knowledge gained by their peers should become an integral component of the language learning environment.

The above discussion concentrated mainly on the learner and on factors that might influence learners' opinions about CW projects. However, to conclude, the teacher's role is worth mentioning. It goes without saying that from the teacher's perspective this type of project is particularly demanding since in order to initiate the project and supervise the learner produced texts, the teacher has to master a whole range of various competences. This can discourage some teachers from engaging in such tasks. Nevertheless, new technologies are an unavoidable vehicle for revolution. As Ray Clifford correctly noted in the 1980s, "technology will not replace teachers but teachers who use technology will probably replace teachers who do not" (Clifford, 1987, as cited in Kushnir, Manzhula, & Valko, 2014, p. 219).

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Gap-Filling in English as L2 as a Form of Text Construction Using Contextual Cues

Teresa Maria Włosowicz

Abstract The purpose of the study is to analyse the processes involved in gap-filling in English as L2, which may be considered to be a form of text construction. It is based, on the one hand, on models of the multilingual lexicon which assume that both syntactic and semantic properties are stored within lexical entries (Herwig, 2001), or more precisely, lemmas (e.g., Jiang, 2000), and, on the other hand, on models of reading and writing which involve both bottom-up and top-down processing (de Bot, Paribakht, & Wesche, 1997; Schoonen, Snellings, Stevenson, & Van Gelderen, 2009). The study, carried out with advanced (MA-level) students of English philology, consisted of two parts, a multiple-choice test, and a "free production" gap-filling task, in which the students could provide any words that, in their view, met the semantic, syntactic and collocational requirements of the text. The tasks were followed by a short retrospective questionnaire, aiming to investigate the reasons for the students' lexical choices. As the results show, gap-filling is a very complex process, where excessive reliance on bottom-up information, disregarding the context, often results in errors, although errors can also result from paying insufficient attention to such local cues as syntactic and collocational restrictions. They also prove the importance of maintaining a coherent mental model (Johnson-Laird, 1983) of the text during comprehension, and of acquiring accurate lemma information from L2 input, instead of copying lemma information from L1 lexical entries (cf. Jiang, 2000).

1 Introduction

The purpose of the study was to investigate gap-filling by MA-level students of English philology. In general, filling gaps in texts is regarded here as a form of text construction. Although the participants do not write the whole texts themselves, they recreate texts which have been made incomplete and the words they supply

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contribute to the final form of the texts. However, not only can they complete the text, but they may also distort it or even provide words which do not make sense in the context at all.

Arguably, supplying the right words can be more difficult than writing a text "from scratch" because the context may require, for example, a particular collocation or a verb taking a particular preposition, which participants writing their own texts might not use at all. The research questions, which are presented in detail in Sect. 5.2 below, focused, in general, on the students' lexical choices made while filling the gaps in texts and their correctness, but also on differences between the correctness of items supplied in semantically, syntactically and collocationally restricted contexts.

Apart from the mechanisms of lexical retrieval in L2 text comprehension and production, the study takes into account, on the one hand, the organization of the bilingual mental lexicon and, on the other hand, such comprehension processes as the construction of mental models (Johnson-Laird, 1983) and the choice of the most relevant interpretation in the available context (Sperber & Wilson, 1986). On the basis of the results, it is also attempted to draw some conclusions concerning the processing of L2 texts where part of the words are not made available by the text author, but have to be supplied by learners.

Finally, the term "gap-filling" is used deliberately, as the task design involves deleting whole words, whereas in a C-test the beginnings of the target words are revealed (Feldmann & Stemmer, 1987, p. 252). It is assumed that gap-filling requires both bottom-up and top-down processing, which also applies to two other forms of L2 text processing, namely reading comprehension (de Bot, Paribakht, & Wesche, 1997; Perfetti, 1999) and writing (Schoonen, Snellings, Stevenson, & Van Gelderen, 2009).

2 The Bi- and Multilingual Mental Lexicon

As Singleton (2003, pp. 168–169) concludes on the basis of a considerable body of research, the bi- and multilingual mental lexicon is neither fully connected nor completely separate. Taking into consideration such factors as the language acquisition context, vocabulary learning strategies and language proficiency, Cieślicka (2000, p. 33) has proposed the variable interconnection hypothesis, according to which "associative links connecting various nodes will vary in strength according to the type of a bilingual person's experience with his or her L2". As Cieślicka (2000, p. 52) remarks, "the strategy of L2 learning significantly influences the strengths of connections obtaining in bilingual lexical networks". More precisely, bilinguals who learn L2 words in semantic sets respond faster to semantically related stimuli, whereas those who learn pairs of translation equivalents respond faster to translation stimuli.

In a similar vein, Herwig (2001) postulates gradual development of the structure of the multilingual lexicon. In her view (Herwig, 2001, pp. 116–117), the L2

lexicon starts out as an extension of the L1 lexicon, with L2 words connected to their equivalents by lexical links (cf. also Kroll & Stewart, 1994), and with time and increased proficiency the links between L2 words are strengthened and those between L2 and L1 words are weakened. However, she admits that the extent to which "a second language will become independent varies, and is related to individual factors such as perceived linguistic distance, method of acquisition or user proficiency" (Herwig, 2001, p. 117). Indeed, as Jiang's (2000) model of L2 lexical development illustrates, lemma information—that is, the semantic and syntactic properties of lexical items, copied from L1 to L2—can lead to fossilization and the production of incorrect, L1-based forms.

Moreover, Herwig (2001) adopts the view that lexical entries are stored in a distributed way; that is, their different properties (phonological, orthographical, semantic, syntactic, morphological, etc.) are stored in separate nodes, and words can be interconnected at different levels, for example, cognates are connected at the semantic, orthographic and phonological levels, synonyms are connected at the semantic level, etc. As Herwig (2001, p. 119) observes, "[a] lexico-semantic network, which organises conceptual content in semantic fields, is opposed to a lexical-formal network, which organises linguistic expressions according to perceptual similarity". She thus admits the existence of three sets of associations which constitute the basis of processing in the multilingual mental lexicon: there is one such set within each representational level, whereas the third one connects both levels. She further adds that "lexical knowledge comprises collocational knowledge and grammatical knowledge, which are again based on specific associative connections and on procedural knowledge" (Herwig, 2001, p. 119).

In fact, the distributed view of the organisation of the mental lexicon is supported by neuropsychological research and tip-of-the-tongue (TOT) states. As Miozzo and Caramazza (1997) have shown, the retrieval of the grammatical gender of words in TOT states indicates that, on the one hand, the retrieval of grammatical information is independent of that of semantic and phonological information (Miozzo & Caramazza, 1997, p. 1421) and, on the other hand, even though in a TOT state one generally accesses the right grammatical category (Miozzo & Caramazza, 1997, p. 1411), this does not guarantee the retrieval of such grammatical features as gender (Miozzo & Caramazza, 1997, p. 1421). In fact, as Miozzo and Caramazza (1997) observe on the basis of a large body of neuropsychological research, grammatical information, especially grammatical class information, "plays a crucial role in lexical organization" (p. 1411). The evidence they present indicates that the different grammatical properties (grammatical class, gender, auxiliary verbs used to create perfect forms, etc.), as well as the phonological, semantic, etc. properties of lexical entries, are distributed and some of them are accessed, while others are not.

Given that grammatical properties are stored within lexical entries, it can be supposed that grammar is inseparable from the lexicon and the grammatical properties of words influence sentence structure more than any general phrase structure rules of the type: S → NP + VP. It is the syntactic properties of the verb that determine whether the verb phrase consists of the verb and a direct object, the

verb and a prepositional phrase, etc. According to Lewis (1993), "[l]anguage consists of grammaticalised lexis, not lexicalised grammar" (p. 89). As Singleton (2000) puts it, "(…) the recent trend in linguistics has been towards a much wider conception of the interaction between lexicon and syntax—to the point, indeed, where it is becoming increasingly difficult to pronounce with any confidence on the question of where lexicon ends and syntax begins" (p. 17).

As the following examples show, the structures of the sentences are determined by the properties of the main verbs:

> She *intends to eat/intends eating* chocolate tonight. [intend + to + VERB/intend + VERBing]
>   She *regrets eating* chocolate tonight. [regret + VERBing] (Singleton, 2000, p. 17)

However, the properties of lexical items, including translation equivalents, can vary from one language to the other. For example, in Polish the verb "informować" (to inform) can take a clause without a direct object (e.g., informujemy, że lot został odwołany; literally: *we inform that the flight has been called off, Polański, 1999/ 2000), whereas in English the verb "to inform" requires a direct object (we inform the passengers that…). In fact, the syntactic properties of translation equivalents can be completely different, as in the case of the verbs "to like" in English and "gustar" in Spanish or "piacere" in Italian (*I like this film*, vs. *Me gusta esta película* and *Mi piace questo film*, where the latter two are more like "this film pleases me"), therefore relying on lexical-level links and copying the semantic and syntactic properties (lemma information, Levelt, 1989) of the L1 equivalent can lead to negative transfer and, consequently, errors (Hall & Ecke, 2003; Jiang, 2000) and even fossilisation.

Similarly, the concepts underlying translation equivalents do not always overlap fully (Pavlenko, 2009) and learning the target L2 concepts often requires conceptual restructuring. Pavlenko (2009) describes this kind of learning as "a gradual process, taking place in implicit memory" (p. 150). A similar view is shared by Sonaiya (1991), who defines vocabulary acquisition as "continuous lexical disambiguation" (p. 279). For example, one may learn the French verbs *informer*, *apprendre* and *enseigner* as near synonyms, but only later does one acquire the subtle differences between the meanings of the words and their uses in context. Still, according to Hall and Ecke's (2003) "parasitic" model, copying L1 lemma information is a natural stage in foreign language vocabulary learning. It is nonetheless necessary to gradually stop relying on L1 lemma information and fill the L2 lemmas with information extracted from contexts in which the L2 words are used (Jiang, 2000, p. 53).

Last but not least, semantic and syntactic rules are not the only limitations on the use of lexical items. In fact, words are not combined indiscriminately, but they form collocations, defined as "the habitual co-occurrence of individual lexical items" (Yorio, 1989, p. 67), which can be placed on a continuum between free and fixed collocations (Lewis, 1993, p. 93). For example, while the noun *butter* can be modified by various adjectives (*fresh*, *melted*, etc.), the adjective *rancid* only collocates with one noun, namely *butter* (Lewis, 1993, p. 93). Therefore, an important

part of native-like proficiency is idiomaticity, understood not as the use of numerous idioms, but as what Pawley and Syder (1983, p. 191, as cited in Yorio, 1989, p. 66) call "native-like selection". In fact, as Yorio (1989, p. 64) remarks, teachers often encounter errors which they cannot define, but which are forms that are not used in English.

In summary, L2 competence is a complex construct which involves different components, such as syntactic and semantic competence, idiomaticity, etc., all of which can be affected by L1 transfer, both positive and negative. However, all of these properties are to a greater or lesser extent represented in the mental lexicon, which means that lexical knowledge is indispensable to reading, writing and text construction in general.

3   L2 Reading Comprehension, Writing and Gap-Filling

Undoubtedly, gap-filling requires, first of all, good reading comprehension, followed by the selection of the contextually appropriate words from the mental lexicon. On the basis of Levelt's (1989, 1993) model of speech production on the one hand and L2 reading on the other, de Bot, Paribakht and Wesche (1997) have proposed a lexical processing model relevant to both L2 reading and writing. According to them (de Bot et al., 1997, p. 315), the decoding of written input leads to the activation of lexemes, or the parts of lexical entries which store their formal properties. The next stage is the activation of the corresponding lemmas, which store the syntactic and semantic properties. The lemmas then activate the underlying concepts, which, as more and more of them are activated, form a context.

However, the activation of concepts is not the end of the reading process, as concepts also send back activation to lemmas and lexemes, which makes it possible, for example, to choose the contextually appropriate meanings of polysemous words (Perfetti, 1999) or to deduce the meanings of unknown words from context (de Bot et al., 1997). Still, in comprehension, syntactic bootstrapping supplements semantic bootstrapping (Pinker, 1984, as cited in de Bot et al., 1997), which means that not only are word meanings deduced from the context, but they also help learners to "make conjectures about syntactic structures" (p. 317). On the other hand, in the model proposed by de Bot et al. (1997, p. 315), writing starts with the selection of concepts, which activate the matching lemmas, the lemmas in turn activate the corresponding lexemes, and, finally, the encoding of the lexemes in writing results in written output.

Moreover, like reading, writing is also a cyclical rather than a linear process (Schoonen et al., 2009, p. 80). According to Schoonen et al. (2009), generating a text involves revision, which reflects the monitoring process: the writer uses "(metacognitive) knowledge to judge the appropriateness of the writing, and this monitoring may lead to revisions at different levels of the text" (p. 80). Still, as Schoonen et al. (2009) observe, L2 writers tend to concentrate more on linguistic processing, which is reflected in "localized (re)reading" and problem-solving

(p. 89). "This narrowing of focus is possibly a reflection of the greater effort involved in FL formulation processes, with writers rereading the clause they are working on over and over again in an attempt to find appropriate words to express their ideas" (Schoonen et al., 2009, p. 89).

As has been mentioned earlier, as a form of text construction, C-tests and gap-filling share some similarities with writing, though they also differ from each other in some respects. As Feldmann and Stemmer (1987) point out, "the C-test is based on the principle of reduced redundancy and on the construct of an internalized pragmatic expectancy grammar" (p. 251), which, arguably, can be assumed to apply to gap-filling too. The difference is that in C-tests word beginnings are revealed, which to some extent prompts the target words, but at the same time the inability to retrieve the word intended by the text author prevents the learner from filling the gap at all. In contrast, gap-filling without revealing word beginnings may not activate any lexemes possessing the expected orthographic properties, but at the same time it gives the participants more freedom: if the target word cannot be retrieved, one can use a synonym, a hyperonym, etc. which will still fit in the context. Therefore, as both general comprehension and the search for particular words are required, filling gaps in a text involves both bottom-up and top-down processing.

According to Adams and Collins (1979, p. 5, as cited in Feldmann & Stemmer, 1987, p. 255), "bottom-up processing ensures that the reader will be sensitive to information that is novel or that does not fit her or his ongoing hypotheses about the content of the text". By contrast, "top-down processing helps the reader to resolve ambiguities or to select between alternative possible interpretations of the incoming data" (Adams & Collins, 1979, p. 5, as cited in Feldmann & Stemmer, 1987, p. 255).

In a gap-filling task like the one in the present study, bottom-up processing may involve the search for verbs with particular syntactic properties (for example, followed by the preposition *to*) or words which collocate with a word used in the text, whereas top-down processing may allow the creation of the whole context and guessing words whose meanings fit in it, if inserted into the gaps. According to Dubin and Olshtain (1993), the retrieval of lexical meanings requires the following components, which constitute textual support: "(1) general, extratextual knowledge, (2) thematic content, (3) semantic information beyond the sentence and paragraph level, (4) semantic information at the sentence level, (5) structural information within the sentence or paragraph" (p. 194). However, as Dubin and Olshtain (1993) have shown, in the process of retrieving the target words, "readers rely heavily on the immediate environment" and the final word selection is largely determined by local features (p. 197). Moreover, even native speakers filling gaps in L1 texts do not necessarily retrieve the words intended by the test author and, if the textual support is low, everyone may provide a different word (Dubin & Olshtain, 1993, p. 194). It can thus be supposed that similar mechanisms occur in gap-filling in L2 texts. First, the participants may rely on the local rather than the global context and focus, for example, on the syntactic properties of the verbs rather than on the extent to which the verbs fit into the overall semantic context of the text. Second, L2 learners' lexical knowledge is limited, both in size and depth. In other words, not

only may the number of words they know be relatively small, but they may also know only the basic word meanings, often based on associative links with L1 equivalents, without knowledge of different sense relations with other words of the same language, collocational restrictions, etc. (Henriksen, 1999, pp. 305–306). In fact, reliance on L1 cannot be excluded, as mental translation plays an important role in L2 comprehension (Kern, 1994) and it might be supposed that, while retrieving the target words, the participants may rely on translation from L1, looking for the equivalents of the words which would fit in the context if the text were written in L1. However, this could activate L1 lemmas with non-target syntactic and semantic properties and thus lead to errors.

Still, as both languages are to some extent interconnected, interaction between them and thus also negative L1 transfer are inevitable. In spoken language, according to Green (1993, p. 260), L1 and L2 words compete for production and if the activation level of a non-target word is high enough, it may be used instead of the target one. Of course, in written language borrowing from L1 is unlikely, except in the case of formally very similar cognates, but at the same time, negative transfer is possible, for example, in the form of a non-target L2 equivalent of a polysemous L1 word. One might also use a false friend or a word with non-target syntactic properties.

Still, however important the local linguistic features are, the role of context in text comprehension is undeniable and supplying words on the basis of purely local features, such as the prepositions following them, might distort the meaning of the text and lead the learner to commit further errors.

4 The Role of Context and Inference in Comprehension: Mental Models Theory and Relevance Theory

Undoubtedly, language comprehension is not limited to the identification of words and grammatical structures. Rather, the human mind uses the linguistic (more precisely, propositional) information to construct abstract representations of the text, which can be modified if new information disproves the first interpretation. Johnson-Laird (1983) calls such representations mental models, or "structural analogues of the world" (p. 165). He assumes that "descriptions are initially represented propositionally, i.e., by expressions in a mental language, and that the semantics of the mental language maps these propositional representations into mental models" (Johnson-Laird, 1983, p. 165). Moreover, according to Johnson-Laird (1983), "[m]odels are easier to remember than propositions, perhaps because they are more structured and elaborated", but constructing them requires more processing than constructing propositions (p. 162). Still, mental models are constructed not only on the basis of linguistic information, but rather "on the basis of the discourse, its context, and background knowledge" (Johnson-Laird, 1983, p. 128). It is thus important to rely not only on the immediate context of the text, where textual support might be too low, but one should also use one's world

knowledge in order to decide what interpretation makes sense in the available context. However, world knowledge should not be overused, as one might add to the text elements unintended by the author, which has been observed by the present author in her study on L3 comprehension (Wlosowicz, 2008/2009).

An important role in comprehension is played by inference. Explicit inferences require time and effort and "they are at the forefront of your awareness" (Johnson-Laird, 1983, p. 127), whereas implicit inferences are drawn automatically. As Johnson-Laird remarks (1983), "[a]t the point at which most of these inferences are made they can seldom be securely established; they are plausible conjectures rather than valid deductions" (p. 128). It must thus be remembered that comprehension is a dynamic process and inferences are not drawn once and for all, but they can be modified if the subsequent information disproves them (Johnson-Laird, 1983, p. 127).

The inferential nature of comprehension is also stressed by Relevance Theory (Sperber & Wilson, 1986). People tend to draw inferences which are relevant in the context available to them, where "relevant" means providing new information enriching or modifying the assumptions present in the recipient's mind, but at the same time plausible enough to be drawn without effort. Sperber and Wilson (1986) define relevance in the following way:

> *Relevance:*
>   *Extent condition 1*: an assumption is relevant in a context to the extent that its contextual effects in this context are large.
>   *Extent condition 2*: an assumption is relevant in a context to the extent that the effort required to process it in this context is small. (p. 125)

However, the context is not fixed; rather, people assume that the assumption being processed is relevant, so they search for the context that will maximise relevance.

> Achieving maximal relevance involves selecting the best possible context in which to process an assumption: that is, the context enabling the best possible balance of effort against effect to be achieved. When such a balance is achieved, we will say that the assumption has been *optimally processed*. (Sperber & Wilson, 1986, p. 144, their emphasis).

Moreover, like a mental model, the context available to a hearer is a psychological construct which comprises his or her assumptions about the world (not necessarily the actual state of the world) and can include information provided in an utterance, scientific hypotheses, religious beliefs, assumptions about the speaker's mental state, etc. (Sperber & Wilson, 1986, pp. 15–16). For this reason, relevance can be largely idiosyncratic.

It can be assumed that, as in L1, L2 comprehension is also inferential; however, since L2 learners' and users' linguistic knowledge is more or less limited, such inferences may require more effort and not always be correct. Moreover, in the case of gap-filling, drawing inferences is only the beginning of the next stage, which consists in providing the target words. Therefore, errors may be due not only to incorrect lexical selection, but also to incorrect inferences drawn at the comprehension stage.

5 The Study

5.1 Participants

The study was carried out at a private academy where the present author used to work, with the participation of fifty-two M.A.-level English Philology students, thirty-six of whom were female, seven were male and nine did not indicate their sex. They were generally advanced in English (their levels of proficiency may be assumed to have been mostly in the B2-C1 range), yet it might be supposed that they still lacked some detailed lexical knowledge, such as shades of meaning and collocational restrictions.

5.2 Procedure

The study consisted of two gap-filling tasks: a multiple-choice test and a "free production" gap-filling task, followed by a short questionnaire concerning the tasks, especially the words which had caused them particular difficulty and the reasons why they considered appropriate the words they had used. In order to facilitate the identification of the particular items, they are encoded in the following way: the number of the task is indicated by means of a Roman numeral, whereas the items used in each task have been given Arabic numerals. For example, "I/5" means "item 5 from Task 1", while "II/4" means "item 4 from Task 2". The research questions were as follows:

1. How correct are the participants' responses? Do they fit semantically and syntactically into the context of the text? Does the correctness of the responses depend on the type of properties required? In other words, does it depend on whether the target items have to fit into the context semantically or syntactically, or form the right collocations and phrases?
2. What kinds of errors did the participants commit?
3. What do the responses reveal about language processing in the completion of L2 texts?

5.3 Results and Discussion

5.3.1 Results of the Multiple-Choice Test

The results of the multiple-choice test are presented in Table 1 below. The target words were classified as correct, failure to choose any answer was classified as avoidance, and the "incorrect/non-target" category included both completely incorrect responses (e.g., *a plucky solution*, which violates the collocational

Table 1 The results of the multiple-choice test: percentages of correct and incorrect responses and avoidance

Item	Correct (%)	Incorrect/Non-target (%)	Avoidance (%)
I/1	34.6	65.4	
I/2	63.5	36.5	
I/3	26.9	71.2	1.9
I/4	53.8	42.3	3.8
I/5	40.4	57.7	1.9
I/6	15.4	82.7	1.9
I/7	65.4	32.7	1.9
I/8	44.2	53.8	1.9
I/9	25	73.1	1.9
I/10	44.2	50	5.8
Total:	41.35	56.54	2.11

restrictions for both *plucky* and *solution*) and words which sound odd in the context (*pleading* instead of *pestering*). The multiple-choice test is presented in Appendix 1 at the end of the article.

As the percentages indicate, the most difficult items to provide were item I/6 (82.7 % of the responses were incorrect or non-target responses), item I/9 (73.1 %), item I/3 (71.2 %), item I/1 (65.4 %), item I/5 (57.7 %) and item I/8 (53.8 %). In the case of item I/6, the target word was *ingenious* ("an ingenious solution"), which was chosen by only 15.4 % of the students, whereas the majority chose the word *wise*, which was an example of L1 transfer ("*mądre rozwiązanie*"). In fact, *Oxford Collocations Dictionary for Students of English* (2002, p. 729) does not list the collocation *a wise solution*, so it must be relatively rare. It is also possible that the available context (and possibly the Polish translation) sent activation to the lemmas of adjectives whose semantic properties relate to the concepts of *intelligent*, *clever*, etc., thus leading to the selection of the semantically related word which reached the highest level of activation and therefore seemed the most plausible to the participants. Some of the students also chose *a witty solution*, which contradicts the semantic properties of *witty* and its choice might be explained by the search for a more precise word than *wise*, yet better known to the students than *ingenious* and *plucky*.

The target word in sentence I/9 was *defy* [her boss]. However, the majority chose either *refuse*, which was probably based on L1 transfer (cf. "*odmówić szefowi*") or *deny*, which was semantically and syntactically odd (one can deny doing something, or deny that something is the case; the collocation *deny* + *noun* would include such nouns as *crime*); again, transfer from Polish can be supposed, namely reliance on a lexical-level link between *deny* and *zaprzeczyć*.

Item I/3 was expected to be an adjective describing the boss's speech, which, as the context indicated, had been a blunder, so the target word was *comical*. However, the participants tended to choose *humorous* or *witty*, whose meanings suggest something funny and intelligent, which was not the case.

Item I/1, *pestering*, was supposed to be deduced from the context of angry customers phoning the secretary over and over again ("angry customers pestering her to tell them when their orders were going to arrive"). In fact, the word had appeared in a similar context in a CPE test previously done in class. However, most of the participants chose *demanding* (which was a possible, but non-target response), *requiring* and even *pleading*, which was odd in the context of angry customers.

As for item I/5, it revealed the students' ignorance of the expression *to keep a straight face*. Instead, they mostly chose *motionless*, but some also chose *smooth* or even *stark*. This proves that filling gaps requires not only the knowledge of the semantic properties of words, but also that of idioms and fixed collocations.

Finally, item I/8 required the word *rarity* to describe the music of a Celtic folk group. Most (22) of the incorrect answers involved the word *variety*, probably because the participants inferred from the context that the target word was a "variety" of music in the sense of a genre. Four participants chose *delicacy*, meaning something exquisite, even though this word refers to food. Two participants also chose *treasure*, probably because of their personal tastes (see also Sect. 6 below).

On the other hand, the easiest word to supply was item I/7, *to meet [all the guests' expectations]*, which is a frequent collocation. However, the words *suit* and *fit* were also selected; nobody chose the word *correspond*, probably because they knew its syntactic properties ("to correspond to something").

5.3.2 Results of the "Free Production" Gap-Filling Task

The results of the "free production" gap-filling task are presented in Table 2. The term "free production" is used to indicate that no cues apart from contextual ones were available, so the participants were free to use any words that seemed correct to them. (The text used in this task is presented in Appendix 2.)

Table 2 Percentages of responses in the free production gap-filling task

Item	Correct (%)	Incorrect (%)	Partly correct (%)	Avoidance (%)
II/1	46.15	32.7		21.15
II/2	3.8	34.6	1.9	59.6
II/3	26.9	42.3	11.5	19.2
II/4	42.3	38.5	11.5	7.7
II/5	30.8	48	3.8	17.3
II/6	61.5	30.8		7.7
II/7	40.4	42.3	11.5	5.8
II/8	44.2	32.7	3.8	19.2
II/9	40.4	36.5	7.7	15.4
II/10	26.9	46.15		26.9
Total:	36.35	38.46	5.19	20

As the results indicate, the most difficult gap to fill was item II/2 (*too* in *too heavy a burden*), which led to 59.6 % avoidance and 34.6 % errors, such as "really heavy a burden" ("a really heavy burden" would have been possible and, if they had written the text themselves, they might have used it this way), "such heavy a burden" or "so heavy a burden" (one subject remarked she knew this construction), though the latter would have been correct if another phrase had followed it (for example, "so heavy a burden that she could not cope with it"), and even "make heavy a burden".

Item II/5 was also difficult, with 48 % errors and 17.3 % avoidance. Here, the target word was *smoothly* to make the expression *running smoothly*, though *running well* was also accepted. However, some participants thought it was a phrasal verb and provided such answers as "running up/down/through/out/on", etc.

Item II/10 lead to 46.15 % errors, 26.9 % avoidance and only 26.9 % correct answers. The target answer was *to ward* [*off a malaria epidemic in Bangladesh*], though *to fight off* was also accepted, assuming that the participants thought the epidemic had already broken out, even though the intended meaning was that the epidemic was expected to be prevented or nipped in the bud. However, the incorrect answers include quite "wild" guesses, ranging from "to terminate off" and "to break off" to "put off", "call off", "one off" and even "wash off". Apparently, those students tried to supply any phrasal verbs that occurred to them, without paying attention to the context.

In the case of item II/7, the proportions of correct (40.4 %) and incorrect (42.3 %) answers are comparable. The target word was *addition*, as part of the expression *in addition*, which seemed to receive considerable textual support ("In addition to rescuing horses, Patricia felt obliged to raise money for the victims of a drought in Ethiopia"). However, the incorrect responses included, for example, "in away", "in conclusion", "in respond", "in the end", "in contrast", etc., which suggests that some students wrote anything that seemed to collocate with *in*, disregarding the larger context. Partly correct answers included non-target responses which were nonetheless plausible, for example, "in August" and "in the past".

The easiest one was item II/6, *hardly* ("Hardly had she announced a campaign to rescue horses from transport in inhumane conditions when she was told it was no use helping animals as long as there were people who needed help"), which was supplied by 61.5 % of the participants, who knew the grammatical rule. However, such responses as "never" and "no sooner" were also observed. Apparently, the participants knew that these words required inversion, but either they did not pay attention to the semantic context (*never* did not fit at all), or to the syntactic properties of *no sooner* (*no sooner… than*, but not: *no sooner… when*).

5.3.3   Relationship Between Contextual Constraints and Correctness

In order to check whether the correctness of the responses depended on the type of item, a chi-square test was used, though only for Task 2, as in Task 1 the non-target alternatives could be of different types: for example, one was

Table 3 The contingency table for the chi-square analysis of the responses provided in Task 2, grouped according to the target words' properties

	Syntactic	Semantic	Collocation/Phrase	
Correct	34	104	51	189
Incorrect	34	95	71	200
Partly correct	1	18	8	27
Avoidance	35	43	26	104
	104	260	156	520

semantically odd, while another did not meet the syntactic constraints. Moreover, apart from the fixed collocations in I/7 ("meet all the guests' expectations") and I/5 ("keep a straight face"), as well as one alternative violating the syntactic constraints on the verb in I/1 (*pleading her to tell them*, instead of *pleading with her to tell them*; target: *pestering*), the choice of words in Task 1 was based on semantic properties.

Still, the analysis aimed to compare the correctness of the students' lexical choices in semantically, syntactically and collocationally restricted contexts. In Task 2, gaps II/2 and II/6 required the use of a word with the right syntactic properties, gaps II/1, II/3, II/4, II/8 and II/9 required words which fitted into the semantic context, and items II/5, II/7 and II/10 required parts of collocations or phrases, so, for the analysis, they were grouped together on this basis, as Table 3 shows. Given the importance of the syntactic properties of words, such as the choice of prepositions following verbs, or the obligatory or optional character of complements, for the syntactic structure of sentences (see Sect. 2 above), the selection of the right word in the syntactically restricted contexts depended not only on the meaning of the item filling the gap, but also on the syntactic requirements it had to meet. In the case of items which had to meet collocational or phrasal requirements, the choice could be even more restricted, as collocations and other more or less fixed phrases (idioms, phrasal verbs, etc.; here, we treat them as collocational restrictions in general, because the analysis takes into consideration more or less fixed word combinations, although it must be stressed that differences between collocations, idioms, phrasal verbs, etc. exist and can be fully relevant to other studies), do not generally allow any lexical items, but those which are conventionally used in them. It could thus be supposed that difficulty in supplying lexical items could indeed depend on the type of contextual restrictions on each item.

$$\chi^2 = 22.281, \ df = (r - 1)(c - 1) = (4 - 1)(3 - 1) = 6$$

For $p < 0.005$ the critical value of $\chi^2 = 18.5476$ (Pearson & Hartley, 1963, as cited in Brown, 1988, p. 192), so $\chi^2_{\text{obs.}} > \chi^2_{\text{crit.}}$ Therefore the difference is statistically significant and there is only 0.5 % probability that the differences occurred by chance.

It can therefore be concluded that the correctness or incorrectness of the responses, or avoidance, depended on the types of items used. Indeed, in the case of semantically appropriate items, the participants had more freedom, as they could supply any words which fitted in the context and did not make the sentence odd, whereas in the case of collocations and phrases, the number of possible answers was limited. Similarly, in the case of syntactically conditioned responses, one had to know the rule or the required function word and, again, the grammatical rule (inversion) proved a better cue than the syntactic properties of *too*.

Finally, reliance on local linguistic features, disregarding the larger context, led to a considerable number of errors, especially in the case of items II/5, II/7, II/9 and II/10. In the case of item II/5, 22 of the 25 erroneous responses were the results of a search for a phrasal verb with *run*, without taking into account the possibility of using an adverb. In item II/7 all the 22 erroneous responses resulted from focusing only on finding a word collocating with *in*. By contrast, item II/9 required a verb such as *invite* or *encourage* ("People would be invited/encouraged to run or cycle in order to raise the necessary funds"), though adjectives like *eager* were also possible. However, the students tended to write "able", as the modal verb *to be able to* is quite frequent and was activated fairly automatically. Finally, item II/10 required completion of a phrasal verb. Here, 23 of the 24 errors resulted from supplying a non-target verb on the basis of the fact that it formed a phrasal verb with *off* ("put off", "break off", "cut off"), or combined with the preposition *of*, confused with *off* at the phonological level ("dispose off", "get rid off"). This shows that, even though learners tend to rely on local cues (Dubin & Olshtain, 1993), they should also take into account the larger context and form a coherent mental model of the text.

6   Conclusions

In general, more incorrect (56.54 % in Task 1 and 38.46 % in Task 2) than correct answers (41.35 % and 36.35 % respectively) have been observed. As the chi-square analysis has shown, the correctness of the responses did depend on the type of properties (syntactic, semantic or collocational) required of the target words. As was mentioned above, semantic requirements are often less strict than syntactic and especially collocational restrictions. Consequently, the items requiring semantically appropriate words allowed more correct answers, as different words could fit in the slots.

The participants' errors were of different kinds, ranging from incorrect collocations, phrasal verbs and inappropriately completed expressions ("a *motionless* face", "to *wash off* a malaria epidemic", etc.), through transfer from L1 Polish ("a *wise* solution", "to *deny* her boss") and insufficient knowledge or activation of semantic properties ("angry customers pleading her…", "what he would *scatter* by his inconsiderate behaviour", etc.), to disregarding the context ("working for her favourite *firm*" instead of "her favourite organization/charity").

The fact that such a large number of the students' responses were incorrect indicates that supplying the missing words to reconstruct a text is actually a difficult task, especially if the words must not only fit in the semantic context, but also form collocations or phrases with other words present in the text, or possess the appropriate syntactic properties. However, if the syntactic properties of a word differ from those required by the syntactic slot, the word can be eliminated, as in the case of the verb *to correspond to something*.

As for processing, it operates in several directions, not only within the L2, but also the L1 mental lexicon, though reliance on L1 lemma information (the semantic or syntactic properties of the L1 equivalent) can lead to negative transfer. Actually, bottom-up processing seemed to predominate: rather than looking for a word that fitted in the larger context, some students supplied words which seemed to them to fit in the local context (e.g., *to work for a company/firm*, not an organization, which would have been more plausible in the case of an environmentalist and human rights activist). In fact, when asked to justify their answers, most of the students wrote they had guessed, the response seemed right to them, etc., so it is possible that the task was so difficult for them that they resorted to guessing. Still, relying on local features without forming a coherent mental model of the text often led to errors.

However, some participants relied on their world knowledge and personal beliefs and thus chose answers which seemed relevant to them, as defined by Sperber and Wilson's (1986) Relevance Theory, although they were not necessarily correct, for example: "She thought of inviting a musical group called The Breton Princes, which specialized in Celtic music, but she then started to fear that such a _____ would not suit all tastes". (Task 1). Instead of "rarity", one subject chose "treasure" and wrote: "Celtic music is a treasure for me". In Task 2, the same person wrote "forced" ("People would be forced to run or cycle in order to raise the necessary funds"; possible targets: *encouraged*, *invited*, *asked*, though the adjectives *glad* and *eager* were also accepted in the context) because, as she explained, "Cycling and running is not a pleasure".

In summary, the study shows that gap-filling in L2 constitutes not only a cognitively demanding task, but also a complex process, involving, on the one hand, reading comprehension, which should encompass not only the immediate context of a word, but a larger context, such as the whole sentence or paragraph, and on the other hand, the retrieval of words which meet the appropriate semantic, syntactic and collocational requirements. Although L1 influence is inevitable, participants should monitor their production in order to avoid negative transfer. However, in accordance with Jiang's (2000) model of L2 lemma development, rather than relying on lemma information copied from L1, they should do their best to acquire the right lemma information from the L2 input. Finally, in order to avoid errors caused by excessive reliance on local linguistic cues, such as the preposition following the target verb, they should pay more attention to the context, form a mental model of the text and draw inferences which are relevant to them in the context of the text rather than, for example, the local verb phrase.

Appendix 1: The Multiple-Choice Test Used in Task 1

"Respect Your Boss"

Being the secretary of an ambitious albeit rather incompetent boss can be a nightmare. Joan's boss was in the habit of making promises he did not intend to keep, which often resulted in angry customers (1) _____ her to tell them when their orders were going to arrive.

Now that the company was going to celebrate its 50th anniversary Joan wondered what he would (2) _____ by his inconsiderate behaviour. His latest blunder had been a (3) _____ speech made during the visit of the Minister of Industry, which proved to be a(n) (4) _____ of the company's activities. As his secretary, Joan had to stand beside him and keep a (5) _____ face.

The preparation of the anniversary celebrations was also her responsibility. First of all, she had to propose a(n) (6) _____ solution to the problem of inviting the right guests, also from among the competitors, so as not to offend anyone. Second, she had to create a social programme that would (7) _____ all the guests' expectations. She thought of inviting a musical group called The Breton Princes, which specialized in Celtic music, but then she started to fear that such a (8) _____ would not suit all tastes. One thing was certain: she had to do her job well and could not (9) _____ her boss, or else she would lose her job.

Running around the building, she even had no time to eat. In a hurry, she bought a doughnut and bit into it, and the marmalade (10) _____ all over her cheek.

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 1. A. pestering    B. requiring    C. demanding    D. pleading
 2. A. scatter    B. mix up    C. mess up    D. demolish
 3. A. witty    B. joyful    C. humorous    D. comical
 4. A. image    B. portrayal    C. misrepresentation    D. portrait
 5. A. smooth    B. straight    C. motionless    D. stark
 6. A. witty    B. plucky    C. wise    D. ingenious
 7. A. meet    B. fit    C. suit    D. correspond
 8. A. treasure    B. delicacy    C. rarity    D. variety
 9. A. deny    B. defy    C. refuse    D. reject
10. A. dashed    B. trickled    C. gashed    D. gushed
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Appendix 2: The Text Used in Task 2

'Doing Good is Not Always Easy'

Patricia, an environmentalist and human rights activist, was so tired that she was beginning to regard working for her favourite (1) _____ as

(2) _____ heavy a burden. People did not often want to listen to her (3) _____ and, when asked to make a donation to charity or to sign a petition, they would reply in a (4) _____ way, saying, for example, that it was a waste of time and money.

That day she was really frustrated, as nothing seemed to be running (5) _____. (6) _____ had she announced a campaign to rescue horses from transport in inhumane conditions when she was told it was no use helping animals as long as there were people who needed help.

In (7) _____, she felt obliged to raise money for the victims of a drought in Ethiopia. Holding a newspaper (8) _____ describing the situation, she thought it would be a good idea to organise a sporting event. People would be (9) _____ to run or cycle in order to raise the necessary funds.

"If people were more generous", she thought, "we might also be able to launch a campaign to (10) _____ off a malaria epidemic in Bangladesh".

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Part III
Deconstructing Text

Texts as Vocabulary Networks

Paul Meara

Abstract This paper describes a new way of mapping the structure of a text. It uses an approach that has become very popular in bibliometric analyses of research fields, but in more general terms can analyse any data in which sets of items co-occur in short contexts. In this paper we present a co-occurrence analysis of words in sentences in two short texts, and present a set of two dimensional maps which illustrate the lexical structure of the texts. The analysis suggests that LEXICAL CLUSTERING might be an emergent feature of texts, and clustering may play a significant role in the way learners acquire words, and the way these words organise themselves into semantic sets and formulaic sequences.

1   Introduction

Some years ago, I developed an interest in how you could best describe the way ideas grow and fade in research—specifically in the area of vocabulary acquisition. Partly this interest grew out of a discovery of some very early research on the use of word lists in the teaching of modern languages (Meara, 2014). I was surprised to find that there is a very large literature on this topic published in the 1920s, and even more surprised to find that hardly anybody knew about this work. And this got me interested in ways of tracing the history of ideas in scientific papers. This is not a new field of research, of course. Some early work of this sort can be found in Price (1963) which describes some important characteristics of citation patterns— the probability that a paper will be cited in a given time span, the probability that a paper once cited will be cited again, the probability that a paper will for all practical purposes cease to be cited, and so on. Price was particularly interested in identifying *research fronts*—places where the pattern of citations suddenly changes when a particularly significant new idea is taken by researchers and begins to be widely cited (Price, 1976). Price argued that some of these patterns can be identified using

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co-citation methods—i.e., by identifying authors who tend to be cited together. This idea was developed further by Small (1973) and in a particularly influential paper by Small and Griffiths (1974). Co-citation analysis received a massive boost when large-scale bibliographic databases became readily available, and the tedious work of compiling very large lists of citations and co-citations was more easily automated. Co-citation analysis is now one of the standard tools in bibliometrics.

Conducting a co-citation analysis is basically very simple. First, we select a set of papers which represents the universe that we are interested in analysing. Next we extract from the bibliography of each paper a list of people that the paper cites. Next for each paper, we make a list of the co-cites.

Finally, we merge the co-citations into a single list, and record how often each co-citation pair occurs in the dataset. These data can then be mapped using a standard graphics package—typically this is done by clustering the data, and grouping into clusters the authors who tend to be cited together. Some examples of this type of analysis can be found on my web-site, where the methodology is explained in more detail (http://www.lognostics.co.uk/maps/).

Co-citation analysis is normally used in the context of bibliometric analysis, but it is, in fact, a more general research method which can be used to map any type of connected data. Basically, it takes a set of items, establishes the pattern of links between the items, and then maps out these patterns in ways which illuminate the underlying structure of the data. As I was preparing for the Lublin seminar, I wondered whether it might be possible to use the co-citation methodology to examine the relationships between words in texts. This analogy is not quite as far-fetched as it seems: words co-occur in sentences with other words, and it is therefore possible to identify co-citation links between words in a text. Words which tend to occur together in sentences ought to emerge as co-occurrence clusters, and this made me wonder what kind of clusters would an analysis of this sort give rise to. The rest of this paper is an exploratory study of this issue.
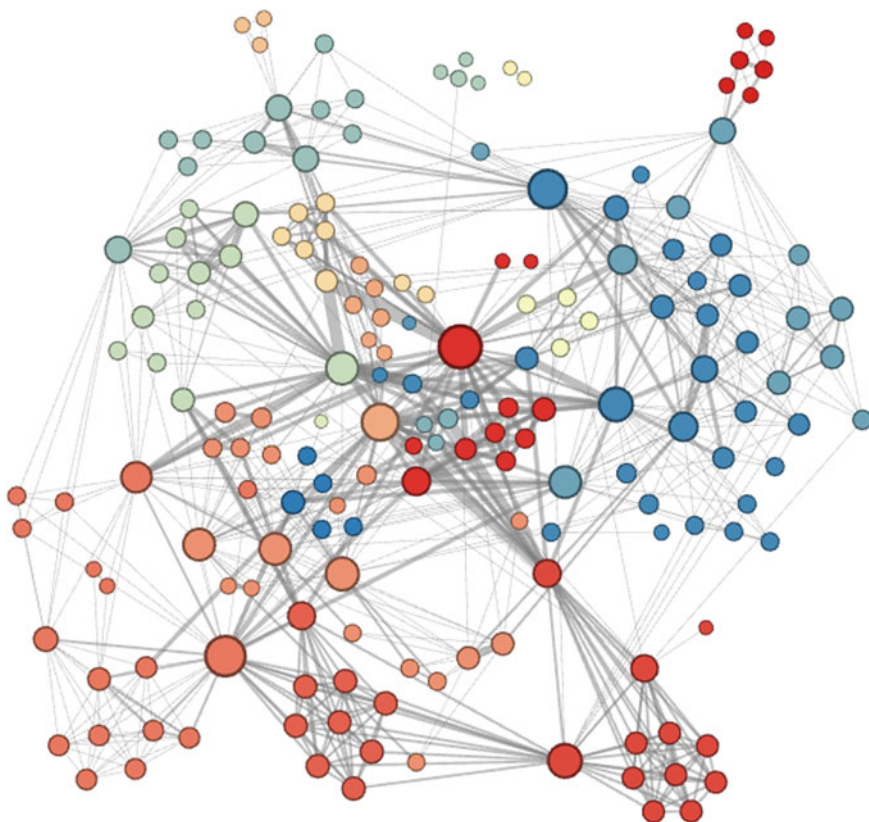
2   The Study

The analysis that follows is based on two short texts: *The Gruffalo* by Julia Donaldson and Axel Scheffter, and its sequel *The Gruffalo's Child* (Donaldson & Scheffter 1999, 2004). These texts are classic children's stories, a simple repetitive narrative structure, with quite a lot of dialogue between a small number of characters.

The Gruffalo contains 692 word tokens—182 word types—which gives a fair idea of the amount of repetition this text contains. The full text is available on a number of web-sites, including http://www.slideshare.net/mescudeblasi/the-gruffalo. Readers who are not familiar with the text are advised to read it before proceeding further.

I divided the text up into separate sentences, and computed the co-occurrences between each word type using some specially written software. This preliminary analysis identified 182 nodes—where each node represents a word type—and 1166 connections between these nodes. Figure 1 shows a map which plots these

Fig. 1 Preliminary mapping of The Gruffalo

relationships. In this map, the nodes are sized according to how many other nodes they are connected to, and for the best connected nodes, a label identifying the word has been added to the map. Lines between the nodes indicate that the linked nodes co-occur in at least one sentence: thicker lines indicate that this pattern of co-occurrence is frequent (for example the pair THE and GRUFFALO occurs very frequently in this text).

Clearly, and not surprisingly, the best connected nodes are mostly function words such as *and, the, a* and a handful of prepositions. These words co-occur with almost every other word in the type list. Because these words are so predictable, they actually carry very little structural information, and it therefore makes sense for us to eliminate them from our map, in order to examine the less predictable structure that remains. Figure 2 shows the effects of eliminating the six best-connected nodes in Fig. 1: *and a the he his* and *is*. In this figure, twenty clusters have been identified (this is shown by variations in the shading). Each cluster consists of words which tend to co-occur in the same sentence. The twenty clusters each show reliably different patterns of co-occurrence.

Fig. 2 The twenty clusters identified by the clustering program after the removal of six high frequency function words

It is worth pointing out at this stage, that the maps generated by the co-citation method look very different from traditional text-as-network maps. Figure 3, for instance shows a well known map of the opening sentences of Jane Austen's *Pride and Prejudice*, where a much more linear approach is taken. In this map, each word is connected by an arrow only to the two words which immediately precede and follow it. This mapping allows us to trace through the entire text, starting with IT => IS => A => TRUTH => UNIVERSALLY => ACKNOWLEDGED … right through to … WANT => OF => A => WIFE. It also shows that some words branch in many different directions (a, the, of), but that most do not. In fact, the structure that appears in Fig. 3 is overwhelmingly linear, and mapping this structure in two dimensions does not really enhance our understanding of what is going on in the text. Clearly, the co-occurrence approach that we find in Fig. 2 provides a much richer and more complex structure.

Figures 4 and 5 examine this structure in more detail, with the clusters more clearly identified, and the addition of labels which show the words belonging to each cluster.
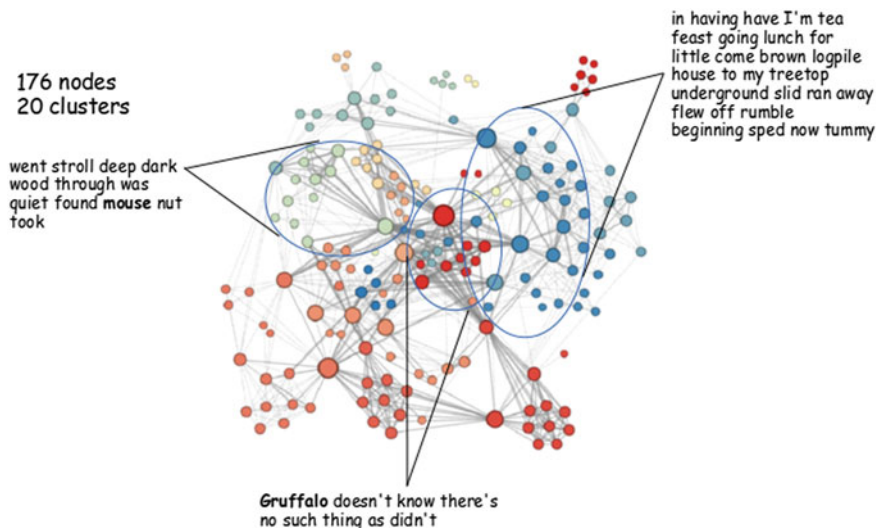
Fig. 3 A map of the opening sentences of Jane Austen's Pride and Prejudice

Fig. 4 Identification of the main clusters in Fig. 2

**176 nodes
20 clusters**

went stroll deep dark
wood through was
quiet found **mouse** nut
took

in having have I'm tea
feast going lunch for
little come brown logpile
house to my treetop
underground slid ran away
flew off rumble
beginning sped now tummy

Gruffalo doesn't know there's
no such thing as didn't

Fig. 5 Further identification of the main clusters in Fig. 2

A number of interesting points arise from this analysis. Firstly, most of the clusters are surprisingly large, with an average of around 10 words per cluster. It is not immediately obvious why this should be the case. We might perhaps have expected a short text of the sort analysed here to generate one or two small clusters or formulae and a lot of words that do not really cluster at all, but instead we get a lot of large cluster formations. Secondly the clusters are generally quite difficult to characterise. Some clusters contain semantically coherent sets of words. Examples of this are:

oh dear help crumbs
frightfully terribly nice awfully kind
fox snake owl

Some clusters are sort of coherent, but not quite, in that they contain a few words that do not seem to fit with the other members of the cluster. An example of this is the cluster that contains the words:

scariest creature tusks teeth jaws claws terrible ... but with this too

Some clusters are clearly formulaic. e.g.,

there's no such thing as gruffalo

Other clusters are partly, but not completely formulaic: e.g.,

His favourite food is ... roasted scrambled ice cream crumble

where only part of the formula appears in the cluster.

And some clusters appear to be just a mess of unrelated words with no obvious syntactic, semantic or pragmatic features linking them together.

Clearly, there is something quite powerful going on here if such small amounts of text can generate such extensive structural relationships among the words. This suggests that clustering effects of the sort we have uncovered here might be an important emergent property of texts. However, the text we have dealt with so far is extremely short, and the clusters that we have identified are not very easy to explain. This raises a whole set of different questions about the nature of the clusters that we have identified. For example, we might ask:

- Are the clusters stable? (My guess would be probably not.)
- What happens when we add more text to this mapping?
- How do clusters grow?
- How do clusters shrink?
- What happens when a cluster splits?

And more generally:

- Does adding more text simply split the clusters into smaller more coherent clusters, or does more text produce a radical re-mapping?

We can test these ideas by merging our Gruffalo text with another text, and reanalysing the resulting larger data set. The obvious text to use for this study is the sequel to *The Gruffalo*, *The Gruffalo's Child.* This text is very similar to our original text, but it is slightly longer and lexically richer—607 word tokens and 225 word types. The sentences of the second text are also slightly longer than those of the first. The combined texts contain 1297 word tokens, and a total of 324 word types.

Figure 6 shows the structure which emerges from the cluster analysis of the combined texts. A number of highly frequent function words have been removed, as in Fig. 2. The remaining words appear to fall into 26 clusters—that is, doubling the length of the text has slightly increased the number of clusters found by the mapping program.

A close comparison between Fig. 6 and 2 suggests that the relationship between the clusters in the two maps is not at all straightforward. Some new clusters do appear in Fig. 6: for example, the cluster containing *thought for minute then scratched head* looks very much like the bones of a formulaic sequence that appears in the second text, but not the first. Other clusters remain more or less intact, and are largely unaffected by the addition of new text. An example of this is the cluster containing *leaves tree hiss hoot path feet ahead here,* which can be identified in both maps.

Other clusters seem to merge to form larger clusters. A good example of this is the large cluster at the bottom of Fig. 6 made up of *hello look looked saw hid its why silly old away frightfully nice wonderfully kind favourite food roasted fox scrambled snake ice cream owl crumble.* This new cluster contains words that appeared in two separate clusters in Fig. 2, and now includes the "missing" words from the formulaic form *his favourite food is X Y.*

There is a clear tendency for clusters to gather together words which are semantically or functionally similar, and a number of examples of this process are highlighted in Fig. 7 This figure also illustrates a small number of formulaic clusters appearing in the data.
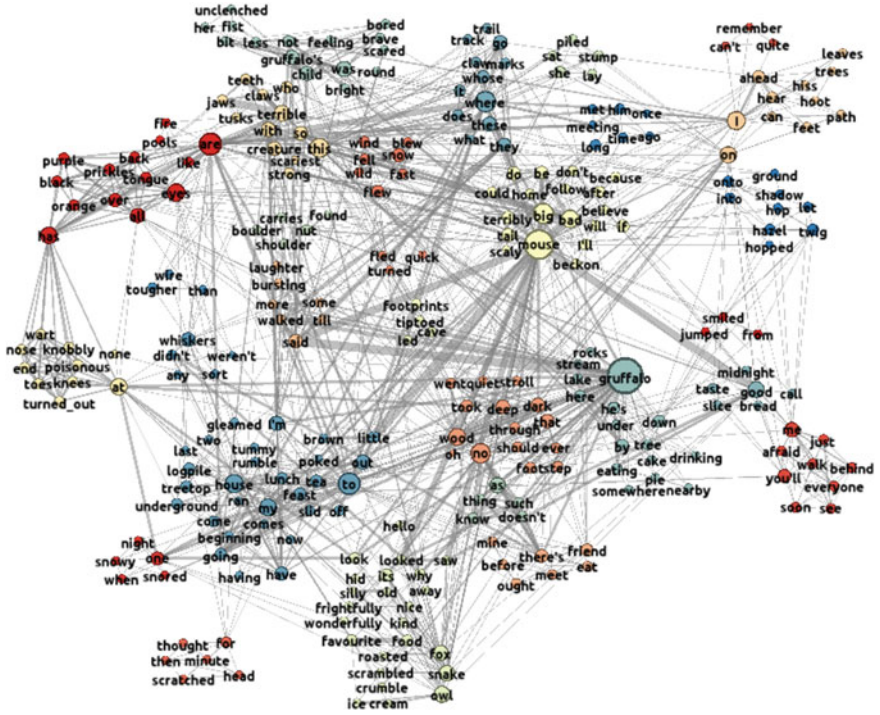
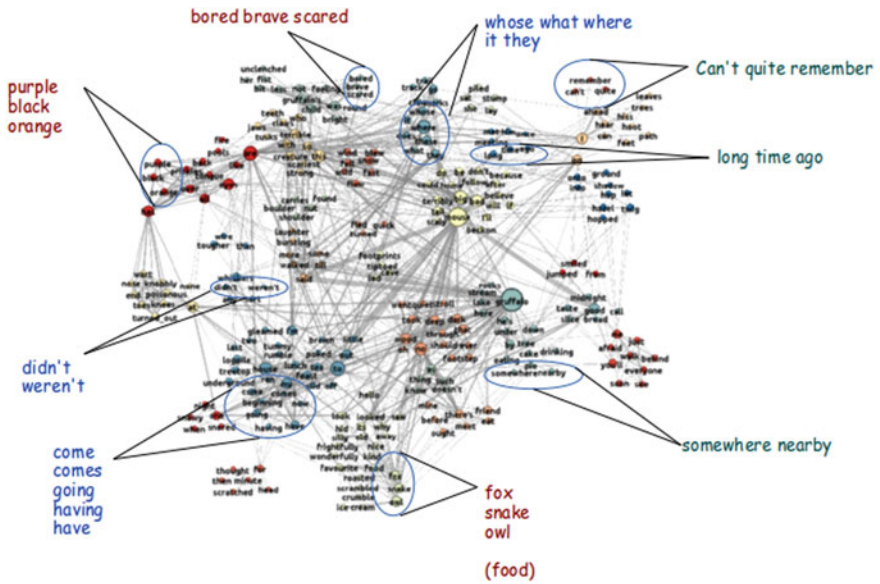**Fig. 6** Mapping the combined texts

Fig. 7 The emergence of formulae and semantic clusters

3   Discussion

The analysis that is reported in the previous section was based on the co-occurrence of words within a sentence. The analysis suggests that treating a text as a succession of co-citations actually generates some very interesting and rather unusual mappings of text structure. The critical new idea that emerges here is that *clustering* seems to be a very basic property of words in texts, and that clusters with interesting features appear to be an emergent feature of texts which contain some degree of lexical repetition. This approach is very different from the traditional analyses which linguists usually carry out when they are processing texts. In particular, the idea that lexically interesting features emerge from relatively short texts, seems important. Traditional corpus linguistics uses massive texts to establish what the important features of words are, and what co-occurrences differentiate between words with similar meanings. The analysis presented here suggests that mining a massive corpus may not be the only way of approaching things. My analysis has the additional advantage that it provides a mechanism, whereby a lexical structure could bootstrap itself on the basis of very short texts of the kind that children are regularly exposed to. All that is needed for this clustering process to get started is for a child (or an L2 learner) to begin *noticing* that words occur together in utterances (cf. Godfroid, Housen, & Boers, 2010). This feels like a very basic cognitive mechanism, and it is easy to see how a broader theory of language acquisition might be built on this foundation if further research shows that the clustering process is as powerful as this brief analysis suggests that it might be.

As usual, exploratory analyses of this sort raise some interesting questions which need further research. Some obvious questions, which unfortunately lie beyond the scope of this paper, include:

What happens if we analyse less repetitious texts? The text chosen for analysis here is particularly repetitious and formulaic, and to some extent this may have affected the type of cluster that appears in the analysis. On the other hand, the language that children are exposed to does appear to be typically repetitious, and in that context, the text analysed here may not be that unusual. We might guess that more normal text would produce fewer formulaic clusters, and more semantically based clusters, and it is an empirical question whether this is actually the case.

What happens if we use longer texts than the one analysed here? We might guess that longer texts would typically produce networks containing more clusters than shorter texts do, but it is not obvious that there would be a linear relationship between text length and the number of clusters identified by the clustering program. Nor is it obvious that the number of clusters would increase indefinitely with text length. Perhaps there is an asymptotic value that longer texts tend towards? Again, these are questions that it would be relatively straightforward to investigate.

What happens if we set higher thresholds for inclusion? In the analysis reported here, every occurrence of a word contributed to the map, even if the word occurred only once in the text. One of the characteristic features of bibliometric research using co-citations is that researchers typically set a threshold for an author to be

included in the mapping—typically, this threshold would be that an author needs to be cited in at least x papers. We could apply the same sort of threshold to texts, and argue that a word needs to appear in at least x sentences for it to be included in the analysis. I *think* this would have the effect of reducing the number of formulaic clusters, and increasing the number of clusters with a semantic or syntactic focus. Again, this is a relatively straightforward analysis to do, and it would be interesting to evaluate the effects of different thresholds on the types of clusters which emerge.

A similar set of questions arises if we explore how the maps change when we map every single co-occurrence link between words, or if we map only the strongest set of links. Deleting the weaker links has the effect of reducing the size of the identified clusters, and leaving a larger number of words detached from the main map. Does this have any resonance with what happens in real lexicons?

We might also ask how much text do we need to analyse for a stable network to emerge. The exploratory analysis presented here suggests that the emerging clusters are not entirely stable, in the sense that adding more text causes some clusters to split and restructure. However, we might expect that the cluster map would become more stable as the text it was based on becomes larger, and this raises some interesting questions about what features encourage stable clusters to appear. Does the size of the network—the number of nodes it contains—play a role in this stabilisation? Or do we get both stable and unstable networks of differing sizes? We might also ask what are the characteristics of a stable network, and whether all stable networks look "the same" in some sense.

If cluster networks are typically unstable, then we need to ask: what are the typical dynamics of an emerging network? Do networks broadly remain stable, but transition into an unstable zone as more text is fed into them? What is the relationship between stability and cluster size? What is the minimum input that can trigger an organisational change? How does a network absorb input that is very different to what it is used to?

There are also a number of questions that arise if we start to look at the psycholinguistics of network building. A good place to start would be to ask: what would a network look like if the text contained a large number of words that the reader was not familiar with? And what would be the effect of re-reading a text if some new words were acquired at each reading? We could also consider what might happen if we examined the development of bilingual networks built up from reading parallel versions of the same text in two different languages.

This is just a short list of questions which immediately spring to mind when we start to probe the data provided in Figs. 3, 6 and 7. It clearly indicates just how rich these data are, and how they force us to think about text structure in a way which is very different from more traditional approaches to text.

However, the power of this approach is not just limited to formal questions about the way clustering works in practice. These data also made me think hard about some of the assumptions we typically make in vocabulary acquisition research, particularly in studies which focus on incidental vocabulary acquisition through reading. Research of this type makes up a very large proportion of current research in vocabulary acquisition, and papers dealing with this topic are some of the most

highly cited papers in the field—Google Scholar lists hundreds of articles with the words *incidental* and *vocabulary* in their titles, and many of these texts, e.g., Laufer and Hulstijn ([2001](#)), are cited hundreds of times. A frequently occurring question in this literature is: *how many exposures are required for an unknown word to be acquired from reading a text?* In a typical study, learners read a text containing unknown words that occur once, twice, three times and so on, and at the end of this extended reading, they are tested for uptake of the unknown words. The claim being tested is generally of the form that more frequent exposure leans to better uptake, and the results typically lead authors to make assertions such as: *words which appear x times are better learned than words appearing fewer than x times* or, more radically: *learners need a minimum of x exposures to acquire new words reliably*.

The network analysis of text presented here suggests that claims outlined in the previous paragraph might place too much emphasis on the linear structure of a text. If clustering is an intrinsic effect of reading, then we would want to come up with a much richer account of how words are acquired through reading. Such an account might look like something like this:

> *Learning words is a probabilistic process. There is an x % chance that you will learn a word on the next occasion that you meet it. Some words will be learned quickly, some will take more exposures.*
> *However, x may vary, and might not be the same for every word. In particular:*
> *Words that fit into existing clusters are more likely to be learned than words that don't.*
> *Words at the core of a network are more likely to be learned than words at the edges. Vice versa for attrition.*
> *And in general, the cluster structures that words are embedded in play a major part in whether a newly encountered word is "acquired" or not.*

Clearly, this approach to incidental vocabulary acquisition is much richer—and to my mind much more plausible—than one which depends on raw frequency measures alone. I hope that this exploratory paper will encourage some readers to explore incidental vocabulary acquisition from this very different perspective.

4   Conclusions

This paper has presented a very preliminary study in which the lexical structure of two short texts has been explored using a co-citation approach borrowed from bibliometrics. In this paper, the co-occurrence of words in sentences was used as raw data from which we generated maps of the lexical structure of the texts. These maps were much more complex than the maps of texts typically discussed in applied linguistics. A critical feature of the maps is the emergence of clusters of words which share semantic, syntactic and phraseological features. I suggested that clustering may be a fundamental characteristic of words in texts, and suggested that clustering effects may play an important role in vocabulary acquisition.

Obviously, the analysis presented here is not as deep as it might have been, but I hope that this brief methodological excursion will encourage others to use this

approach to study clustering in texts, and to consider how clustering might underpin the acquisition of words both in an L1 and an L2.

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Applying Corpus Linguistics and Conversation Analysis in the Investigation of Small Group Teaching in Higher Education

Steve Walsh

Abstract In this paper, I consider how a combined corpus linguistics and conversation analysis methodology can reveal new insights into the relationship between interaction patterns, language use, and learning. The context of the paper is higher education small group teaching sessions and data are drawn from a one million word corpus, the Limerick-Belfast Corpus of Academic Spoken English (LI-BEL CASE. In this study, the analysis is based on 500,000 words of the corpus). The methodology combines corpus linguistics (CL) and applied conversation analysis (CA), enabling quantitative findings to be elaborated by more close-up qualitative analysis of sequences of interaction. This CLCA approach offers a fuller, richer description of small group teaching talk than would be found using either CA or CL alone. I suggest that awareness among practitioners of these relationships would help facilitate interactions which are more conducive to learning and in which students feel more engaged and involved.

1 Introduction

From an epistemological and ontological perspective, CA and CL have very different origins and research foci. CA takes as its starting point turn-taking and looks at how interactants establish and maintain sequential order. By using a detailed, microscopic approach to spoken interaction, CA sets out to explain how interactants co-construct meanings, repair breakdowns and orient to each other. Data are naturally occurring and the aim of the analyst is to show what 'really happened' by asking the question 'why here, why now?' in relation to sequences of turns-at-talk and by using a very small data-set. The ensuing rich, detailed and up-close commentary focuses on key features of the interaction which provide vital clues as to what is happening: these include pauses, overlapping speech, latched turns, 'smiley voice', laughter tokens, and so on (Heritage, 2004). CL, on the other hand, draws

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upon naturally occurring data, but offers a very different type of analysis. Here, the aim of the analyst is to examine specific linguistics features of the data in terms of word frequency, concordances, multi-word units and keyness. Put simply, the analysis is highly quantitative, uses a large sample of data and sets out to describe patterns and key linguistic features. The main focus is at the level of word or word patterns. CL allows for the (rapid) quantification of recurring linguistic features, which can be examined in their immediate linguistic contexts. Software programs enable analysis which is accurate and consistent, fast and without human bias (see, for example, O'Keeffe & McCarthy, 2010).

On closer examination, however, we can see that both CA and CL have much in common. They both use a corpus of empirical, naturally occurring data and refer to baseline comparisons with other types of interactions (sequential order in the case of CA, reference corpora in CL). They both look at language in context; an understanding of context lies at the heart of both approaches to analysis. For CA, the 'language' under investigation is social interaction, while for CL, 'language' often means words or word clusters. Yet both approaches use language which is context specific. Similarly, for both CA and CL, turn level analysis is crucial to enhancing understandings. It is at this level that the most revealing insights can be found—a point I will come back to later in the article.

By way of illustration of the viability of a conjoint approach to the analysis of spoken discourse, Corpus Linguistics (CL) and Conversation Analysis (CA) are used in the investigation of a set of recordings which had been transcribed to form a *principled* collection, or corpus: the Limerick Belfast Corpus of Academic Spoken English (hereafter LI-BEL). This corpus currently comprises almost one million words of recorded lectures, small group seminars and tutorials, laboratories and presentations. However, following on from previous research (see, for example, Walsh, 2006; Walsh & O'Keeffe, 2007), in this study, the focus was on looking at discourse in the context of longer stretches of text. To do this, I needed to combine CL with another approach since CL was unable to account for some of the features of spoken interaction which occurred at the 'higher levels' of utterance and turn (e.g., adjacency pairs). In order to conduct a detailed analysis at this level of the discourse, conversation analysis (CA) was used, an established and respected approach to providing detailed, micro-analytic descriptions of spoken interaction. This combined approach, using both CL and CA (henceforth, CLCA), I suggest, gives a more 'up-close' description of spoken interactions in context (in this case, an educational setting) than could be gained by using either one on its own. From the analysis, we can gain powerful insights into the ways in which interactants establish understandings and observe how words, utterances and text combine in the co-construction of meaning.

Increasingly, CL is being applied to contexts and domains outside of the study of language itself where the *use* of language is the focus of empirical study in a given context. Such contexts include courtrooms and forensic linguistics (Cotterill, 2010), the workplace (Koester, 2006), the classroom and educational contexts (O'Keeffe & Farr, 2003; Walsh & O'Keeffe, 2007), political discourse (Ädel, 2010), advertising and the media (O'Keeffe, 2006), among other areas. In all of these cases, CL is used

alongside another complementary approach, including CA, discourse analysis and pragmatics. The use of CL with other complementary research methods is regarded as a definite strength in research design, and something which should be given further consideration in future CL-based research projects. It has to be stressed that none of the above studies could have achieved the same insights without CL in addition to another approach. In all of these studies, and in the present one, CL is *applied* to achieve a particular goal rather than used to *describe* the language features of a corpus. It is important to note here that two different types of corpus research may be used:

(1) *descriptive corpus research*: the corpus as an end in itself. The researcher looks 'into' the corpus so as to scrutinise the use of language and further our description of language patterns in a particular genre. An example of this type of research is Bednarek (2006). This is a corpus study of evaluation in a corpus of newspapers. It tells us a lot about patterns of evaluation across and within the genre but it is not concerned with issues in a broader context of newspaper discourse, such as power, ideology, identity, and so on.

(2) *applied corpus research*: the corpus as a means to an end. The researcher looks beyond the corpus for both its research questions and its analysis. The corpus is a powerful methodological tool which leads to greater depth of analysis in combination with another theoretical framework. An example of this is O'Halloran (2010), where a corpus of newspaper articles about immigrants is analysed within the framework of Critical Discourse Analysis and the result is an in-depth analysis of the links between the use of language patterns and ideology.

In this study, it would have been possible to take a descriptive approach to the data and, by comparison with other corpora, come to a description of the language of small group interactions in Higher Education settings. This in itself would be a valuable exercise, but the aim in this study is to address broader issues of interaction in these settings and so a complementary framework (using both CL and CA) is utilised in order to understand the patterns of language used. I refer to this as a CLCA approach.

2   Context

The focus of this study is small group teaching (henceforth SGT) in higher education contexts. SGT, such as seminars and tutorials, is used to support lectures by allowing tutors and students to engage in discussion and debate. While small group teaching is generally highly valued by both staff and students, there are some sources of dissatisfaction, with departments identifying problems relating to student engagement and tutor skills and a lack of time (see, for example, Bennet, Howe, & Truswell, 2002). In the present study, I was interested in identifying some of the reasons for students' apparent dissatisfaction and for a lack of engagement,

especially in relation to tutor skills in managing the interaction, their 'interactional competence' (see Walsh, 2006).

From the perspective of corpus linguistics, much influential work on spoken interaction in higher education is based on the Michigan Corpus of Academic Spoken English or MICASE. This corpus comprises data from across a range of speech events in higher education. It includes contexts relevant to the study reported here, such as classroom discussions, seminars, lab work and advising sessions. Studies based on the MICASE corpus have explored a wide range of phenomena in academic spoken interaction, such as metadiscourse in lectures, the use of conditionals, and, of more direct relevance to this study, the effect of class size on lecture discourse (Lee, 2009).

Outside corpus linguistics, there is quite a long history of research into spoken interaction in higher education. Some of this research has taken as its main focus spoken interaction in SGT situations and has used CA as a research methodology. More recent research on talk-in-interaction in SGT in higher education has uncovered important aspects of the processes or 'machinery' by which seminars and tutorials 'get done', for example, by focusing on cues and signals used to manage interaction and participant roles (Viechnicki, 1997), sequential organisation and negotiation of meaning (Basturkmen, 2002), and the issue of 'topicality' in small group discussion (Stokoe, 2000; Gibson, Hall, & Callery, 2006). Other research has explored the formulation and uptake of tasks and resistance to 'academic' identities (Benwell & Stokoe, 2002).

Much of the more recent work on talk in SGT (particularly that of Benwell and Stokoe) draws on perspectives from ethnomethodology, conversation analysis and discursive psychology. In these perspectives, human social activity such as small group seminars or tutorials, are seen as locally produced accomplishments in which participants display their own understandings of the unfolding context. Participants take actions to further their own goals and agendas and display their orientations to others' actions. In SGT contexts, tutors will demonstrably orient to the accomplishment of pedagogical goals and tasks, and students may accept or resist these actions (Benwell & Stokoe, 2002).

In the present study, the focus was on the ways in which tutors and students manage the complex relationship between pedagogic goals and the talk used to realise them. In SGT settings, as in most educational contexts, there is a strong relationship between pedagogic goals and pedagogic actions and the language used to achieve them (Seedhouse, 2004). Understanding this relationship, and the ways in which tutors and students engage in tightly organised and intricate negotiations of a set of pedagogic agendas, lies at the heart of any enterprise which sets out to improve teaching and learning in higher education. I adopt the strong position taken by others that interaction and learning are inextricably linked. Any attempt to enhance learning in SGT should, therefore, begin by gaining a closer understanding of the interactions taking place. By using a combination of CL and CA, we are able to provide a more realistic description of the relationship between pedagogic actions and the language used to achieve those actions in classroom discourse (Walsh, 2013), thus offering a greater understanding of the finer interactional adjustments

and variations which exist in SGT interaction. We can then use these insights as a means to the end of addressing the problem identified above, that of the relationship between student engagement and tutor interactional skills in SGT in one higher education context.

3 Data and Analysis

The study is based on data from the Limerick Belfast Corpus of Academic Spoken English (hereafter LI-BEL), which comprises 500,000 words of recorded lectures, small group seminars and tutorials, laboratory practicals and presentations. These data were collected in two universities on the island of Ireland: Limerick and Belfast, across common disciplinary sites within the participating universities: Arts and Humanities, Social Sciences, Science, Engineering and Informatics and Business. From the main corpus, a sub-corpus of 50,000 was created by identifying all the instances of SGT, defined as sessions comprising between 15 and 25 students and where there was evidence of sustained interaction. It is perhaps significant that only 50,000 words were identified (or 10 % of the corpus) in which there was evidence of extended interactions. This, in itself, is indicative of the current state-of-play of SGT in the two universities under investigation; it is apparent that tutorials and seminars are functioning more as extensions of lectures than offering opportunities for engagement and sustained debate.

Using *WordSmith Tools* (Scott, 2004) key words and word frequency lists for both single words and multi-word units were generated. The one-million word Limerick Corpus of Irish English (LCIE) was used as a reference corpus (Farr, Murphy, & O'Keeffe, 2002). Table 1 illustrates the top 20 key words.

Through concordance and source text analysis via WordSmith differences in the functioning of these higher frequency words was brought into relief. For example, the word *if,* when used in 'first conditional' type structures, had three main functions:

Table 1 Top 20 key words from LI-BEL sub-corpus

1	okay	11	Any
2	ye	12	Exactly
3	alright	13	Different
4	you	14	Include
5	et cetera	15	If
6	so	16	This
7	that	17	Can
8	what	18	About
9	of	19	Next
10	your	20	Literally
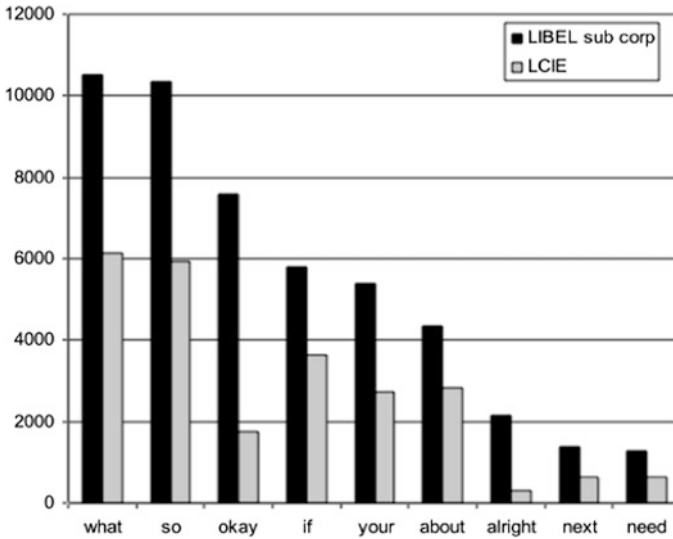
Fig. 1 Single word frequencies in LI-BEL sub-corpus and LCIE

- pedagogic illustration of 'general truths/facts' *if John Kerry takes Texas*, …*he takes every vote*…;
- projecting, 'meaning when you find yourself in this situation' *if you are on TP and you have a class that*…;
- demonstrating, *if you click the mouse and then click*…

Figure 1 illustrates the most salient items when we looked at the LI-BEL sub-corpus frequencies using LCIE as a baseline for comparison. As Fig. 1 illustrates, nine single-word items were found to be significantly different in frequency when compared to the reference corpus. Some of these are context-specific, for example, the prevalence of the interrogative pronoun *what*, discourse markers *so*, *okay*, *alright*, deictic *next* (as in *next week*, *next semester*, *next lecture*), modality (*what I need you to do, you need to,* etc.), and so on. Even at the word level the corpus data was pointing to the significance of such actions as eliciting information, signposting the discourse, locating learning and teaching in time and directing learners to perform certain actions and carry out tasks.

Having scoped out the word frequencies and word patterns related to these, the next level of analysis was multi-word units. More than 128 multi word units (MWUs) were identified and these further illuminated the earlier results for key word and the single word frequencies. This resulted in the emergence of clear categories into which the words and their patterns could be divided. Like the single word items referred to above, the MWUs which prove statistically salient in this context have the broad function of marking the discourse. They signpost, manage, demonstrate, sequence, set up activities/groups and mark out shared and new knowledge (Carter & Fung, 2007), as Table 2 illustrates.

Table 2 Broad functional categorisation of significant multi-word units in LI-BEL sub-corpus

Category	Examples
Elicitation from individuals and groups	*any ideas of how you could, do you have any idea, do you think that would, did anyone else come up with, did ye come up with anything, any ideas of how, anyone have any idea, anything else to add, do you have any, do you think, give me an example of,*
Feedback on elicitations	*amm okay so, okay so, very good, a very good point, yeah yeah yeah,*
Managing tasks and activities	*do you think you could, I want ye to, I want you to, you're going to, we're going to talk about what did your group have? anything else? talk to the person next to*
Demonstrating and sequencing	*do ye know how to, I'm going to, and then, what you can do is put, we're going to what we're going to do*
Relating to past or future references within the lecture or course	*do you remember, next week, as I was saying, the next*
Discourse markers of shared space	*you know what I mean, you know the way you, so you know, then you know, like you know, you know that, you know a, you know ah, I mean, I think, I suppose*

Having identified the most frequently occurring words, multi-word units and language functions, the next stage of the analysis was to interrogate the corpus using CA.

The CL analysis clearly identified a number of key linguistic features whose distribution was in some way marked in terms of frequency. In order to gain a deeper understanding of spoken interaction in this context, it was important to see how these statistically salient features actually operated in speakers' turns and in longer sequences of interaction. In the qualitative analysis (see below), the corpus was examined using CA, building 'collections' of similar instances of stretches of interaction where there was both a clustering of the linguistic features identified in the corpus analysis in addition to specific patterns of sequential organisation.

The CL analysis, therefore, had helped identify longer stretches of discourse which were marked in some way, indicating particularly high frequencies of usage or high levels of 'keyness'. The CA analysis highlighted a number of specific interactional features of the discourse which were considered alongside the linguistic features previously identified in the CL analysis. Using CA alongside the findings from the CL analysis enabled a focus on the ways in which linguistic and interactional features come into play and how both sets of features collectively contribute towards co-constructed meaning. In short, this dual analysis revealed patterns and relationships between tutors' and learners' language use which each methodology on its own would be unable to uncover.
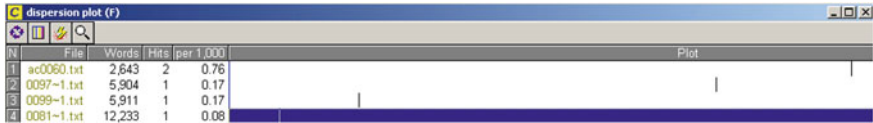
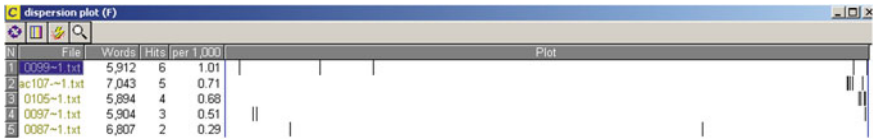**Fig. 2** Sample dispersion plot graph of 'last week' in LI-BEL sub-corpus

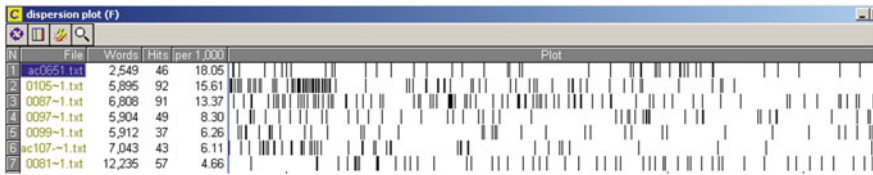**Fig. 3** Sample dispersion plot graph of 'next week' in LI-BEL sub-corpus

Fig. 4 Sample dispersion plot graph of 'okay' in LI-BEL sub-corpus

By way of example, compare the sample plot graphs for the high frequency items, *last week*, *next week* and *okay* in the data. These show whether these items cluster at certain points and in which files (i.e., which interactions/classes). References to *last week* and *next week* prevail at the beginning and end of inter- actions whereas *okay* is more dense at the beginning of interactions but is used throughout as well, with 'clusterings' around certain phases of a seminar or tutorial (Figs. 2, 3 and 4).

The dialectic between CA and CL thus allowed a better understanding of why certain items were clustering at certain points. In the next part of the analysis, I present the most salient contexts in which high frequency items clustered. For the sake of convenience, each context is labelled according to its predominant peda- gogic function.

3.1 Organisational Talk

Much of what goes on in SGT entails tutors organising learning in some way, often temporally or spatially. Here, tutors' pedagogic goals are to inform students about

different procedural matters (the date and time of an examination, the materials to bring to the next session, and so on). Consider extract 1 below, where the tutor makes frequent reference to time (*the next day*, *week nine*, and so on). The prime purpose here is to alert students to upcoming tasks and activities, and to the overall organisation of modules and courses. Note too the use of *okay* at the end of this sequence as a marker of a transition to the next stage of the SGT session. *okay* was the third most statistically 'key' lexical item in the corpus, occurring very frequently in stretches of organisational talk.

Extract 1

```
1    T:   I'll talk to ye about those the next day (.) that's

2         week nine (.) this is only week two isn't it? so amm

3         we're okay with regards to that (.) you see now amm

4         okay
```

The interactional organisation of 'organisational talk' is characterised by long turns by one participant (normally the tutor), while the other participants produce short responses or no responses at all. It is here that the tutor may use discourse markers such as 'okay?' to check understanding, but often will not wait for a verbal response (presumably relying on visual information to monitor the state of comprehension of the other participants). In the data, it was very obvious that the tutor may also perform the role of both questioner and answerer, as evidenced below in extract 2, where the tutor produces both the first and second-pair parts of a question, with no pause between them to indicate a turn transition relevance place, showing that no response is expected:

Extract 2

```
1    T:   so if I told you I wanted horizontal lines in that

2         first box (.) what would your first thing to do be

3         (.) well would you kind of come in here like this and

4         go like that? no you wouldn't because free hand you

5         don't need to have the sheet attached fully to the

6         desk
```

3.2   Instructional Talk

Much of the interaction of SGT was found to be reminiscent of more traditional classroom discourse, dominated by display questions, IRF (Initiation by teacher, Response by learner, Feedback by teacher) exchanges, short utterances from students, and so on. In what is labelled 'instructional talk, the discourse is highly controlled, with the main responsibility for managing the interaction firmly in the hands of the tutor. Turn-taking is tightly controlled by the tutor, who manages both next turn allocation and questions addressed to individual participants, thus making the respondee's provision of the second pair-part strongly relevant. In terms of corresponding linguistic features, the most obvious example is found in concordance searches of the pattern *tell me* (Fig. 5). Another example is *I want you/ye to* (Fig. 6).

Consider extract 3 below, which comes from a teacher education seminar, and which makes extensive use of the MWUs found in the corpus and used for eliciting information (as in lines 7, 9–10, 12):

```
 class what would you tell me your aims might be?

  that's it. Can anyone tell me what type of type of objective that is. Students will be

        . I want you to tell me come back to me and tell me do you think there's

ns. And ahh can anybody tell me why that's not the case? Why is it that you know there

. Fine out. And can you tell me what type of an objective that is? They're labelling a

ot     . I want you to tell me come back to me and tell me do you think there's anythin

the groups saying right tell me what your list is tell me what your list and that's your

the groups saying right tell me what your list is tell me what your list and that's your

                    So tell me what ye'd put down instead so? If you were talking about

he sense of?      . And tell me have you any ideas of how you could possibly include

self I've now told you. Tell me anyone again how could you change that objective to mak
```

Fig. 5   Extracts from concordance lines of 'tell me'

```
 right then over here what I want you to do is take any line in the middle make a wavy line like

single group in the class. I want ye to look at that lesson plan and I want you to critique under o

minutes. I've got     . I want you to tell me come back to me and tell me do you think there's

izontal like this. So what I want you to practice is roughly around maybe five eight mils apart.

with your setsquares. What I want you to do is do a bit of printing in there. Lovely lovely plan

in    your  pairs  again  I want you to look at this lesson plan. First of all I want you to   an

and in your pairs again I want you to look at this lesson plan. First of all I want you to sson plan

okay? Number two I want you to decide amm would you be happy if I told you in the next e you okay

for two minutes I want you to discuss that in the sense of is there anything missing
```

**Fig. 6**   Concordance extracts of the pattern 'I want you to'

Extract 3

```
1    T:    say now it's we'll give a a topic example again

2          (.)ahh let me see what would you be doing at all? the

3          same genetics again we'll go back to that (.) amm (.)

4          you're teaching your fifth year class genetics and

5          you say pupils should in will be enabled to?

6    S:    (find out?)

7    T:    perfect find out (.) and can you tell me what type of

8          an objective that is? they're labelling a diagram (.)

9          what type of an objective is that? anyone have any

10         idea? remember I was telling you that there's three

11         types of objectives (.) what type of objective is

12         that? can anyone name any one of the three? oh this

13         is fun at nine isn't it? kind of you know twenty

14         questions
```

This extract shows one other typical feature of this context, an IRF exchange in lines 5–7, with a cued elicitation used in the initiation move. The use of 'perfect' (line 7) is an example of evaluative feedback, typical of the follow-up move in the IRF exchange. In fact, it is telling for the ubiquity of this exchange that the statistically salient or 'key' lexical items with the function of giving feedback on elicitations were typically found in this position. The tutor's long turn (lines 7–14) consists almost entirely of elicitation, to the extent that this provokes a meta-comment on the discourse in lines 13 and 14.

3.3 Discursive Talk

One of the most important indicators of success in any educational discourse, arguably, is a tutor's ability to create shared space where learning can take place. This is particularly true in a higher education context, where students must feel able and willing to participate and contribute to the discussion. In this study, the focus was on the ways in which tutors, through their choice of linguistic and interactional features, created 'space for learning': interactional space in which students could
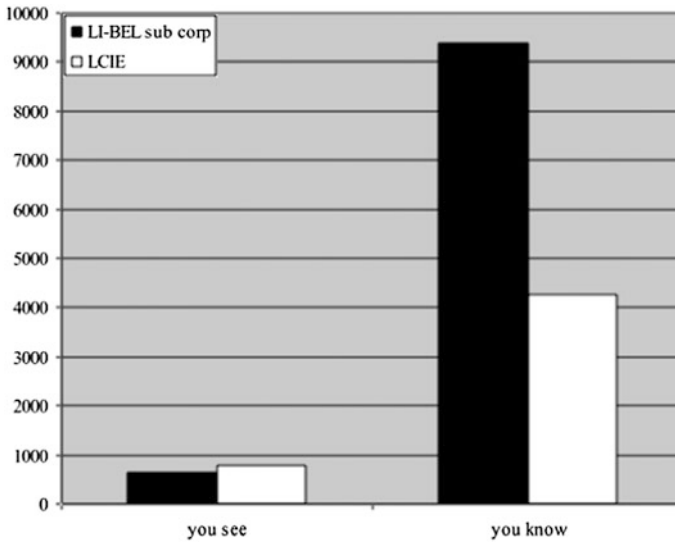
Fig. 7 Comparison of 'you see' and 'you know' in LI-BEL sub corpus and LCIE (normalised results)

become involved, engaged, and willing to take risks in the discussion. The quantitative analysis showed quite clearly that 'discourse markers of shared space' occurred frequently in this context, labelled here 'discursive talk'. By discursive talk, I mean instances where students produce accounts of experiences that they are having as part of the course, often accompanying these accounts with assessments of situations and behaviour. The tutor accepts and builds on these accounts, converting them into pedagogical material in the form of reflective statements about appropriate behaviour, roles and identities in the professional practice of the discipline. Agreement to assessments is favoured (there is a lack of dispreferred responses) and there is frequent use of interpersonal discourse markers to provide supportive responses to the speaker (*yeah*) and to mark shared knowledge (*you know*; *you see*).

Using a CL analysis reveals telling differences as illustrated in Fig. 3 in the comparison of *you see* and *you know* (Fig. 7).

You see usually marks new information while *you know* generally marks shared information. It is revealing in a corpus recorded in higher education classrooms that we find an exceptional number *you knows* (marking shared information) but we find more or less the same amount of *you see*s (marking new information). The priority to build on and appeal to shared knowledge and 'shared space' is central to both the pedagogic and interactional process.

The interactional features of this kind of talk show that there is considerable symmetry; tutor and students adopt almost equal roles and it may not be immediately obvious who the tutor is. Typically, turns are evenly distributed and often managed by students themselves, in a way which closely resembles everyday conversation. Tutors may initiate exchanges as a form of open invitation to produce accounts of experience, as in extract 4, taken from a film studies seminar.

Extract 4

1	T:	how are you getting on with your other ahh module (.)
2		ahh the the the filming one
3	S3:	we're filming a scene at the moment we're editing and
4		it's crazy
5	T:	yeah you see it is crazy isn't it (.) this week now
6		is going to be unbelievable
7	S3:	it's just music and we're just putting it together
8		you see now (.) you know you've all the footage but
9		you're there trying
10	S?:	( )
11	S3	we have so much footage and it's just like you some
12		people have to accept that some of it
13	S?	( )
14	T:	yeah well it's like essays isn't it (.) I mean you
15		can't write from the middle you know=
16	S4	=that was my idea so we can't lose that and you're
17		like going=
18	T:	=who who's the director?
19	S3	I wish I was the director
20	S2	in our in my group John C is
21	T:	okay yeah you see that's the thing like you know I
22		mean like really it does all come down to the
23		director and the people should respect that
24		immediately you know (.) that doesn't happen that
25		often (.) you know what I mean it can get the roles
26		can get dispersed

The overall tone of this interaction is conversational. In response to the teacher's opening turn, one student (S3) produces an account of a group's experiences of making a film, including an assessment of the situation (it's crazy), to which the tutor offers a preferred (agreeing) response with the discourse marker 'yeah' and the repetition of the assessment, before building on this to project what experiences will be like in the future. It seems apparent that participants can express feelings such as frustration with aspects of the course, or in the case above, with other students' behaviour. In lines 11 and 12, S3 indicates that 'some people' may have problems in

accepting that material has to be cut, and in line 19, seems to be expressing frustration either about the existing director, or the lack of a director's role in the group.

The role of the tutor here is to 'take a back seat', listen to what students contribute, take their experiences and feelings and build on them, and so on. The pedagogic goal is to reinforce appropriate behaviours and identities, especially in a context where professional practice is important, as in the one above. However, there may be a tension between the establishment of a more 'equal' turn-taking system, with the freedom to express feelings, and the need for tutors to convert this into pedagogically useable material. This can be seen in the tutor's last turn in the extract (lines 21–26), in which 'okay' marks a switch in orientation, and the content about appropriate roles and behaviours is prefaced with a lengthy string of hedges, indicating pragmatic work in switching roles from an empathic listener to a 'reflexive judge' (Baumgart, 1976). This tutor does quite a lot of interactional work in order to change footing ('okay yeah you see that's the thing like you know I mean like really'); his stance after this preface is that of teacher again, giving instruction and passing on new knowledge. The interactional work is apparently needed in order to change from equal interactant to tutor, to move from a position of role symmetry to one of role asymmetry.

3.4   Argumentative Talk

A key aim of higher education is to foster criticality and promote individualised thinking. Most tutors would be delighted if students would engage with their discipline, discuss, debate and argue about new concepts, challenge existing principles and offer new ideas of their own. Unfortunately, all too often, this does not occur and students resort to being passive recipients, apparently uninterested and only motivated by information which well help them pass the course or succeed in an assignment. In the present study, there were instances of what we are calling 'argumentative talk' where there was some kind of discussion or debate, even argument.

Typically, and based on the quantitative CL analysis, argumentative talk occurred most frequently when there was a preponderance of discourse markers of shared space. Accompanying these discourse markers, there was heavy use of frequent examples of negation or adversative items such as 'but', as exemplified in Fig. 8.

From an interactional perspective, contexts in which argumentative talk could be found were characterized by a symmetrical speech exchange system, with 'give and take' in the interaction as tutor and students collaboratively negotiate meanings and co-construct understandings. There can be quite rapid exchanges of assertions, with frequent occurrence of dispreferred options such as straight rebuttals, and there is a high frequency of latched turns and a relative lack of pauses at transition relevance places. Extract 5, which is from a politics seminar, is a clear example of argumentative talk in action:

```
hurling and     laughing       you know. But this is it. This is our oral tradition.
        settle on that.        Exactly amm but what about like I totally agree with that

 symbol of ahh well regression I suppose. But what did happen in Limerick was the amm

aying about his intro= or you know        but your not allowed say that. What's your

         That's a problem.        Yeah no but you'll know this it's it's the      . It

at they have it kind of      . Yeah okay. But you're saying that maybe that they okay so

            understand them at all. Okay? But a sense of territory is there. Okay?

        because that was my fault. Okay? But the next all the rest of the classes do ut

   and then you come back and        right but you're wrong     . What do you think?
```

Fig. 8 Sample concordance lines of 'but' preceded by a discourse marker in argumentative contexts

Extract 5

```
1    S5    are we are we defining (.) ethnicity or nationalism

2    T     they're blurring (.) for the purposes of this class

3          they're blurred (.) oh no they're not amm (.) no

4          we're ethnicity is what we're doing=

5     S5   =but it's it's very close to nationalism when I see

6          territory people and and its its ((unintelligible))

7          you have a nation (.) ahh it's one of the=

8    T     =not for the people who claim they're ethnically

9          different but a people within the nation=

10   S5    =yeah I suppose=

11   T     =and that that's kind of the point is that (.) yes

12         you'd you'd think on the outer we'd have a nation but

13         if it worked out like that well then we wouldn't have

14         ethnic conflict (.) do you get my point (.) okay so

15         (.)any anybody else think there's anything else there

16         that should be up there
```

Extract 5 opens with an apparent challenge from S5 (are we are we defining (.) ethnicity or nationalism) followed by an uncertain response from the tutor (lines 2–4). Note the frequent use of pausing (.) which may indicate hesitation or uncertainty. In line 5, the same student appears to be dissatisfied with the tutor's previous response and interrupts (indicated=) with a further challenge. S5 also appears to show some uncertainty in line 8 (a pause (.) followed by *aggh*), allowing the tutor

an opportunity to interrupt again in line 11. The tutor succeeds in holding the floor from lines 11–16 and, despite some obvious transition relevance places (marked (.)), nobody challenges his explanation further. Indeed, he even closes down space in 14 (*do you get my point (.) okay*). The discourse marker 'okay' here seems to show a degree of finality to the discussion, pointing to a transition in this stage of the seminar and a time to move on.

The pedagogic orientation appears to be towards an open and dialogic exploration of disciplinary knowledge, similar to Mercer's (2000) 'exploratory talk'. However, this micro-context actually shows characteristics of 'disputational talk' (Mercer, 2000) in which participants, rather than interacting to build knowledge together, dispute each other's meanings in ways which may not move the discussion forward.

4   Discussion

In terms of the main findings within the study, several implications can be identified. First, there is a need for further research to consider more carefully the relationship between language use, interaction and learning in SGT sessions. At present, we only have a partial understanding of the complex relationships between language, pedagogy, interaction, learning and knowledge. The linguistic and interactional features identified in this study, we suggest, perform a central role in co-constructing meaning, in promoting criticality and in engaging learners in academic debate. There is more work needed to promote an understanding of the ways in which these features assist in the creation of space for learning.

Second, I would argue that there is a need for tutors to develop greater interactional competence in order to facilitate the kind of 'whole class interactive teaching' such as that currently being advocated in the national literacy strategy in secondary classrooms. Classroom interactional competence (Walsh, 2013) refers to the specific interactional strategies that tutors use to help learners express new ideas, discuss key concepts, question accepted knowledge, and articulate emerging understandings. By helping tutors gain greater interactional competence, the overall quality of learning can be enhanced, both in terms of depth and breadth.

Third, there is a need to look more closely at ways of including and involving students more fully in the discourse of SGT sessions, raising students' interactional competence and facilitating a more interactive, engaging learning environment. Much can be done to improve the learning experience of students by helping them to consider how they can become better interactants, more able to articulate complex ideas or take a particular stance in relation to an idea, concept or theory.

Finally, further research is needed to evaluate and assess the extent to which the micro-contexts identified in this study stand up to closer scrutiny when extended to other contexts in which SGT takes place. This study was carried out in one national

context (Ireland) using a relatively small corpus. Further studies using larger corpora across a range of contexts in higher education would be likely to reveal the robustness of the framework for understanding interaction in these contexts.

5   Conclusion

In terms of the overarching focus of this paper, namely the proposition that CL and CA are suitable bedfellows, I set out to demonstrate not only how they can be mutually beneficial, but how they can actually synergize. Through an over and back process, a methodological dialectic, I was able to identify and verify four distinct micro-contexts which emerged through a combination of the tutors' and students' orientations to certain pedagogic goals, and the speech exchange systems set up to produce this knowledge as an interactional accomplishment between them. Implicated in, and indexical of, these micro-contexts, is the use of high frequency items in the corpus at particular points in the interactions. Had CL been used on its own, an interesting list of high frequency items and their functions would have been identified with no corresponding depth of analysis such as that offered by CA. Similarly, looking at the data purely from a CA perspective may have established the four micro-contexts, but the finding that these were actually high frequency items (i.e., key words, high frequency words and multi-word units) would have been overlooked. In addition, by drawing on quantitative methods within CL, it was possible to reference findings against another dataset. All in all, therefore, it seems safe to assert that CL and CA are 'well met'. By way of final reflection on what CL can gain from CA, the narrowness of CA transcription could be accommodated more into the transcription of spoken corpora; similarly, using recordings with transcripts is something which will hopefully become more a reality as the next generation of spoken corpora emerge.

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Language Teachers Working with Text: Increasing Target Language Awareness of Student Teachers with Do-It-Yourself Corpus Research

Jarosław Krajka

Abstract With language awareness already established as a key concept in language learner and teacher education, ways need to be found to foster language awareness of prospective teachers. It goes without saying that without teacher autonomy and control over the foreign language it is impossible to effectively develop learner autonomy. The present paper reports a study investigating the viability of teacher corpus self-compilation and quiz authoring as a vehicle for developing their target language awareness. In particular, detailed discussions of instructional procedure and learning environments can be found in the article. The study shows how student teachers are trained to work with texts: finding, evaluating, selecting, compiling into a corpus, and analysing and extracting examples into a quiz authoring tool.

1 Introduction

The aim of the paper is to see whether the notion of language awareness can be enhanced in the reality of foreign language teacher education by the implementation of Data-Driven Learning and corpus linguistics. The paper commences with a brief overview of the very notion of language awareness (LA), offering a survey of definitions and signal concepts which are related to it. It then reports on the results of a study aimed at introducing students of English language and literature to the procedures of Data-Driven Learning in the following steps: exposure to ready-made corpora, consultations of ready-made corpora, compilation of personal corpora, consultation of personal corpora, extraction of key linguistic features from personal corpora, and inclusion of key linguistic features in self-study interactive quizzes. It is hoped that the present paper will demonstrate that despite various attempts at burying the notion (for instance, Bialystok [1994], p. 163 calls "consciousness […] [an] issue that refuses to die"), LA is still alive and contributing to the field of

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applied linguistics. At the same time, we attempt to show how language teachers can be empowered by gaining control over authentic texts for subsequent in-class materials development.

2 Background

2.1 Defining 'Language Awareness'

'Language awareness' (LA) is often treated as an umbrella term which subsumes the following distinctions in FL learning and teaching: implicit versus explicit instruction; consciousness versus unconsciousness in FL teaching; incidental versus intentional learning; controlled versus automatic processing. When investigating the role of consciousness in FL learning and teaching, one can identify three clusters of beliefs: one saying that consciousness is an important component of the process, another claiming that only unconsciousness is valid, and a third position inviting one to evade the distinction altogether (cf. Table 1).

In an attempt to trace the application of the notion of 'consciousness' for the field of L2 learning, Schmidt (1994, pp. 15–21) offers an analysis of the construct from the perspective of four sub-notions, which, he claims, are more readily operationalizable than consciousness itself. He distinguishes 'consciousness as intentionality', 'consciousness as attention', 'consciousness as control', and 'consciousness as awareness' (cf. also Schmidt, 1995).

One of the early definitions of LA, one which certainly has school application in mind, offered by the founder of the British Language Awareness Movement, Hawkins (1981), sees LA as a "bridging subject between Mother Tongue study and

Table 1 Three stances on the role of consciousness/unconsciousness in FL learning and teaching (adapted from Schmidt, 1990)

Consciousness is significant	Unconsciousness only	Avoid the distinction
• Bialystok's (1978) model allows for conscious accrual of knowledge • Rutherford and Sharwood Smith's (1985) Consciousness-Raising facilitates FL learning • Fotos (1993) tracing Consciousness-Raising back to ancient pedagogic tools of studying Latin	• Behaviourism's scepticism towards consciousness • Krashen's (1981, 1982) unconscious acquisition versus conscious learning • Seliger (1983, p. 187) "learning takes place at an unconscious level"	• McLaughlin, Rossman, & McLeod (1983): Krashen's distinction between acquisition versus learning is unsupportable • Odlin (1986, p. 138) "divorce it all from the 'slippery notion of consciousness'" (after Odlin, 1994)

Foreign Language study" (after James, 1996, p. 21).[1] Levelt, Sinclair, and Jarvella (1978, p. 5) state, on the other hand, that LA is "implicit knowledge that has become explicit" (quoted after James, 1996, p. 23), while asserts that it is "focusing attention on something that one knows" (quoted after James, 1996, p. 23). This is a significant trend in defining LA, as it leads to demonstrating that LA work should be implemented in the classroom gradually, when learners are linguistically ready. James (1996) defines language awareness as "possessing METACOGNITIONS about a language over which one already has a degree of control and about which one will therefore have developed a coherent set of intuitions" (James, 1996, p. 23; capitals in the original). Both a certain "degree of control" over the language and a "set of intuitions" can be expected of advanced learners of English, who are the subjects of the current empirical research.

To set a direction in which to develop LA, one may consider the following definition by de Villiers and de Villiers (1972): "[LA is] generally defined as the ability to attend to the forms of language independently of meaning. […] [This ability] has been designated responsible for developing skills such as literacy and certain types of grammatical analysis" (quoted after Bialystok, 1981, pp. 38–9). Finally, a more recent definition given by Możejko (2002) and arising from the Polish teacher training setting is as follows: "language awareness—intuitions about the language that can be verbalized" (Możejko, 2002, p. 48).

2.2 Teacher Language Awareness in the Contemporary English as an International Language Perspective

Bolitho and Tomlinson (1995) say the following aspects of language awareness are essential for student teachers: "[to] talk about English", "to sensitize [language users] to the language", "to develop their own understanding of the language" (Bolitho & Tomlinson, 1995, p. iv). This may become a feasible programme both for teachers and (advanced) FL learners alike, as is expressed further on: "[LA] work seeks to bring to the surface (…) pulling together the descriptions of linguistics, the needs of teachers and the insights of every language user" (Bolitho & Tomlinson, 1995, p. iv). First of all, teachers themselves are to become language analysts.

> [O]nce they have discovered and acknowledged the diversity and complexity of language, teachers will be able to share this with their learners and help them to face the challenge of thinking about language and progressing to be increasingly self-reliant (Bolitho & Tomlinson, 1995, p. iv).

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[1]For an overview of the British Language Awareness Movement, cf. Hawkins (1992) and Piechurska-Kuciel (2005). See also Svalberg (2007) for a state-of-the-art article reviewing 20 years of LA in FL education.

Only then will they be able to turn their learners into independent language discoverers. Thus, LA may be said to promote both learner- and teacher-autonomy (cf. Komorowska, 2011; see also Brumfit, 1991, for a discussion of the place of LA in teacher education). Hence the importance of linguistic investigations—tasks which require student teachers to come up with hypotheses and verify them through a series of well-designed queries using either a ready-made or authored corpus. Without this awareness of the importance of learning a language through posing questions and analysing data to seek answers, teachers are not likely to consciously and successfully promote 'discovery learning' or 'inductive learning' approaches (see Thornbury, 2002, for an explanation of the approaches to learning and teaching grammar).

At this point, the question arises of what components of target language awareness should actually be mastered by student teachers in order to be competent language educators in the current context of English as a Lingua Franca, English as an International Language, World Englishes and the like (see, for instance, McKay, 2002). Generally, three major areas are distinguished in the literature, namely knowledge *of* language (i.e., language proficiency), knowledge *about* language (i.e., declarative knowledge of subject matter) and knowledge of students (especially the cognitive knowledge of learners as it relates to subject matter—Hall, 2011). Especially the first two components, which are strictly related to language description and analysis, require significant attention from non-native speaker (NNS) teachers. Even though NNS teachers make up more than 80 % of the EFL/ESL teaching force worldwide, they have not been generally accepted in English-speaking countries until recently, however well qualified they may be (Hall, 2011). As is claimed by Medgyes (1994), there is still the 'native-speaker fallacy', that the ideal teacher of English is a native speaker while the 'language deficit' of the NNS teacher makes the NNS teacher more or less handicapped in terms of a command of English (Medgyes, 1994). However, if the learning goals relate primarily to English as a Lingua Franca and English as an International Language (see, for instance, Wysocka, 2013), which is often regarded as 'the language without its culture', then any assets the NS teacher of English possesses in terms of native proficiency become largely irrelevant, because effective communication in lingua franca uses of English is not dependent on conforming to NS norms (Rampton, 1990; Hall, 2011).

2.3 Data-Driven Learning in the Process of Raising Student Teachers' Language Awareness

There are numerous studies reporting on the applications of corpus-based procedures in foreign language instruction. These range from the use of small corpora tailored to students' needs (Aston, 1997) to promoting large corpus concordancing (Bernardini, 2000; de Schryver, 2002); improving writing performance at lower

(Gaskell & Cobb, 2004; Yoon & Hirvela, 2004) and advanced levels (Chambers & O'Sullivan, 2004); grammar presentation (Hadley, 2002) and inferring rules (St. John, 2001). An extensive body of research can, quite naturally, be found in the area of vocabulary acquisition (Cobb, 1997, 1998) and teaching foreign language reading. This is to be assisted not only by concordancers themselves, but performed in the wider context of a resource-assisted environment, encompassing for instance concordance, dictionaries, cloze-builders, hypertexts, and databases with the interactive self-quizzing feature (Cobb, Greaves, & Horst, 2001; Horst, Cobb, & Nicolae, 2005; see also *Lextutor's* routines—http://www.lextutor.ca). Some other studies reported on the relation between the effectiveness of corpus-consultation procedures and strategy training (Chambers, 2005; Kennedy & Miceli, 2001; St. John, 2001), indicating the need to reflect on conscious and gradual introduction of the tool in the classroom. The perspective that is most relevant for the purposes of the present paper is represented by the attempt to achieve an increase in writing proficiency due to learner corpus self-compilation (Lee & Swales, 2006).

However, while the apparent benefits of corpus self-compilation and lookup have been widely promoted, the very instructional process, in terms of specific steps and stages which students or student teachers need to be guided through in order to fully acquire the concordancing skills, has not been sufficiently researched. Hence, the focus of the present research is, most of all, the verification of an instructional model aiming at interspersing active and reflective, pedagogy- and technology-oriented activities. The issue of how to integrate varied ICT environments in guiding teachers from learner to teacher use was also addressed in the study.

3 The Study

3.1 Research Questions and Theoretical Assumptions

The present study is of the implementation of do-it-yourself concordancing and multimedia authoring in the process of building language teachers' awareness and skills as they work with text as corpus designers. In particular, it was supposed to find answers to the following research questions:

1. What are the attitudes of student teachers towards corpus compilation and do-it-yourself concordancing?
2. To what extent is the staged instructional model of experiential learning and reflection-on-action applicable in the context of Data-Driven Learning?
3. What concordancing tools (software, online scripts) could be used as viable learning environments?
4. What are the limitations of and obstacles to do-it-yourself concordancing as an instructional procedure?

The major aim of the research was to verify the adopted process of introducing the procedures of corpus linguistics and Data-Driven Learning to student teachers new to the concepts of corpora and concordancing. Given the wide range of learning and teaching styles in the classroom (see, for instance, Felder & Henriques, 1995), it was assumed that a staged instructional model, addressing diverse learning styles in particular stages, might prove useful when building linguistic investigation skills and target language awareness. Thus, the procedure sought to intermingle active experimentation and personal reflection, trying to evoke different dimensions of Kolb's (1984) model.

Apart from Kolb's experiential learning theory and learning style inventory, the theoretical framework for the present study also comprised the notion of contextual confidence in selected ICT tools as developed by Kessler and Plakans (2008). Rather than provide in-depth training, knowledge build-up and programming skills, language teachers should, according to Kessler and Plakans, be trained in narrow domains of ICT use which are well-suited to their pedagogical purposes. This contextual confidence in the reality of do-it-yourself concordancing involves, among other things, the following abilities:

- Students know general and specific principles of Data-Driven Learning.
- Students know about different types of corpora.
- Students know criteria for selection of texts for a personal corpus.
- Students can find and select corpora to fit particular instructional purposes.
- Students can compile texts into a personal language corpus.
- Students know how to use concordancing programs to verify linguistic hypotheses.

Finally, the training procedure was designed according to the concept of 'instructional technology pills' (Krajka, 2012), in which we propose a finite instructional module culminating in a tangible product for in-class use. In case of do-it-yourself concordancing, this closing element proved to be self-study multimedia quizzes authored in the popular *Hot Potatoes* software suite. Adding *Hot Potatoes* authoring on top of the concordancing procedure gave trainees immediate relevance and a link to classroom teaching, which largely contributes to the adoption of new technology.

3.2 Participants and Procedures

The action research study was conducted among 15 graduate students (trainee teachers and translators) in their final year of the MA programme in English at a major private university in Warsaw, Poland. All the participants volunteered to take part in the programme, as the 20-h "Corpora in literary studies, translation and language teaching—from ready-made to teacher-made collections" course was offered as an elective to choose from a larger number of courses.

The research sample comprised a group of 15 students, 13 female and 2 male, 14 of whom belonged to the 20–25 age range, one being 31–35 years of age. What made them different, however, was the specialization followed in the course of the M.A. programme—around a half were finishing a language teaching specialization, while the other half were studying Business English, translation and culture studies programmes. This turned out to present a difficulty for the researcher as it was largely impossible to make references to concepts established in language teaching or language acquisition literature. On the other hand, the heterogeneity of partici-pants in terms of the focus of study was a strength of the research—a greater diversity of student interests was observed, as a result of which student-made corpora and interactive materials were more interesting for others to follow and use.

Throughout the course of the study it was assumed that the participants would be taken through the stages of concordancing, corpus compilation, quiz authoring and meta-reflection. In particular, the instructional model devised for this action research study involved the following phases:

Step 1—active experimentation (teachers as learners)
Placed in the role of 'teachers as learners', participants gained first-hand experience of learning with corpora by doing corpus-based language tasks. At the same time, exposure to selected corpus interfaces made them aware of certain key concepts, functions, sorting methods, associated searches, ways of annotation, and the like. The resources used were official interfaces to such corpora as the *British National Corpus, the Corpus of Contemporary American English, and the Corpus of Global Web-based English* (Fig. 1).

Step 2—personal reflection (teachers as analysts)
Having completed language tasks, teachers were encouraged to take a bird's eye view of the learning experience. They did this by reflecting on the suitability of concordancing procedures and the opportunities and limitations of selected corpora,
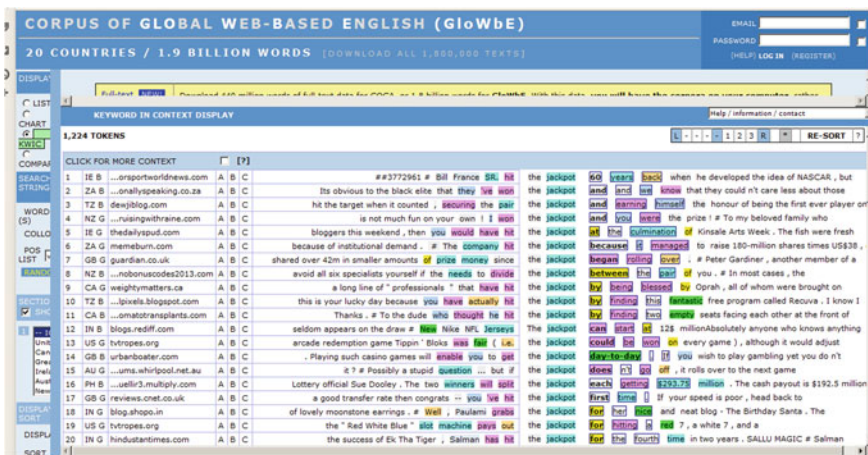

Fig. 1 A sample learning task based on GloWbE

suggesting improvements or devising DDL lesson plans. Selected corpus-based routines offered by *Lextutor* (see Sect. 3.3.2) were used to assist student reflection.

Step 3—technical design (teachers as corpus compilers)
It was only in Step 3 that the selected learning environments (*TextSTAT* and *AntConc*) were explained and practised. Designing, collecting materials and editing/converting document files followed, so that this stage could culminate with student-made corpus collections. Varied resources such as advanced search engine interfaces, journal databases and conversion tools helped trainees collect required materials.

*Step 4—active experimentation (teachers as language investigators)*
Verifying prior hypotheses based on personal corpus compilations was the crucial feature of Step 4. Investigating language problems by conducting various queries and analysing search results was supposed to give trainees a useful insight into how language works.

Step 5—technical design (teachers as materials writers)
Another phase technical in its nature, similarly to Step 3, involved designing interactive quizzes based on corpus findings. As mentioned above, the idea of bringing 'closure' to corpus consultation with quiz authoring was intended to give trainees a ready-made product for in-class use.

Step 6—personal reflection and peer assessment (teachers as reflective practitioners)
The whole project was summed up by evaluating the teaching potential of compiling personal corpus collections, concordancing and multimedia authoring in a final essay. Moreover, corpus-based quizzes were uploaded to the course Moodle and participants took one another's quizzes to give feedback (Fig. 2).
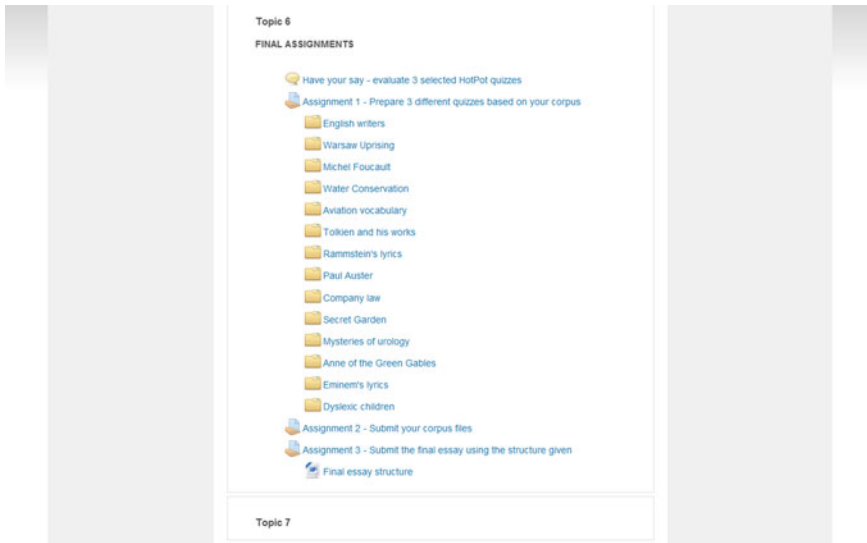
Fig. 2 Corpus-based interactive quizzes uploaded for peer-review to a class Moodle

The data collection instruments were final essays submitted by the participants on completion of the course, authored quizzes based on corpus-driven data uploaded to the Moodle platform for peer evaluation by the class, and informal interviews with course participants held while delivering feedback and assigning the final grade.

3.3 Findings

3.3.1 Awareness-Building Impact of Authored Data-Driven Teaching

The study showed a varying degree of understanding of what corpus linguistics is most effective for. Students followed personal interests in music, literature or seeking help while writing M.A. dissertations, with rather few participants trying to assist the teaching process. This seems to indicate that more work is needed before student teachers can actually internalise a new technology-based instructional procedure (here, do-it-yourself concordancing) and use it effectively to prepare classroom materials or lesson plans.

The purposes for corpus investigations could be divided into two halves—descriptive versus exploratory. However, quite a few personal corpora proved to be weak in terms of scope, sampling and representativeness, even though the participants reported source retrieval to be generally easy. Most claimed they had clear principles for source selection and inclusion, but, given limited knowledge of corpus linguistics, the effort put into the compilation of materials was not always as great as could be expected.

Despite training, quite a few participants still did not have prior expectations or hypotheses to test. The analysis showed a varying degree of depth of linguistic findings—some students were satisfied only with coming up with a list of most frequent words, verbs or collocations, others made comparisons between subcorpora, while a few others came up with linguistic characteristics of a particular genre. Only 2 or 3 student teachers analysed their subcorpora for type/token ratio and shared and unique tokens and types, thus employing the most sophisticated text analysis procedures.

Even though the intersection between a personal corpus and an authoring tool (here, *Hot Potatoes*) proved to be the strongest point of the study, analysis of the output showed that the selection of language problems for *Hot Potatoes* quizzes was not always meaningful enough—deeper reflection is needed and greater exposure to corpus-based materials in practical language classes.

3.3.2 Viability of Corpus-Based Training Environments

Turning language teachers into corpus designers will inevitably involve the skills of operating concordancing programs. Collecting raw texts, compiling them (either as

separate files or in one document), sometimes copying from pdf files or converting pdfs to txts, is followed by loading text files into a concordancing program. Another method of text retrieval can be the use of a web spider to automatically retrieve selected Internet domains or discussion group posts into a corpus, as is the case with *TextSTAT*.

Given the requirements of the current study (free-of-charge and widely available solutions, accessible in the English language, with varying degrees of meta-corpus knowledge and terminology sophistication), we decided to assess the applicability of four different solutions as concordancing environments for the current study: on the one hand, freeware programs such as *TextSTAT* (http://www.niederlandistik.fu-berlin.de/textstat/), *Simple Concordance Program* (http://www.textworld.com/scp/) and *AntConc* (http://www.antlab.sci.waseda.ac.jp/software.html); on the other, a collection of online scripts available at *Lextutor* (http://www.lextutor.ca/).

The most essential function is the searching procedure, ranging from simple keyword search through associated words search with multiple words input, searching a corpus for occurrences of words from a pre-defined list ('stoplist'), sorting concordancing by left or right collocates together with the frequency information and, finally, providing word and letter frequencies from the entire text. The searching process is intricately connected with the concordance output, where on the one hand the user can either evoke the full text with the keyword highlighted (*TextSTAT*) or gain access to the entire source file (*AntConc*). The use of wildcards and regular expressions, part-of-word (prefix/suffix) search and case-sensitive searches further enables the user to narrow down the output to the desired examples.

Some other aspects of accessibility are expressed in such technological considerations as trouble-free operation, transparent interface, easy installation, intuitive icons, PC/Mac versions and compatibility with various operating systems. Finally, the metalanguage and linguistic knowledge necessary to formulate queries influences the accessibility of the tool, and one can distinguish simple concordancing solutions, applicable also for students with proper in-class training (*TextSTAT*) and more sophisticated software demanding greater linguistic knowledge in formulating precise queries (*AntConc*).

The criteria included in Appendix 1 were inspired by Davies (2005), Diniz (2005) and Ioannou-Georgiou (2002). They were used to assess the extent to which the concordancing tools would be accessible both to graduate student teachers and student translators.

As was proved in the course of the research, the three software solutions (*TextSTAT*, *AntConc* and *Simple Concordancing Program*) are of different levels of sophistication, making it possible to guide trainees through the process of corpus compilation and data-driven queries from simpler to more advanced skills. Given the manner of program operation, learning curve and user-friendliness, *TextSTAT* is the first-contact choice. This is so due to its limited options, clear icons, and lack of metalinguistic jargon and complicated options. Loading files into the program,

making a frequency list, searching the corpus for concordances and retrieving the fuller context are all accomplished fairly quickly and successfully. *AntConc* proves to be the second choice in do-it-yourself concordancing, provided a certain amount of knowledge of procedures of corpus linguistics as well as readiness to evoke some linguistic and statistical concepts are shared by teachers. Also, a much greater range of options in the interface makes it less immediately accessible, though manageable after a series of activities spread over a couple of classes. Finally, even though the name might suggest something else, *Simple Concordancing Program* is the most complex of all the three solutions, necessitating the greatest amount of training and the least intuitive to master on one's own.

Lextutor as a data-driven learning environment demands separate discussion as it is not a complete concordancing program like the other three but rather a website with a set of online scripts used for particular purposes. The functions offered by the website are highly impressive, well beyond what the freeware concordancing programs can achieve, with particularly interesting instances enumerated below:

- Concord Writer (http://www.lextutor.ca/cgi-bin/conc/write/index.pl): dynamically linking the written text to a corpus and a dictionary;
- Text-Based Concordances (http://www.lextutor.ca/conc/text/): producing a complete concordance of an input text;
- N-Gram Phrase Extractor (http://www.lextutor.ca/n_gram/): extracting strings of words between 2 and 5 items;
- Text-Based Range (http://www.lextutor.ca/cgi-bin/range/texts/index.pl): loading up to 25 separate document files and checking the range of particular words (i.e., in how many texts particular words reappear);
- Text-Lex Compare (http://www.lextutor.ca/cgi-bin/tl_compare/index.pl): similarly to Text-Based Range, comparing texts on unique and shared tokens (Recycling Index) as well as confronting input texts with ready-made wordlists (BNC 1000, 2000, 3000, 4000 most frequent words, Academic Wordlist);
- KeyWords Extractor (http://www.lextutor.ca/key/): determining the defining lexis in a specialized text or corpus, by comparing the frequency of its words to the frequency of the same words in a more general reference corpus;
- Hypertext Builder (http://www.lextutor.ca/hyp/1/): transforming the input text into a fully clickable hypertext resource.

However, since the website is directed much more at corpus linguists than language teachers, the amount of terminology, the length of description and the plethora of additional options make it quite difficult to operate without explicit, step-by-step, repeated instruction. Additionally, it might be quite challenging to actually sift the functions summarized above out of the whole range of uses offered on the main page. Thus, *Lextutor* is recommended for use during a training session as a set of isolated functions, as given above, with direct links to particular scripts posted to the class Moodle, in order to focus trainees only on the specific operations.

3.3.3 Awareness of Strengths and Limitations of DDL and Multimedia Authoring

Almost all the participants indicated that they had never applied corpus consultation procedures before, whether as learners, teachers or translators. This is definitely an issue that greatly influenced the final outcome of the present project—lack of sufficient exposure to Data-Driven Learning in the learning mode prior to the corpus authoring experience meant that some participants did not really understand and could not fully appreciate the possible impact of the procedures applied.

Similarly, almost all of the participants claimed that they had learnt a lot from the experience, especially from the linguistic point of view. As one participant noted (original grammar),

> It was surprisingly good experience to know the whole process of creating corpus and analysing texts. I enjoyed watching ready-made corpora during the first classes. I thought it would be useful in the future to have ready-made corpora while language learning. It would help me to memorize difficult and most important words, phrases in specific context.

What was particularly noteworthy was a general assumption that corpus consultation procedures, be they with ready-made or authored collections, are a useful component of a learning inventory. Quite a few students expressed a positive (or even highly enthusiastic) view that they would definitely apply at least some of these elements in their own learning, claiming it would "provide support for [their] own process of learning, mainly because it provides an easy way to check collocates and to trace a linguistic context of a given word". Around a half claimed that they would compile their personal corpora in the future, for their personal study purposes. A few participants, clearly practicing language teachers, found immediate application of DDL for their own teaching, planning to compile collections of student works or texts from highly specialized language domains. On the other hand, one student was very clear that she was much more comfortable with the use of dictionaries and this kind of resource was sufficient for her study skills. Another expressed a worry that her students might not be analytical enough to manage corpus-based data in the learning process.

On the contrary to the mixed opinions summarized above, virtually all the participants were positive about authoring self-study multimedia quizzes based on corpus data. Some were even highly enthusiastic about the process, claiming the materials would be of immediate use for their learners. Again, it is rather surprising that students had not been exposed to the *Hot Potatoes* authoring tool before, given its wide availability and more than 20 years of existence. It was evident that the technically obsolete nature of the software was not as important as the predicted learning benefits.

A considerable number of students realised their corpora were too small to yield valid results. One of the student teachers expressed the view that "[t]he frequency of the words and phrases I wanted to check was far too weak to actually use as a reference point for tasks and teaching materials building especially if I aimed at advanced language learners". Another noted the necessity of choosing a different

set of texts since the themes and language in the ones used proved to be too general. This clear understanding of the limitations of existing materials was another benefit of the study.

4 Conclusion

Building target language awareness in student teachers is highly complicated and needs diverse approaches, methods and tools. With great interest in learner autonomy as a methodological paradigm prevalent in contemporary language instruction, there arises a clear need to empower teachers to work with text in order to become language analysts and investigators. This is especially useful given the current debates on the erosion of standards brought about by the advocates of English as a Lingua Franca and English as an International Language.

While Data-Driven Learning and corpus linguistics might seem ideal vehicles for fostering teacher language awareness, as was evidenced by the current study, the actual adoption of corpus self-compilation is not that easy. Perhaps it is not surprising that the problems arose not on the technical side, but rather were the result of inadequate theoretical preparation and insufficient exposure to corpora prior to the study. The learning gains in terms of increased language awareness were not as great as was expected. Apparently, much greater exposure in the learning mode to corpus use would be needed to better channel students' expectations towards their personal corpus collections.

It is hoped that introducing corpus lookup, alongside dictionary lookup, into the process of studying English for Academic Purposes will result in greater awareness of the benefits and possible learning gains of personal corpus compilation and concordancing. This again proves a need to distribute the features of Computer-Assisted Language Learning (here, corpus linguistics) across the curriculum rather than gather them in one isolated class. This finding is in line with some previous studies into the intersection of corpus consultation and strategy training (Chambers, 2005; Kennedy & Miceli, 2001; St. John, 2001), which advocated conscious and gradual introduction of Data-Driven Learning in the classroom.

As regards the multi-staged instructional procedure addressing varied learning styles and placing student teachers in different roles (learners, analysts, technicians, reflective practitioners), it proved to be quite successful. Obviously, the rate of technology adoption varied across study participants, clearly showing different technology adopter categories (Innovators, Early Adopters, Early Majority, Late Majority, and Laggards—see Rogers, 1983), which are normally distributed across the entire population in a bell-shaped curve (Anderson, Varnhagen, & Campbell, 1998).[2] According to Rogers (1983), adoption of innovation occurs inevitably but what distinguishes individual adopters from one another is the rate of that adoption.

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[2]See Geoghegan (1994) for a detailed description and characteristics of these particular adopter categories.

What might possibly help increase the rate of adoption, then, is drawing diverse learning styles, learner/teacher roles and learning modes into the instructional programme.

Appendix 1. A Comparative Review of Selected Concordancing Programs (quoted after Krajka, 2007, pp. 50–52)

	TextSTAT	Simple Concordance Program	AntConc
Availability			
Price	Free	Free	Free
Downloaded from the web	Yes	Yes	Yes
Licence	Freeware	Freeware	Freeware
Upgrade	Yes	Yes	Yes
Operating systems	Windows XP/7 Mac OS 10 Linux (when equipped with Python)	Windows 95 + Mac OS 10	Windows 98+, Mac OS 10.4.5, Vine Linux
PC/Mac versions	PC and Mac	PC and Mac	PC and Mac
Internet access	Yes (to retrieve websites for a corpus)	No	No
Interface language	English, German, Dutch, Portuguese, Spanish, Catalan, French, Italian, Galician, Finnish, Polish, Czech	English	English
Technical criteria			
Hardware requirements	Standard	Standard	Standard
Installation	No installation (unzipping only)	Easy	No installation
Reliability of operation	Yes	Yes	Yes
Navigation	Clear	Clear	Medium
User support systems	Link to a website with examples of regular expressions	Standard Windows help	No help
Interface transparency	Yes	Medium	Medium
Icons	Non-standard icons	Transparent but few icons	No icons, menu items instead
Encoding	All systems	No information	All systems

(continued)

	TextSTAT	Simple Concordance Program	AntConc
Corpus compilation			
Filetypes supported	doc, sxw, txt, html	ans, asc, txt	txt, html, htm, xml
Corpus compiled into one file	No	No	No
Retrieving Internet websites to a corpus	Yes	No	No
Retrieving discussion group posts to a corpus	Yes	No	No
Removing selected files from a corpus	Yes	Yes	Yes
Searching procedures			
Keyword search	Yes	Yes	Yes
Associated words search	Yes	No	Yes
Available number of associated words	1	0	Unlimited
Wildcards use in search	Yes	No	Yes
Case-sensitive search	Yes	No	Yes
Regular expressions search	Yes	No	Yes
Part of word search (prefix, suffix search)	No	Yes	Only prefix
Specifying keyword-associated word distance	Yes	No	Yes
Concordance output			
KWIC (key word in context) display	Yes	Yes	Yes
Keyword gapped display	No	No	No
Exporting concordance list as a file	Yes (txt, doc)	No	Yes (txt)
Exporting frequency list as a file	Yes (csv, xls)	No	No
Displaying results with reference to the source file	Yes	No	Yes

(continued)

	TextSTAT	Simple Concordance Program	AntConc
Displaying full context (full source text file)	Yes	No	Yes
Sorting by left/right collocates	Yes	No	Yes
Special characters table	No	Yes	No
Additional functions			
Frequency list	Yes	Yes	Yes
Word profile	No	Yes	No
Letter frequency	No	Yes	No
Concordance-based interactive test	No	No	No
Concordancing a text based on a word list (stoplist)	No	No	Yes

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Meaning-Making Practices in EFL Classes in Private and State Schools: Classroom Interaction and Bilingualism Policy in Colombia

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Abstract This paper focuses on a study of classroom interaction in state and private primary schools in Armenia, capital of the Quindío province in Colombia. It is a qualitative, ethnographic study that analyses the teachers and learners' interactional and pedagogical practices leading to the construction of meaning in the bilingual classroom, and how these practices conform to the institutional expectations and national policy on bilingualism being implemented in Colombia at the moment. It also highlights the specific aspects of the interaction and the literacy practices taking place, describing the origins, types, topics and genres of the monolingual texts and the mini-texts of the lessons and how bilingual talk unfolds around them. It also discusses the way teaching materials are put to use, and the strategies used by the teachers to teach their students to learn to read words and sentences. The monolingual writing practices in English at the board, or in the students' notebooks, contrast with the bilingual talk (Spanish-English) that took place around the worksheets and handouts the teachers used. The analysis of the talk around the texts in these events revealed not only the complexity of patterns that could be traced to the wider policy context and the global forces that are having an impact on the everyday classroom routines of schools in Colombia, but also that the pedagogical practices leading to the construction of meaning conform to the institutional expectations and the national bilingualism policy, that is, *the Programa Nacional de Bilingüismo*, being implemented at the moment.

1 Introduction

Due to globalising tendencies and the need for greater and better intercultural and economic contacts, during the years 2002–2010, Colombia's national government at the time, through the National Ministry of Education (MEN), introduced the *Programa Nacional de Bilingüismo* (PNB) as part of educational policy at the time,

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labelled *Revolución Educativa*, an Educational Revolution. The concept of bilingualism has captured the attention of the general public since then, as a result, institutional authorities in the province of Quindío, and Armenia, its capital, have promoted in the last five years, together with other municipal Secretaries of Education throughout the country, the implementation of the *Programa Nacional de Bilingüismo* (2004–2019). In Armenia, and in the province of Quindío, pilot projects in primary and secondary state schools have started to be implemented in order to convert the capital city, Armenia, and the province's towns into 'bilingual cities and towns'. The PNB aims at improving the quality of the teaching and learning of English in Colombia, according to the standards established by the Common European Framework of Reference for Languages so it is expected that teachers can reach level B2 and pupils in 11th grade, the last grade in secondary education, level B1.

The following general and specific questions guided the study: what is the state of the art of the learning and teaching of English in primary education in public institutions in urban Armenia and what is the incidence of political reforms in this context? Other questions are: how does the talk of the teacher help promote proper spaces for the learning of English? Which are the most relevant features of the talk between teachers and learners in the English classroom? How are literacy practices taking place in the bilingual classroom? Which texts are used in these classes and what is their role in the interaction? How are present policies reflected in the pedagogical processes in the bilingual classroom?

2   Context and Participants

From a list provided by the local Secretary of Education of fifty state and private schools where English is taught as a subject in the curriculum of primary education, nine schools were finally selected, including two schools that were taking part in the bilingualism pilot project that the education authorities in Armenia have been implementing since 2002. The criteria for selecting the schools were: their tradition, recognition of the school in the community, location, and collaboration with the research. The sample included three of the most traditional private schools, and five state schools with about 35 pupils in each group, grades first, second, third and fourth. In order to start the observations, an informed consent was signed by the teachers, the heads of the schools, the coordinators, and the team of five researchers.

2.1   Private Schools

The three private schools where the data were gathered have excellent facilities: spacious classrooms with pictures and drawings of children's characters from movies and television and a 'corner' for highlighting the foreign language, English,

with photographs and pictures about the culture of the L2, and books among other things. Classrooms are fairly large, and well lighted. The schools have large sport facilities and pedagogical and technological resources that facilitate the work of the teachers. It is common to find traditional patterns in the distribution of desks, where the teacher is the focus of attention, with pupils facing the board, and with little possibility of face to face interaction among pupils in class.

Parents usually participate in school extracurricular activities, plans and projects, and the school administration promotes the learning of the foreign language, English, and other languages like French among the pupils. It also supports the in-service training courses offered to teachers by one of the private universities in the city and the Teacher Development Programme (TDP) that the Ministry of Education offers throughout the country. One of the goals in the teaching of English in these schools is that the pupils perform better in the state exams, a requisite for entrance to university studies, and obtain a proficiency level of B1 or B2 on the scale of the Common European framework, in accordance with the aims of the PNB.

2.2 State Schools

Although the majority of public institutions have acceptable facilities, they are much smaller, with less spacious classroom and fewer visual resources than private schools. Parents in these schools are less committed, and in some cases totally indifferent to the education of their children, leaving all responsibilities for the execution of plans and programmes exclusively in the hands of teachers.

The data collected in this study did not reveal the implementation of extracurricular activities to stimulate the learning of the foreign language in these institutions or programmes that involve the parents; however, visual artefacts and decorations on the walls are intended to create awareness of the importance of learning English. There is a bulletin board in every classroom, with short messages in English, pictures of cartoons or characters from children's literature, and bilingual signs in the cafeteria, the library, the corridors, and in the teachers' room. The distribution of the pupils in class is the traditional one, with the teacher in front and the pupils' desks facing the board.

3 Literature Review

3.1 Social Perspectives in the Acquisition of a Second Language

The study of second language acquisition (SLA) has focused on exploring the way a language other than the native language is acquired inside or outside the classroom. According to Ellis (1997, 2004, p. 4), the description of the acquisition of a

second language is one of the aims in this field of research; another is an explanation that identifies external or internal factors that respond to the question of why learners acquire a language the way they do. Despite this emphasis on psychological factors in SLA, from the beginning, the importance of social factors in the process has been acknowledged (Ellis, 2004, p. 37).

One acquisition factor is the social context in which the learning takes place. Social conditions, according to Ellis (2004, pp. 4–5) have an influence on the opportunities of learners to hear and speak the language and on the attitudes they develop. Internal factors also reveal why learners show differences in the way they learn the second language and how much success they have. A key question for the field of SLA is if the sequence of acquisition can be altered by formal instruction.

3.2 The Talk of the Teacher and the Learners in School Contexts

Traditionally, research in education contexts has not focused on the study of the characteristics of discourse in the classroom. Until relatively recently, transcription of discourse was not considered relevant. Barnes (1976) was one of the first to direct attention towards classroom discourse and its relationship with different learning processes. This author identified two types of talk in classroom contexts: exploratory and final draft talk. The first occurs when the teacher formulates open questions and responds to the contributions of the learners instead of evaluating them. The second occurs when the teacher asks questions with the purpose of verifying the knowledge of the student about topics that have been explained, in order to evaluate. Barnes (1976) holds that classroom discourse should not encourage memorization and knowledge about facts by the students, but their capability to think and reason.

3.3 Classroom Interaction and Discourse

The canonical pattern of interaction in the classroom, which is known as Initiation-Response-Feedback (IRF), identified by Sinclair and Coulthard (1975), and IRE (Initiation-Response-Evaluation) by Mehan (1979) is perhaps the most common pattern in the classroom, where the teacher is the focus of attention. However, this model is not always as simple or predictable as these authors said. Edwards and Mercer (1987) maintain that the IRF format focuses on the form of what is said, rather than the content (Edwards & Mercer, 1987, p. 10). The classroom as a social space is a 'microcosm' made up of direct behavioural interactions

between teacher and learners and among learners. This microcosm extends further in the school, where it forms a small social system (Briones, 1990, p. 50). Unlike other contexts, where discourse occurs autonomously and simultaneously, in the classroom one person, the teacher, is responsible for control of the totality of discourse, not only negatively, but also positively, to support education and learning (Cazden, 1988). Cazden holds that the classroom is one of the most complex social systems in which discourse is an important part of the identities of participants (Cazden, 1988, p. 32). Analysis of classroom interaction means going deep into a complex universe where the social, the cultural and the political converge. The social roles of teacher and learner are not abstract: they must be performed and constructed continually in the course of interaction (Stubbs, 1983).

In reference to turn taking in interaction, Cazden (2001, p. 86) holds that teachers and researchers must be careful not to interpret the silence or answers of children as lack of knowledge in those that participate sporadically; conversely, when there is a profusion of voices and turns are not observed, it is necessary to try to understand when interruptions or overlapping speech are in effect an interruption and when they express solidarity or support.

3.4   Code Switching in the Bilingual Classroom

Research in bilingualism has contributed significantly to the development of the study of talk in classroom interaction. A number of studies have centred on code switching in bilingual community contexts. For example, it has been found that code switching is used as a resource to confirm the identities and value systems of participants (Gumperz & Hernandez-Chavez, 1975). Other studies have found that bilingual speakers use code switching to express additional meanings (Gumperz, 1982; De Mejía, 1994). Gumperz (1982) showed the importance of code switching as a contextualization cue to construct and interpret meanings in context, not as a deficit to be stigmatised in educational contexts. As Martin-Jones (1995, p. 98) claims, contextualization cues do not have meaning on their own; they obtain meaning when they occur simultaneously with verbal clues in particular moments of the interaction. This approach has been useful for the analysis of code switching in educational contexts since the classroom, and in particular the language classroom, is characterised by asymmetrical relations of power (Martin-Jones, 1995, p. 108).

3.5   Meaning Making and Negotiation

Interaction is an exchange of ideas, emotions and thoughts between two or more people that send, receive and interpret messages in a particular context. The meaning of the messages in the interaction are constructed collaboratively. Meaning

is neither "general or abstract, it is situated in social and cultural and is continuously transformed in those practices" (Gee, 1999, p. 63). This means that in different contexts there are different social and cultural practices (Luk & Lin, 2007, pp. 50–53). In face to face interaction, it is supposed that interlocutors, teachers and learners in the classroom must construct meaning in a significant way, although this is subject to different factors. According to Luk and Lin (2007), "[l]ike any other institutional context where interaction takes place, the classroom is a place where a lot of sense making needs to be done both by the teacher and the students. Making sense *to* and making sense *of* is a circular route between the teacher and the students" (p. 84). It may vary, then, depending on the interactive or communicative resources that emerge in the context of intercultural interaction, whether linguistic (for example phonological, syntactic, lexical) or paralinguistic (gestures, facial expressions, volume of the voice).

Based on Ochs (1996) and her symbolic dimensions of a situation, Luk and Lin (2007) propose other types of resources that are used in coordination with linguistic forms: interactive resources: that is, linguistic, cultural, and institutional resources. Linguistic resources (e.g., phonology, syntax, and lexis) and paralinguistic resources (e.g., gestures, facial expressions, volume of voice) are "meaning-making resources available (…) in the process of interaction" (Luke & Lin, 2007, p. 50). This means that linguistic resources not only entail the linguistic systems of the L1 and the L2—in this case English and Spanish—but also the knowledge and use that teachers and learners have made of them.

Institutional resources are related to the specific institutional roles of institutions. Luk and Lin (2007, p. 51) say that these are interactive resources developed through the institutional role of teachers as 'teachers', and of students as 'students'. Therefore, the status, power, responsibility, obligation, and accumulated experience of institutional practices are associated with these roles. The professional role of the teacher, associated with her institutional identity, makes possible the use of diverse strategies (drawing, using verbal language, audiovisual aids) to make sense for students; at the same time, the student recognises his or her institutional identity, which permits him or her to guess the meaning or the intentions of the teacher (for example, the student knows that if the teacher hands out a worksheet, s/he must work with it and be silent when s/he does not understand the teacher). These practices or routines are interpreted by both tacitly.

In the third place, cultural resources—among the most common of which are cultural stereotypes—superficially simplify complex phenomena of individual behaviour. Other resources or "cultural models" as Gee (1996) calls them, include simplified versions of reality that categorise reality (Gee, 1996, p. 53). In the construction of meaning and negotiation, the teacher may capitalise on the students' contributions, creating possibilities of empowerment and identity development with L2.

3.6   Constructing and Negotiating Identity in the Classroom

Just as meaning is constructed in interaction, so too—one can say—is identity. Identity is complex and difficult to define mainly "because, a lot has been written about it, and not very clearly" as Block (2003, p. 79) notes. From a poststructuralist perspective, the term acquires various interpretations. According to Norton (2005, p. 5, as cited in Luk & Lin, 2007), studies of identity answer questions like: how does a person understand his/her relation with the world? How is that relation constructed over time and through space? How are possibilities for the future understood? On the other hand, social theory considers interaction in conversation to be a representation of different subjectivities; that is, in Weedon's (1997) terms, "aware or unaware thoughts and emotions of the individual, sense of oneself and ways of understanding one's relation with the world" (p. 32).

Nevertheless, as Block (2003, p. 81) maintains, it is in conversation that meaning is made, but much more occurs in these encounters than simply the interchange of information from one mind to the other. There is, of course, negotiation to find meaning, but one also negotiates identity, and in particular, solidarity, support, and *face. Yule* (1996, p. 60, as cited in Block, 2003, p. 77) defines face as "the public self-image of a person (…) that emotional and social sense of self that everyone has and expects everyone to recognize". "Face may be positive or negative. In Yule's words, positive face is 'the need to be accepted (…) to be treated as a member of the same group (1996, p. 62 as cited in Block, 2003, p. 77), while negative face is 'the need to be independent, to have freedom of action, and not to be imposed by others' (Yule, 1996, p. 61, as cited in Block, 2003, p. 77). Both notions of face are negotiated at the same time during interaction (Scollon & Scollon, 1995, as cited in Block, 2003, p. 77)". These notions of identity contrast with structuralist, fundamentally essentialist notions that arise from the idea that identity is coherent and stable in time and space (Block, 2003). Weedon proposes, instead, the term 'subjectivity' to refer to "the conscious and unconscious thoughts and emotions of the individual, her sense of herself" (1997, p. 32, as cited in Block, 2003, p. 79), a subjectivity, which in Weedon's (1997) terms is "precarious, contradictory, and in process, constantly being reconstituted in discourse each time we speak or think" (p. 32). Identity is therefore multiple and it is managed by thought and discourse (e.g., writing, and body language).

4   Research Methodology

This is a qualitative, micro-ethnographic study, with non-participant observation, so as to minimise the impact of the presence of observers in the classroom. Among the data collection techniques were audio and video recordings, data transcriptions, field notes, diaries of the teachers and the researchers, semi-structured interviews,

surveys, and reviews of official documents. The data was collected over a period of three months with the direct participation of the teachers and their pupils. Other sources of information were the principals, the English coordinators and other English teachers in the schools.

According to the grounded theory approach, the following categories of research emerged from the data: IRF/IRE interaction patterns, interactive resources in the negotiation of meaning: linguistic, institutional and cultural resources (Luk & Lin, 2007), the talk around the text, and tensions in official policy on bilingualism. The last stage consisted in triangulating the results with the participants in the study. Taking into account the nature of the research, it was important to take the data back to them and confront them with the results, especially the teachers, to ensure validity in the research.

5 Data Analysis

5.1 Initiation, Response, Evaluation/Initiation, Response, Feedback

Analysis of the data shows that the interaction in class is fundamentally traditional, with rigid patterns of question-response-evaluation/feedback (IRE/IRF), where the teacher is the centre of attention and the learner has a passive role. Nonetheless, some of the schools, both state and private, are making efforts to obtain greater pupil-participation in class, which is evident in the majority of episodes of sense negotiation taking place during class interaction. This is evident in the linguistic, cultural and institutional resources (Luk & Lin, 2007) identified in the data.

Code switching and translation in these classes denote special communicative skills, not limitations in the use or knowledge of the foreign language. Rather, code switching and translation aids continuity in interchange and facilitates comprehension, avoiding additional explanations. For example, in one of the private schools, the two teachers in grades 4 and 2 can teach through English. They are both graduates of the Modern Languages Programme at the local state university, and although they had graduated four years earlier, they have an adequate oral proficiency of English. However, the English directives used by the two teachers were mostly limited to instructions from the book. They kept order in class generally with short commands or phrases in Spanish.

On a very few occasions there were opportunities for real communication in English, as shown in the following example, where the pupils were working with a unit from the book, a short text about monsters, where adjectives were used to describe the scene.

Extract 1

```
        T:      he …
        S       has…
        T:          has…three..qué sera three?. <What do you think  three means?>
        S:                          //tres!! <three>
5       T:      three big…what?
        Ss:                 ojos!! <eyes!!>
        T:        si tiene uno cómo va a tener tres?.three big
        Ss:     (      ) tres! <three>
        T:      three big…
10      S:              dientes..dientes..<teeth..teeth>
        S2:         //teeth
        S:                  //ojos <eyes>
        S2:                     teeth
        T:      three big teeth!! (writing on the board)..three big teeth
```

The teacher initiates the interaction, and starts with the subject of the sentence '*he*', hoping that the children will complete the meaning of the sentence; however, only one pupil ventures to repeat the teacher's initiation. Further down, in line 3, the teacher, encouraging the children to continue making sense of the text, switches code from English to Spanish in order to make sure the children understand. A pupil—line 4—who had volunteered a turn answers in Spanish, *tres* <three>, however, his response does not correspond to what the teacher wanted: a full sentence, not a single word.

Later, in line 6, several pupils answered in chorus in Spanish, *ojos*!! <eyes!!>, the teacher switches to Spanish, making them realize it was not the correct response, since they had already read part of the text describing a one-eyed monster. After this, she completes the sense of the text with the adjective 'big', although the pupils still do not capture the meaning of the text and do not know exactly what the teacher wants from them. Some pupils respond in Spanish, *tres* <three>, but without providing the complete sentence, or the noun they were supposed to produce. Finally, a pupil contributes in Spanish, *dientes…dientes* <teeth>—line 10—repeating the term in Spanish, while another pupil answers in English 'teeth'. As the extract shows, it is the teacher who at the end provides the answer: three big teeth.

5.2 *Negotiation of Meaning*

In the following episode, the pupils and the teacher are working on an activity in the book. They must select one of the frequency adverbs from the following list: always, often, rarely, never.

Extract 2

	T:	nine (.) Americans eat spaghetti on Thanksgiving
	S:	usually
	T:	usually (?) did you say usually (?) ok. again, Americans eat spaghetti on
		Thanksgiving
5	S:	**nunca** <never>
	T:	**por qué** (?) <why> **si es la celebración de Thanksgiving** <if it is Thanksgiving
		they are celebrating>
	S:	turkey
	T:	ok, Mateo. do they eat spaghetti (?)
10	S:	no, turkey
	Ss:	**pavo** <turkey>
	T:	turkey, **entonces ponemos NUNCA** <then we write NEVER>

The teacher negotiates meaning by verifying the answer and repeating the question (line 3), asking for clarification (line 5) and paraphrasing (line 7). The pupil, on the other hand, identifies the response (line 8) and others corroborate the same answer in Spanish (line 9) to make sure there is no doubt about the correct answer. The fact that the pupils resort to translation avoids possible breaks in the interaction and shows they understand what is being negotiated.

There is not much oral or written production in these classes. Pupils generally repeat in English the answers in the textbook or worksheets, or the answer the teacher expects, according to the drills they do in class; they may also respond to salutation routines, prayers or songs at the end of the class with formulaic expressions previously learned in English, but their oral production is not spontaneous. It is requested by the teacher, who in every case initiates the exchange.

In one of the state schools the teacher had practically made no use of English. She had had no training in English, but instead relied on her husband, an undergraduate student in Modern Languages at the local public university, who helped her with materials and methodological advice. Besides the limited vocabulary on the board and in the activities prepared for the students, there was virtually no use of English. There was no oral production from the pupils either. They would sing the lyrics of the songs taught by the teacher or just repeat the vocabulary she provided. In this class, the construction of meaning took place around the activity on the board when the teacher asked them to fill in the missing adjectives in short phrases. The teachers in the state schools complained about not having any training in L2; meanwhile, in private schools, teachers expressed their concern for the lack of language maintenance, although this is not a generalised situation.

In most cases, pupils resort to translation in their exchanges with their teachers. However, the teachers themselves stimulate the translation of words in the textbooks and worksheets, since it is common for them to require the pupils to produce what they have extracted from the textbook or worksheets. Thus, meaning is constructed by resorting to L1 through translation. Meaning making is therefore not a joint activity between teacher and learners; rather, the students, construct meaning 'for' the teacher (Luk & Lin, 2007), who is constantly verifying the meaning of words in L1. There was no evidence of spontaneous communication or initiation in

the interaction by the pupils. Nor was there evidence of tensions produced by their lack of comprehension of directives used by the teacher; they always contributed to make meaning, even if it was simply through the use of vocabulary, or resorting to translation.

An additional category that emerged from the data was interactive resources. According to Luk and Lin (2007), there are three types of resources: linguistic, institutional and cultural.

5.3 Linguistic Resources: Code Switching and Translation

Extract 3

	T:	ok. number one Christmas is on December twenty…twenty…twenty fifth. twenty
		fifth **qué será lo que me están diciendo ahí** (?) <what do you think it means here?>
		Juan Carlos qué crees tú que me están diciendo en la número uno (?) <Juan
		Carlos what do you think it means. in number one?>
5		(.) number one, Christmas is on December twenty fifth, I'm with Juan. number
		one.Christmas is on December twenty…
	Juan:	**Navidad es en Diciembre veinticuatro** <Christmas is December twenty four>
	T:	ok, pay attention to me, they say Christmas is on December twenty fifth,
		but remember in Colombia, we celebrate Christmas on twenty four
10	S:	**//venticuatro <twenty**
		four>
	T:	and Americans celebrate Christmas on twenty fifth (.) so, what we have to use (?)
		marquemos la segunda opción : OFTEN <let's mark the second
		choice: OFTEN > **por qué** (?) <why?> **porque recuerden que en algunos países**
15		**celebran el veinticuatro de diciembre** <because remember that in some countries
		they celebrate [Christmas]

In this episode, the teacher initiates the exchange in English (line 1), and immediately in (line 2) continues in Spanish, turning again to English (line 3). Code switching in this case provides a linguistic resource. It is not a lapse. The same happens in the last initiation of the teacher (lines 8–10). The teacher may not be aware of this code alternation, however. The pupils respond in Spanish, or tend to make more use of translation as a linguistic resource (line 8).

As Luk and Lin (2007) claim, in schools, the quantity and quality of linguistic resources are asymmetrical. In this case, teachers in the state school had no access to L2 so classroom interaction was mainly limited to games on the board, transcribing vocabulary—in this case, English adjectives like happy, sad—or colouring in drawings in the worksheets, done previously by the teacher. Pupils, on the other hand, did not have linguistic resources except the songs they had learnt by heart, the rituals at the beginning of class, and the vocabulary in the lesson plan.

Given the available linguistic resources in the state context, the opportunities to negotiate meaning were scarce or non-existent. However, when students asked for the translation of a specific term, teachers always provided the meaning in L1,

switching code to reinforce their message or to verify that the pupils understood the vocabulary of the lesson. Sometimes they would rely on the pictures in the textbook or the drawings in the worksheets.

5.4 Institutional Resources

Many of the meaning making situations are related to institutional practices like keeping control in class, demanding silence, calling for attention, checking attendance, reprimanding pupils, and, especially, maintaining good 'discipline' among the students. Institutional resources are also related with work at the board, or in the notebook or worksheets, which allow the teacher to keep control by assigning work in class so that the pupils can work individually. The following extract, of a class in a state school, shows how the teacher makes use of her institutional identity, as Luk and Lin (2007) argue, to make sense for pupils. The pupils recognize the institutional identity of the teacher, her authority, and her reprimands and warnings.

Extract 4

	T:	**sí!.la quince.ya la hicimos. sino que hubo algunos que no la han hecho porque no vinieron ese día**..<yes! number fifteen. We did it> (children protest) <it is just that some of you haven´t done it because you were absent that day> **pasamos a la** nineteen. **pasamos a la**
5		**diecinueve y ahora la hacen ustedes solitos** <let´s move on to number nineteen and now you do it yourselves > I´m going to read and you´re going to complete. **yo les leo y ustedes me completan..listo**? <I will read and you complete it, ready? > ok. Tom is scary…scary. **quién se acuerda**? <who remembers? >
10	S:	**está bravo**… <he´s mad>[some students are chatting with others]
	T:	ya saben ( ) **nada de juegos. nada de trabajar en parejas nada de nada** <you know. no playing around. you are not going to work in couples. Absolutely not>
	S:	( )
15	T:	**copien lo que yo copio acá** <copy what I am copying here> (teacher copies on the board) **para eso tienen el libro.en parejas no los voy a volver a dejar hacer** <that is why you have the book for, I am not going to allow any work in couples>.Tom…**quién se acuerda**? Tom…who remembers?>

Teachers in the private school had more linguistic resources. Directives were usually in L2, with code switches to L1, and rituals like greetings were a little more extensive. Pupils responded more naturally, even in the corridors, although they looked surprised if the researchers addressed them in L2. In these classes, teachers would also introduce games or other types of activities in the textbook so children were kept busy. Written activities were also done on the board. These included filling in spaces in phrases or sentences.

5.5 Cultural Resources

In the next extract, some pupils contribute to making meaning of a short text about Halloween. This is possible because the children know Halloween, which is now a popular and widespread commercial event in Colombia; schools usually programme different activities for children on this date.

Extract 5

```
T:       number six, children wear costumes in Halloween
S1:      always
T:       ok, very good. do you know what is a costume (?) if I wear a
         costume as a witch, I wear a hat (she shows the picture of a witch
5        and the students add other items for the costume) what happens in
         halloween (?) qué pasa en Halloween (?) <what goes on in
         Halloween?>
S2:      costumes
T:       ok, los niños utilizan disfraces en Halloween. <children wear
10       costumes in Halloween> cuál usamos (?) <which one do we
         use?> (referring to frequency adverbs) cuál escoger? < which one
         should we choose?>
T:       always (chorus)
```

In Extract 5, two pupils respond to the teachers' initiation, a question on the topic of the text. In line 2, the frequency adverb is provided by a pupil, the answer the teacher expected. As in every lesson observed, grammar is an important component, in accordance with the Ministry's Basic Standards. In lines 8 and 13, again, the answer is in English, as the learners already have some knowledge of the topic, one that they identify with and is closer to their lives. Although it belongs to the L2 culture, they have already appropriated it.

5.6 Talk Around the Text

Pedagogical practices in the interaction show two types of text. The first type is constructed in the interaction between teacher and learners: the text on the board, in the pupils' notebooks and worksheets, on bulletin boards, in the audiovisual aids, in the decorations on the walls, and in the homework assigned. The second type is in the textbook—in private schools—or the reading material photocopied by the teacher (worksheets) in state schools. The methodology of the textbook and its content often becomes the methodology used by the teacher. These texts are mostly on international topics. The influence of English speaking cultures is marked and there is no direct relationship to the world the pupils know or to local culture. The use of textbooks cause tensions not only between the teachers and the institutions, but also with parents, who complain when the content is not covered completely.

The selection of textbooks does not follow strict criteria, as the decision is usually taken by the institution, or at times by the teachers themselves. The interaction around the text is usually of the traditional IRF/IRE type, with meaning constructed collaboratively between teacher and pupils, in L2 and L1, although the text in the worksheet, the textbook and on the board is always monolingual.

5.7   The National Bilingual Programme and Tensions

This study identified several tensions generated by the implementation of the PNB and related policies, which could be attributed to the effects of micro-policies intended to respond to governmental macro-policies and the power relations in schools. Clear evidence of hierarchical relations and their influence on the class-room emerge with the implementation of the PNB, in-service training of teachers in L2, and methodological workshops for English Language Teaching (ELT).

Tensions are also evident within the institutions, due to the activities assigned to teachers, according to internal policy, methodological approaches and interpretations of coordinators, school principals and parents. Sometimes, it is assumed that the use of L2 is imposed by the school. Other tensions result as teachers are made responsible for children's bilingualism in the immediate future without enough resources or proper training, especially in primary education. Nevertheless, the education authorities have made efforts here. The Ministry of Education offers training courses for state schools teachers but the response of teachers does not always meet the expectations so the real situation is that private schools now show tangible advances in comparison to state schools.

6   Conclusions

Analysis of the data shows teachers are preoccupied by the 'correct' use of grammar and punctuation in both speaking and writing, especially at the board. Pupils in private schools tend to participate more actively, although some are more interested in drawing and colouring their textbooks or exercise books. In state schools, the pupils are more prone to compete with others and provide the answer the teacher expects. Other pupils are ready to correct their classmates, contributing the right response, while others are totally indifferent to the process and wait for others to provide it in order to transcribe it. The agenda of the teachers in private and state schools is focused mainly on following the new policy, the PNB (2004–2019), the Curricular Guidelines for English, and the Basic Standards of MEN.

The power asymmetry is evident in these classes as the teacher occupies a privileged position as the main actor in the interaction. In both types of schools, code switching by teachers and learners is constant. Yet this shows the "development of meta-linguistic and meta-cognitive competence" (Canagarajah, 1999, as

cited in Luk & Lin, 2007, p. 100) rather than lack of control of L2, as it could be interpreted. It is rather a linguistic resource the teacher can use to make sure the pupils understand, or to save time explaining. L1 is the language of spontaneous communication in both private and state schools. Translation, as a function of code switching in these contexts, is another resource used by teachers and learners in the classroom. Even if teachers express disagreement with this practice, everyone uses it to ensure comprehension.

As mentioned earlier, negotiation of meaning in these schools is almost non-existent, as interaction becomes an institutional exercise with the teacher asking for the student to construct sense 'for' the teacher (Luk & Lin, 2007), who expects the correct answer in the text. Pupils are allowed no time to think about the answers. They are expected to produce them immediately, with little tolerance of silence.

There is a marked difference in the use of texts, and the interaction with them. All of the reading materials used was monolingual but the interaction with the texts was bilingual; although the majority of turns were for the teacher, with very few contributions in English by the pupils, especially in state schools. In private institutions, children seemed to be more motivated to interact with the texts.

Sometimes pupils complain about not understanding what they read. Some forget to bring their books to class or do not do their homework, which increases the tension among teachers. The teachers' discourse is mostly generated by the topic of the texts, with a marked use of metalanguage and directives. Also present are grammar explanations and elements of institutional discourse, with a heavy orientation to the 'objectives' in the lesson plans, as required by the Basic Standards (*Estándares Básicos*, MEN) for each area of the curriculum.

Literacy practices are generally reduced to transcribing what the teacher writes on the board. According to the teachers in the semi-structured interviews, it is a form of control to avoid errors in L2, and a way to demonstrate that the teacher followed the lesson plan and covered the topics supposed to be included in every class; besides, it provides the parents with information about the children's progress. These practices also reveal the perpetuation of cultural practices in education, since children, from their early years of schooling, are accustomed to taking notes, and transcribing from the board.

In private institutions content and aims are limited to the content of the textbook, with the advantages and disadvantages this entails. In the same way, as a result of the *Programa Nacional de Bilingüismo* (PNB), as mentioned before, there has been an increase in the number of hours for English in the curriculum. In 2010, private schools dedicated up to four hours and they announced their intention to increase that number to 6 h in 2011. There is also a greater interest among children in learning English. This results from the publicity and promotion of bilingualism and the general interest in the community.

TRANSCRIPTION CONVENTIONS

Font   Times New Roman
Bold   **Spanish**
Normal font   English
UPPER CASE   Initials of fictitious names

Participants

T   Teacher
S   Student
Ss   more than one student speaking
S1, S2, S3   Individual students

Symbols

(   )   inaudible speech
[   ]   comments about nonverbal behaviour
//   overlapping speech
(.)   pause of less than one second
…   short pause
………   long pause
(?)   question
^   rising intonation
< >   Translation into English

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L1 Use in the Foreign Language Primary Classroom—Pre-service Teachers' Beliefs and Practices

Małgorzata Tetiurka

Abstract Student teachers' beliefs and practices regarding the use of L1 in a foreign language primary classroom were examined. A group of 34 Polish BA students were studied on three different occasions: before observation practice, after observation practice and during their own teaching practice. Changes in opinions, triggered by formal instruction and reflective observation, were observed. However, the challenge of conducting a lesson on their own proved too overwhelming for some trainees to implement their principles in real life. The issue of L1/L2 use by learners is outside the scope of this study.

1 Introduction

The trend towards an early start in English internationally has provoked a heated debate and triggered considerable interest in research into multiple aspects of TEYL (Teaching English to Young Learners) (Blondin, Chandelier, Edelenbos, Kubanek-German, & Taeschner, 1998; Enever & Moon, 2010; Johnstone, 2002; Kubanek-German, 1998; Nikolov & Curtain, 2000; Nikolov & Djigunovic, 2006, 2011; Rixon, 1992). Although the reasons for this policy shift vary across countries (Enever, 2011; Graddol, 1997, 2006, 2010), they are frequently based on findings from research in the field of Second Language Acquisition (e.g., Bialystok, Craik, Klein, & Viswanathan, 2004), with the underlying premise being the "folk wisdom" that "younger is better" (Nikolov & Djigunovic, 2006, p. 244).

However, recent research findings from the fields of bilingualism and brain studies favour exposure-related factors over age (Muñoz, 2006; Muñoz & Singleton, 2011). In countries like Poland, despite recent changes in access to foreign language materials, school still remains the main source of exposure to a foreign language for many learners (Komorowska, 2014) and also the main environment in which that language can be used. This is especially true for Young

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Learners (Enever, 2011). Consequently, the quantity and quality of classroom interaction seems to be of paramount significance for language learning to take place. In an early primary classroom this interaction is mostly teacher-initiated and teacher-led, contributing to comprehensible input (Krashen, 1985) and setting a model for learners to follow. Notwithstanding this fact, there is a dearth of research on primary classroom discourse (Nikolov & Djigunovic, 2014). The aim of the present study is to address this lack by looking at how student teachers manage classroom discourse during their teaching practice, and, in particular, which language they choose to use while interacting with young learners.

2   Contextualising the Problem

The early start policy in Poland is part of a global trend and in line with the language policy of the Council of Europe and the European Union (Council of Europe, 2001). This trend is developing at an unprecedented pace. It was only in 1991 that Brumfit wrote: "Young learners are only just beginning to be socialised into the international world of formal education" (Kennedy & Jarvis, 1991). A little more than twenty years later, English at a primary level can be "a high stake academic subject" (Butler, 2009, p. 24) with, for example, wealthy Asian parents going to such measures as sending their children to 'English villages' or 'English-only' cities to increase their opportunities of mastering a foreign language (Cameron, 2003; Butler, 2014). Park (2009) called it *English fever*, while Murphy (2014) referred to this globally observable parental pressure on an early start as *parentocracy*.

   The fact that in most countries lowering the start age was a top-down approach and predominantly a political decision, resulted in insufficient provisions for optimal organisation of the process of teaching/learning a foreign language (Enever, Moon, & Raman, 2009, p. 10). The factor that has had the most detrimental effect has been a lack of well-trained teachers specialising in the area of TEYL. Brewster, Ellis and Girard stated as early as 1992 that what is needed are "teachers of language and teachers of children" (p. 269)—a relatively rare combination even nowadays, and one requiring high level skills in two challenging fields of expertise. All over the world, irrespective of the context, we can see one of the two types of teachers in a primary classroom: either a class teacher, with a good understanding of primary methodology but often lacking in language proficiency, or a specialist English teacher, who, most probably, had very little or no training in TEYL. This seems to be rather unfortunate bearing in mind the great impact a young learner teacher has on a child's learning (Cameron, 2001; Ellis, Brewster, & Girard, 2002; Enever, 2011; Halliwell, 1992; Moon, 2000; Scott & Ytreberg, 1990). Cameron (2003) calls for "making realistic decisions about training teachers" and suggests that this is too important an issue to be left to young learner experts as the expansion of TEYL "will have knock-on effects for the rest of ELT" (p. 105). The importance of finding teachers with appropriate skills is also discussed by Rixon (2000) and Nikolov (2007).

3   The Uniqueness of the Language Classroom

The language classroom is a unique environment as "linguistic forms are the aim of a lesson and the means of achieving those aims" (Walsh, 2006, p. 3). Language is both "the vehicle and object of instruction" (Long, 1983, p. 9, as cited in Walsh, 2006). "Learning arises not *through* interaction but *in* interaction" (Ellis, 2000). Given this specificity, foreign language classroom discourse must be seen differently from content subject lessons. In a geography lesson, what really matters is the content and language is mainly a way of making this content available for the learner. In a language lesson, you cannot separate the two, nor can you claim that one is less important than the other. Thornbury (2000) put it this way:

> Language classrooms are *language* classrooms [original emphasis], and for the teacher to monopolise control of the discourse – through, for example, asking only display questions – while possibly appropriate to the culture of geography or maths classes, would seem to deny language learners access to what they most need – opportunities for real language use (p. 28).

Along the same lines Gardner (2011) claims:

> Since learning a second language involves making part of another cultural group part of one's self, it is unlike other school subjects. When attempting to motivate the student, therefore, teachers should consider this and look beyond techniques that are used with other subject matter (p. 17).

A number of studies have been conducted to gain insight into the ways in which foreign language teachers modify their language while interacting with learners (see Walsh, 2006 for a concise review of the findings). Pica, Young, and Doughty (1987) provide confirmatory evidence that learners who interact with teachers score better in listening comprehension tests than learners who work on similar material but without a chance to interact.

Chaudron (1988) described four aspects of language which teachers modify while interacting with learners. They use simpler vocabulary and avoid idioms; they use shorter, simpler grammar structures and rely heavily on the present tense; they speak more slowly and clearly and their pronunciation follows standard rules rather than local dialects. Last, but not least, they use body language to support their meaning. Lynch (1996, pp. 57–58) puts forward three reasons for such behaviour. The first is the link between comprehension and progress: input must be comprehensible for learning to happen (Krashen, 1985). Secondly, teachers model target language for their learners and, in contexts with limited out-of-school exposure to a foreign language, may be the only model students can experience. Thirdly, without these modifications learners, especially beginners and lower levels, would probably not understand their teachers.

Along similar lines, Tardif (1994) lists five discourse modification strategies used by teachers: self-repetition, linguistic modelling, providing information, expanding utterances and extensive elicitation by means of graded and adjusted

questions. Lynch's (1996) list, on the other hand, includes confirmation checks, comprehension checks, repetition, clarification requests, reformulation, completion and backtracking. Interestingly, Walsh (2006) concludes that these are often used by external observers as descriptors of teacher talk. They should also become interactional strategies used consciously and deliberately to navigate classroom discourse. As Walsh (2006) remarks:

> Sensitizing teachers to the purposeful use of interactional strategies to facilitate learning opportunities in relation to intended pedagogic goals is, arguably, central to the process of SLA (p. 13).

This is very much in line with van Lier (2014), who concludes that learning a foreign language can only be optimised if teachers are in control of both their teaching methodology and language use.

The uniqueness of the foreign language classroom is further illustrated by the fact that a language teacher potentially has a choice teachers of other subjects normally do not have: namely a choice of the language of classroom interaction—Long's 'vehicle of instruction'. This choice may be limited by a number of constraints: national educational policy (Park, 2013), curricular recommendations (Cook, 2001), official English-only classroom policies (McMillan & Rivers, 2011), pre-service teacher instruction advocating a particular methodology, the teachers' own beliefs about learning and teaching (Macaro, 2001), and insights from research, to name just a few. But at the end of the day, in the classroom, tête à tête with the students, it is the teacher who makes the choice.

However, there is no conclusive research into how these choices are made, what informs them and whether a different choice would yield different results. On the basis of the evidence currently available (Hall & Cook, 2012; Macaro, 2001), it seems fair to suggest that a lot of these choices are unplanned, uncoordinated and largely unconscious.

4   L1 Versus L2 Debate

The issue of the use of learners' mother tongue (henceforth L1) in foreign language teaching has been one of the most debated and controversial issues for over two centuries (Butzkamm, 2003; Gabrielatos, 2001). Unlike other methodology related issues, this one seems also to evoke astonishing emotions. Suffice to quote the language used in professional discussions: "skeleton in the cupboard" (Prodromou, 2000), "bone of contention" (Gabrielatos, 2001), "monolingual fallacy" (Phillipson, 1992), "a door (…) firmly shut" (Cook, 2001), "the baby thrown out with the bath water" (Weschler, 1997), "the mother tongue taboo" or "the bizarre ban on mother tongue" (Deller & Rinvolucri, 2002), to name just a few.

4.1 Historical Perspective on L1 Use in L2 Classroom

Historically, the issue came to light with the disappointment in the Grammar-Translation method. Each new methodology emerges as a counterproposal to an existing framework, usually criticising the former method's most prominent attributes (Hall & Cook, 2012). The Grammar-Translation method, which relied heavily on using learners' L1 to discuss grammar and translate written texts, brought disappointment at the beginning of the 20th century, when L2 users' new needs could not be met by this rather elitist method. These new needs included the ability to communicate with other people rather than being able to translate a book from or into a foreign language. The old method was considered "authoritarian and dull" (Hall & Cook, 2012), placing too much emphasis on accuracy at the expense of fluency.

The new approaches which followed, the Direct Method and then the Audio-lingual Method, virtually banned L1 use, which was held partially responsible for the fact that Grammar-Translation method did "virtually nothing to enhance students' communication ability in the language" (Brown, 2000, p. 17). The two language systems (L1 and L2) were believed to be completely separate systems in the human brain that should not be linked for fear of negative L1 interference (Cook, 2001).

Krashen's comprehensible input hypothesis (1985) further strengthened the 'L2 through L2 only' formula, promising that by providing ample opportunities for extensive exposure to a foreign language at i + 1 level acquisition would occur subconsciously.

Communicative language teaching (CLT) did not overtly oppose L1 but did so covertly by suggesting ways of minimising its use at all costs in the classroom. The advent of CLT coincided with the fact that many native speakers of English started travelling the world, making their living as language teachers (Medgyes (1999) coined the acronym NESTs for them) not always having any formal teaching qualifications (Gabrielatos, 2001). Classes they taught often consisted of pupils who did not share one common L1, so the exclusive use of L2 seemed to be the only solution (Atkinson, 1993). Hall and Cook also note that the (often unstated) goal of education then was to prepare learners to communicate in monolingual environments and, consequently, learners were expected to "emulate native speakers of the target language" (2012). From today's perspective this goal looks neither attainable nor desirable.

Cook (2001) claims that "this avoidance of the L1 lies behind many teaching techniques even if it is seldom spelled out" (p. 404). An L2 only policy is also welcomed by coursebook publishers who do not need to publish separate books for specific markets.

Yet despite the fact that throughout the 20th century the use of learners' L1 in ELT was practically outlawed and despite its disappearance from theory and methodological texts, it has survived in ELT classrooms. This shows that there is often a gap between mainstream ELT literature and teachers' practices on the ground (Hall & Cook, 2013). There is currently no research evidence of L2 only

classes. Even in classes run by NESTs learners' L1 is often used, if only by learners amongst themselves (Cook, 2001).

Recently, however, a wider re-evaluation of L1 use in ELT classes has been emerging. Pedagogic arguments include the efficient conveying of meaning, maintenance of class discipline and organization, and teacher-learner rapport. It is also widely recognised that learning proceeds best when it is 'scaffolded' onto existing knowledge. Politically, monolingual teaching has been criticised for its devastating effect on the status of non-native English speaker teachers, and for inhibiting the development of bilingual and bicultural identities and skills amongst learners (Komorowska, 2014).

Despite the recent focus on this issue, however, many gaps remain in our understanding of the extent to which, and how, learners' own languages are used in ELT classes, and the attitudes practising teachers hold towards own-language use. This paper aims to shed some light on the issue by studying the beliefs and practices of student teachers before and after their teaching practice.

5 The Study

The underlying rationale of this paper is that the major challenge facing student teachers of primary children is the need to provide ample comprehensible L2 input and to create quasi-natural opportunities for language production in the classroom context to compensate for the relatively limited out-of-class L2 environment. The question of whether (and if so, to what extent) this is feasible constitutes the major issue raised in this paper.

Our primary concern is to consider the extent to which pre-service teachers are successful in consciously controlling and managing classroom discourse to facilitate learning. To address this issue, we postulate the following research questions:

1. What are the student teachers' views on L1/L2 classroom language use?
2. Do these beliefs influence student teachers' own teaching?

5.1 Participants

The participants of the study were 34 Polish pre-service trainee teachers with no prior teaching experience in formal contexts. They were all university-level students working towards their BA degree in English literature, linguistics or applied linguistics. The group included 28 female and 6 male students. Students who choose the standard EFL course are exposed, over a period of three semesters, to, among other things: 90 h of input classes in TEYL (Teaching English to Young Learners), 45 h of lectures on young learners' characteristics, 30 h of observation practice and

90 h of teaching practice in grades 1–3 and 4–6. The goal of the course is to prepare participants for teaching EFL in Polish primary schools. The topics covered during the course include the rationale behind using L2 for classroom discourse, focusing particularly on the importance of providing rich L2 input for young learners. Special emphasis is placed on the practical dimension of TEYL, with trainees microteaching and reflecting on their practice (Gabryś-Barker, 2012; Komorowska, 2012).

5.2 Data Collection

Data collection continued over a period of one academic year. The data were drawn from a variety of sources obtained in the course of the TEYL instruction and included:

1. Pre-observation practice survey of participants' views on L1/L2 use.
2. Post-observation feedback notes and reports from participants' observation practice, which involved observing six different expert, full-time TEYL teachers (with a minimum of five years of experience) working in primary schools, and evaluating various aspects of their instruction.
3. Video recordings and transcripts of lessons conducted by participants during their teaching practice.
4. Written peer feedback on recorded lessons.
5. Whole-class reflective discussion on the teaching experience with special emphasis on L1/L2 teacher's use.

The whole process reflected what Schon (1983) called reflection in practice, reflection on practice and reflection for practice. For the purpose of this paper, however, only the first three steps of the study will be discussed.

Prior to the study, participants were given extensive information about the character and purpose of the research. Written permissions were obtained from the students to indicate explicit consent to participate in the study. Written consent from both school authorities and parents was obtained prior to the lesson recordings and children were asked for their oral consent on the day of the recording (Alderson, 2008, p. 279).

5.3 Procedure

The variety of data collected enabled the researcher to obtain a deeper insight into the mechanisms behind teachers' beliefs and practices. The initial survey of L1/L2 use in a primary classroom showed student teachers' understanding of the classroom context despite the very small amount of theoretical input they had obtained beforehand. The survey was not delayed in time so any new theoretical knowledge

presented during lectures and classes probably had not been accommodated. The questions were left open on purpose to avoid suggesting any answers.

The second set of data was collected after students had completed their 30 h of observation practice. Again, the questions were open-ended: students were asked to report on what had surprised them most during lesson observations, both in a positive and in a negative sense. For the purpose of this paper, only results referring to L1/L2 use will be discussed.

The third stage involved the researcher watching video recorded lessons conducted by student teachers at the end of their teaching practice and analysing the transcripts. It should be noted that there was a substantial time span between the stages of the study, with the first stage taking place in October, the second in January and the third in September the following year. This allowed for deeper reflection and gave the participants more time to probe their stance on the problem.

6 Results and Discussion

The first set of data was gathered early on during the TEYL course, before the L1/L2 dilemma had been discussed. Without any previous instruction in the topic, students were asked to list all possible situations in which L2 can be used by the teacher in a foreign language primary classroom, and all those instances where L1 should be used. This gave the researcher insight into student teachers' own beliefs about L1/L2 use. Unsurprisingly, all participating students mentioned grammar explanations and nearly all (25) mentioned vocabulary translations as justified uses of L1 (Table 1). What came as a surprise, though, was that the third most frequent use listed was telling students off. Explaining difficult tasks was mentioned by 23 students and housekeeping by 16 of them. Explaining homework, dealing with problems and introducing new material was mentioned by about one third of the participants, whereas functions such as giving test instructions, taking the roll, justifying marks, comparing L1 to L2, correcting mistakes, talking about culture, encouraging pupils to speak and creating a positive atmosphere were mentioned by only a few.

As for L2 use, nearly every student mentioned giving simple instructions and nearly half of them said small talk was best done in L2. Interestingly, praising learners for their work should also be done in L2 according to 13 students, and the same number opted for revision of material in L2. Less than one third considered introducing a new stage in a lesson, defining easier words, taking the roll and doing warm-ups in a foreign language. Individual students listed disciplining students, checking homework, correcting mistakes and providing examples as best done in L2 but there were a couple of adventurous ones who suggested elicitations, grammar explanations and teaching culture as lending themselves to foreign language use. All the L2 functions mentioned by trainee teachers participating in the study have also been discussed in literature (Collingham, 1988; Hall & Cook, 2012; Harbord, 1992; Kafes, 2011; Piasecka, 1988).

Table 1 Student teachers' views on L1/L2 use in the primary classroom

L1	No. of times mentioned	L2	No. of times mentioned
Grammar (rules, tenses)	34	Simple instructions	29
Vocabulary (translating, explaining)	25	Small talk/routines	15
Telling students off	24	Praising students for their work	13
Explaining difficult tasks	23	Revision of material	13
Housekeeping	16	Introducing new stage in a lesson	9
Explaining homework	9	Definitions of easier words/synonyms	9
Dealing with problems	8	Taking the roll	8
Introducing new material	8	Warm-up	8
Test rubrics/instructions	4	Disciplining students	4
Taking the roll	3	Checking homework/classwork	3
Justifying marks	3	Correcting mistakes	3
Comparing L1 to L2	3	Providing examples	3
Correcting mistakes	2	Elicitation/activation of knowledge	2
Culture	1	Culture	2
Encouraging students to speak	1	Explaining grammar	1
Creating positive atmosphere	1		

The usual procedure after the observation practice is to collect students' feedback. To allow for a variety of insights, the questions asked were again open-ended, aiming to elicit the most positive and most negative observations from the classroom environment. The students being studied unanimously commented on the excessive use of L1 by teachers in situations where L2 would be perfectly effective. The students' sensitivity to the topic was probably triggered by the discussions during lectures and classes which focused on this issue. Observing teachers at work gave students an opportunity to experience the transition (or the lack of it) from theory to practice.

The most interesting data was expected from recorded lessons and lesson transcripts. By this time most students were strongly advocating maximising L2 input through classroom discourse (Ellis, 2004, p. 227). The question was whether student teachers would manage to implement their convictions in practice, teaching practice being a fairly stressful and elusive experience.

Understandably, it would be unrealistic to expect of young trainees whole lessons conducted balancing L1/L2 judiciously. What the researcher was looking for

was examples (glimpses, even) of good practice. These were rare but encouraging. Let us analyse some lesson extracts (coding system after Walsh (2006), Polish utterances translated in italics).

Extract 1

T ok let's look at the picture (**circles the picture in the book**) ok so look at page 18 look at the picture (**circles it in the book**) and I will say a sentence and if it's true shake hands with your friend and if it's false click your fingers do you know? shake hands? please shake hands
(**children shake hands**)

T so let's try again shake hands (**children shake hands in pairs**) and click your fingers (**children click fingers**) czyli jeżeli zdanie jest prawdziwe podajecie sobie ręce, jeżeli jest fałszywe klikacie palcami [so *if the sentence is true you shake hands, if it's false click your fingers*] (**teacher demonstrates**)

S zabadoo says?

T no look at the picture at page 18 ok are you ready?

SS yes!

T ok so let's start there's a bath in the kitchen
(**students click fingers**)

In this extract a teacher is doing a warm-up activity in a class of nine-year-olds. She uses English most of the time, even though the game is quite complex and new to children. She scaffolds learners' comprehension with gestures and repetitions. An interesting thing happens here. One of the pupils wants to make sure if this is an old game *Zabadoo says*. He asks this question in English using whatever resources are available to him and gets the answer in English. This way the communication is continued using the target language. Pupils follow the convention initiated by the teacher.

Extract 2

(**SS listen to a recorded story**)

T dobrze… jak wam się podobała ta historyjka? [*so how did you like the story?*]

SS fajna [*nice*]

Here the teacher asks a simple question but chooses to do this in Polish. It is only natural that learners answer in the same language and a chance for a short stretch of authentic communication is wasted.

Extract 3

T ok so let's revise jak tworzymy pytania i przeczenia w czasie past simple zgadza się? najpierw to … ok jeszcze raz w czasie …zdania w czasie oznajmującym [*how do we make questions and negations in the simple past tense? is that right? first this … ok one more time … sentences in affirmative [sic] tense*] can you read it?

> S1 przeczenia w czasie past simple tworzymy przez dodanie did not do czasownika w czasie teraźniejszym [*we make negations in the past simple tense by adding did not to the verb in the present tense*]
> T mhm ok czyli zamieniamy formę czasownika z czasu przeszłego na teraźniejszą zaprzeczając coś w czasie przeszłym zgadza się? [*so we change the form of the verb from past to present when we negate something in the past tense, is that so*] do you understand?

Here the student teacher consciously chooses to use L1 in order to explain grammar clearly, as she later commented. The question remains whether the explanation learners got in Polish was really helpful.

Extract 4

> T tell me what this is
> SS wardrobe
> T yes (**showing another flashcard**)
> S =to kolorowane przeze mnie = [*I coloured this*]
> SS =carpet/carpet/carpet/=
> T yes and this one?

This extract shows another challenge student teachers face while trying to use L2 in the classroom. This trainee was prepared for the usual course of the lesson but was unexpectedly interrupted by a learners' comment. Rather than using this opportunity to introduce some new language while keeping the flow of the lesson, this teacher decided to ignore it. It takes some experience and practice to be able to react to such on the spot situations.

Extract 5

> L1 proszę panią, a skąd pani zna tyle angielskiego [*miss how do you know so much English*]
> T bo studiuję [*because I study*]
> L1 ooooostudiaangielskieapaniniemieszkawAnglii?[ooooEnglishstudies *and you don't live in England*]
> T nie nie mieszkam w Anglii [*no I don't live in England*]
> L2 moja mama kiedyś była w Anglii [*my mum was once in England*]
> T ciiiiii potrzebuję teraz ochotnika [*shhhh I need a volunteer now*]

Similarly to the previous situation, this trainee teacher was completely unprepared for such a personal enquiry and was not able to use this opportunity for a more natural conversation than the usual classroom exchanges.

7 Conclusions

The present study showed that trainee teachers' beliefs are not always compatible with their classroom practices. This might be because their own experiences as learners are more deeply imprinted in their consciousness and it takes some time

and reflection to implement new beliefs in a classroom situation. Secondly, the spontaneous character of the here and now of classroom discourse makes it quite challenging for young, inexperienced student teachers to react to unexpected situations, such as a learner asking a personal question or sharing some personal information. Some of the practices observed in the recorded lessons were not conducive to learning opportunities. Interestingly, as the post-practical discussions revealed, trainee teachers are usually unaware of most of their (good and bad) practices. The same may be true about practising teachers. Awareness-raising activities are helpful in identifying teachers' areas for improvement in classroom interaction. In conclusion, we postulate that reflection on classroom discourse should be an essential part of all teaching practice.

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Should We Blame Machine Translation for the Inadequacy of English? A Study on the Vocabulary of Family and Relationships

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Abstract The present study was carried out as classroom research after it was noticed that there are obvious cultural elements peculiar to Turkish society which do not have equivalents in English, thereby creating confusion and difficulty particularly for beginner-level Turkish learners of English. This confusion in the learning process stems from the inadequacy of the English lexicon. The study investigated the translation skills of Turkish EFL learners concerning vocabulary related to family and relationships in the language education curriculum, and compared the accuracy and clarity of learner outputs with machine translation outputs. Additionally, the participants were interviewed about the lexical gap and its affects, if any, on their motivation. The participants were 52 beginner-level learners of English (12 male and 40 female) whose ages ranged between 18 and 55. Results revealed that the texts produced by group 1, mostly with the help of MT, were lexically stable and poorer in content and density, but semantically quite confusing for average Turkish learners of English. The texts produced by group 2, mostly by manual explanation and correction of the literal vocabulary, were lexically richer in content and density, and relatively detailed. It was also observed that the translation outputs of group 3 were similar to those of group 1, showing an inclination to use online and android translational tools, which was confirmed afterwards in interviews. The study concluded that the lexical gap in the English lexicon related to the family and relationships especially, but also to other cultural domains, might create serious confusion and gaps in the minds of beginner FL learners that should be approached with extra consideration during the development of learning materials and implementation of educational sessions, which in turn might contribute positively to the motivation of the learners.

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1 Introduction

"What do your brother-in-law and brother-in-law do, and where do your wife's sister-in-law and sister-in-law work? In other words, what do your *bacanak* and *enişte* do, and where do your wife's *elti* and *görümce* work?" Sentences similar to the one presented above can often be seen in the written texts of oriental English as a Foreign Language (EFL) learners such as Turks, or heard in their conversations when they struggle to transfer semantic meaning from their source language to the target language in the domain of family and relationships. Turkish and many oriental languages are rich in vocabulary of relationships. This is a reflection of their characteristically intimate and down-to-earth society, which lives in a tightly woven communal environment, where relationships are very important. The family is so important that each degree of relationship receives a unique word as a symbol of representation. Therefore, the situation comes to be family oriented rather than law oriented as it is in most western understandings, which create lots of *...-in-law* vocabulary. These types of webs of heritage can be observed in various domains of culture.

Languages are natural mirrors that reflect the social, economic, cultural, religious, etc. tendencies and preferences of communities. As *the smallest elements in a language that may be uttered in isolation with semantic or pragmatic content*,[1] words reflect a lot about the characteristics of a given language and its society. That is why lexical studies, regardless of what they focus on, are potentially important not only for the field of linguistics but also for other related fields such as philosophy, sociology, psychology, education, anthropology, business, etc.

The current modern philosophies and understandings of the world that stereotype most things that exist, whether concrete or abstract, do the same thing to languages, and therefore to intercultural communication, by limiting the quality of communication because it is bound to the lexical depth of the major languages that serve as a medium. English as *lingua franca* (ELF) and a few other western world languages apparently connect societies on the globe very well but it seems that they are lacking in the social side, which is evident in the specific oriental vocabulary of family and relationships, as well as other cultural domains. The fact is that all languages (need to) adopt or adapt new words, particularly in the domain of technology, to increase semantic and/or pragmatic clarity. This seems not to be the case in the current situation related to—let us say—unique domains, such as family and relationships, religion, culture, etc. of oriental societies and other languages. The sentence quoted at the very beginning of the present paper draws attention to the insufficiency of medium or lingua franca languages (in this case English), which not only generate amusing translations but also reduce semantic clarity. For this reason, although perhaps not crucial, it would certainly be useful to create a

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[1]http://en.wikipedia.org/wiki/Word.

perspective that will initiate *global dynamic linguistic development* to upgrade languages, communication, and mutual understanding in the world. Otherwise, it would be a case of one-way invasion or imposition of lexical terms: linguistic imperialism, in other words. The dominance of a few languages and their culture and the perishing of others is discussed increasingly often in the literature (e.g. Choi, 2003; Ives, 2006, 2014; Modiano, 2001; Phillipson, 1996, 2000, 2008; Pishghadam & Naji Meidani, 2012; Waters, 2013).

In what follows I will first briefly discuss the present philosophical perspective in language education in order to lay the foundations for the theoretical framework of the current study, and to show the relations with text production in translation and communication. Secondly, I will draw attention to cultural problems in translation and language education. Thirdly, I will look at *lexical voids* and their influence on translation and on the motivation of foreign language (FL) learners; and lastly, I will discuss machine translation (MT), an important source of linguistic text production that should be incorporated in educational procedures and materials, but which first needs to be improved. The present study attempts to answer the following questions:

1. With regard to family and relationships vocabulary, are there any differences between translations made with the help of electronic dictionaries and those made with manual explanation?
2. Do lexical gaps in L2 affect the motivation of oriental EFL learners, and if so, how?
3. What is the tendency of L2 learners with regard to MT and manual translation with the purpose of producing texts in L2?

2 Literature Review

2.1 The Philosophical Perspective in Language Education

Arabski and Wojtaszek (2011, p. 1) recall the dichotomy that appeared with relation to the operative processes in learning/acquisition between scholars in the field of second language acquisition (SLA)/foreign language learning (FLL). They explain that in one paradigm, the processes of L2 learning/acquisition were incorporated predominantly in mental and cognitive phenomena that are to a large extent dependent on learners' individual psychological characteristics. A more recent view attempts to incorporate culture-related variables into the psycholinguistic paradigm, seeing them as contributors to individual variation and social organisation. Following Vygotsky's (1986) theory of psychological development known as *Socio-Cultural Theory*, research on L2 has devoted increasing attention to socio-cultural matters in education. They have been investigated from a variety of angles in what has become known as the "socio-cultural turn" (Cohen, 2011; Whitfield, 2005) in foreign/second

language (FL/SL) education. However, despite the stress on the socio-cultural aspect in FL/SL education, the topic remains quite underdeveloped. This seems to be partly because the philosophies and procedures of the proposed and applied teaching methodologies at hand lack an all-round perspective, and partly because of the peculiarities of the source and/or target languages.

Whether the psycholinguistic or sociolinguistic view is adopted, it is still beneficial to be aware of the contemporary world, which increasingly needs and calls for tolerance of differences and enhanced understanding of global textures that used to be so mysterious and raise difficulties of many types in many domains. However, it would not be too optimistic to say that the similarities have always been much more common than the differences, and that what we need are just slight modifications or regulations in our current perspectives or attitudes.

2.2   Bilingual Translation in FL/SL Learning

Many times in my classes throughout my practices as an FL educator, I have asked my students to write a full report of their family and relationships as a term paper for the English Writing Course at both high school and university levels. The submitted compositions revealed that although the students had quite a good command of English, most of them could not avoid producing sentences which sounded strange because they contained much unclear lexical repetition. The vague and unclear sentences had much in common, and I concluded that this vagueness must have been caused by the inadequacy of the lexicon of the target language in that specific topic. I decided to study the matter, focussing on the strange-sounding sentences in the essays of my EFL students.

Very frequently, the worst sounding sentences contained the following vocabulary, and were caused by the lexical gap between Turkish and English:

Hala: the sister of the father	*Bacanak*: the husband of the sister's sister
Yenge: the wife of the brother and uncle	*Baldız*: the sister of the wife
Teyze: the sister of the mother	*Görümce*: the wife of the brother for the sister
Dayı: the brother of the mother	*Elti*: the wives of the two brothers for each other
Amca: the brother of the father	*Anneanne*: the mother of the mother
Eniște: the husband of the sister	*Babaanne*: the mother of the father
Kayınbirader: the brother of the wife	

Both the Turkish to English (L1 to L2), and English to Turkish (L2 to L1) translations were affected. Significantly, the Turkish to English translations were less clear, while the English to Turkish translations were less accurate and more vague. This was certainly not the intended or desired outcome, not only in

translation and interpretation studies but also in intercultural communication. Some sample sentences from the students' essays follow:

My aunt and my uncle had a quarrel with my uncle and aunt.
(Halam ile dayım, amcam ve teyzem ile kavga ettiler.)
My mother, my aunt, aunt and my aunt cooked together.
(Annem, yengem, halam ve teyzem birlikte yemek pişirdiler.)
My father's brother-in-law, brother-in-law, and brother-in-law sang a song.
(Babamın eniştesi, kayınbiraderi ve bacanağı şarkı söylediler.)
Their sisters-in-law and sisters-in-law do not get along well.
(Baldız ve görümceleri iyi anlaşamaz.)
My grandmother and grandmother took pictures with their daughters in law and sons in law.
(Anneannem ve babaannem gelinleri ve damatları ile fotoğraf çektirdiler.)
My bother-in-law works at the factory.
(Eniştem fabrikada çalışıyor.)
My aunt and my aunt are kindergarten teachers.
(Teyzem ve yengem anaokulu öğretmenidirler.)

As can be seen, the English translations of the Turkish sentences in brackets sound quite strange, as if they had been written by kindergarten children who have just begun learning the FL. However, the incorrectness in these translations lies in the cultural richness of the source language, which does not correspond to the target language. Turkish culture is more specific about and more interested in family relations. Therefore, word for word translation supported by online tools can create confusion. The psychological aspect of the problem, especially for young FL learners, is more complicated. The current and only way of dealing with this is to advise learners to downgrade their conceptual maps of family and relationships, and to think more simply by neglecting their cognitive L1 categorisations, and using L2 words such as aunt, uncle, brother-in-law, sister-in-law, and grandmother as hyponyms. One might suggest alternative ways of expressing the intended meaning by saying, for instance, *wife's sister's husband* for *bacanak* instead of brother-in-law, but it would be very similar to saying *koku* (smell) for both *odour* and *fragrance* (unpleasant and pleasant smells), *sour milk* for *yogurt*, *alms* for *fitre* and *zekat* (different Islamic charity donations), *baggy trousers* for *şalvar*. This either makes the word longer or greatly decreases the semantic clarity. This approach has been adopted by the Turkish Language Association (Türk Dil Kurumu) in their attempts at purifying the Turkish language and including foreign words in the Turkish lexicon, which cultivated words such as *uçan top* (flying ball) for *volleyball*, *yarım baş ağrısı* (half headache) for *migraine*, *ana haber sunucusu* (main news presenter) for *anchor-man,*[2] etc. This solution is neither consistent with the tenets of Aristotelian categorisation[3] nor in line with the requisites of post-modern thinking, globalisation, and intercultural communication. It might be useful

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[2]http://www.tdk.gov.tr/index.php?option=com_content&view=frontpage&Itemid=1.

[3]https://www.princeton.edu/~achaney/tmve/wiki100k/docs/Categorization.html.

to recall that progress occurs when the insufficient, incomplete, instable, or inaccurate is upgraded and optimised; not when the detailed and optimal is downgraded.

MacKenzie (2013) contrasted two big ELF corpora with learner and user generated corpora and concluded that language contact and bilingual processing in general tend to lead to lexical simplification, which can be observed both in learner language and ELF. According to Mauranen (2012, p. 117), bilingual processing biases lexical choices towards the most frequent vocabulary, and therefore, leads to lexical and semantic loss. Therefore, in order to avoid this deterioration in language (s) and text production as well as loss of meaning in translation and to establish a holistic view of bilingualism or multilingualism, as Grosjean (2010, p. 75) also proposes, there should be more frequent cross linguistic interactions, including borrowings and lexical transfers. Albl-Mikasa (2014) reported that the speech of a growing number of non-native English speakers has made conference interpreters highly critical of the spread of ELF. ELF is a recent phenomenon, the implications of which have only been brought to the surface by recent research (cf. Jenkins, Cogo, & Dewey, 2011). In sum, in order to adopt a more appropriate way of dealing with languages, culture, intercultural communication, education, business, and globalisation, etc., one must realise that English can serve as a lingua franca as long as it embraces not only technological developments but also the available cultural and historical richness of other languages. Second, something must be done to overcome these difficulties. Lo Bianco (2014) stressed that globalisation is connected with culture and FL education, and discussed the cultural effects and meanings of what is foreign about a language, and ways in which globalisation destabilises the assumptions we make as a result of seeing languages as foreign. The discussion might illuminate the path towards real postmodern globalisation which encompasses societies, languages, differences, cultures, etc.

2.3   Lexical Voids, Translation, and Motivation

Difficulties for FL learners are psychological, cognitive, affective, orthographic, pronunciation-related, semantic, syntactic, and motivational in nature. Anxiety, attitude and aptitude also create problems. Another problem is the lexical gap between the Turkish and English, investigated and discussed under the heading of *lexical void* in the literature (Blum & Levenston, 1978; Koren, 1997; Laufer, 2013; Shlesinger & Almog, 2011; Uzun, 2011).

Tymoczko (2013) argued that the rise of English as the dominant global language tended to impede the development of translation theory of broad linguistic, cultural, and temporal foundations. She further explained that as English increasingly became the dominant language of translation studies, the vocabulary of English affected the theoretical concepts and hypotheses, which seem eurocentric (e.g. Cheung, 2009; Lianeri, 2006; Susam-Sarajeva, 2002). They therefore work

against the development of a durable translation theory. Janssen (2012) explained that when talking about words, linguists mostly focus on those words that are established parts of the vocabulary. However, in some cases it is necessary to refer to words that are not part of the vocabulary, as in the case of lexical gaps. A lexical void is a word that does not have a direct equivalent in the target language. Uzun (2011, p. 32) argued that voids in L2 are problematic in language production because learners would be unable to compensate satisfactorily for gaps in L2. Voids in L1 cause problems in recognition and receptive comprehension processing because learners find a conceptual gap in their mother tongue, forcing them to form new words to describe unfamiliar concepts. Together, these make for serious difficulties in translating and interpreting texts, especially between languages that lack linguistic, historical, cultural, and religious compatibilities. One example is the Bulgarian and Turkish language pair. From such Bulgarian cultural and historical words as *мартеница*[4] [martenitsa], *гъдулка*[5] [gadulka], and *Хъшове* [Xashove] —"Bulgarian revolutionaries who emigrated to Wallachia" (Stoyanova, 2014)— one can compose the sentence: "На всеки 1и Март Хъшовете слагат си мартениците и свирят на гъдулка цял ден." [Every year on the 1st of March the Xashove put on their martenitsas and play gadulka all day]. This is very difficult to convert into Turkish or other languages. The same problem occurs in bilingual translations of Turkish cultural words such as *sevap* (something like the antonym of *sin*, or a holy reward bestowed by God), *naz* (coy behaviour that is done in order to receive preferential treatment; behaving as if something is not accepted or it is disliked), *nefis* (something like wishes or desires that originate from the ego or secular existence), etc. Sterbenz (2014)[6] has also explained the matter using some Russian words as examples. *почемучка* [pachemoochka], "a person, usually a child, who always asks a lot of questions", *белоручка* [belaroochka] "someone who doesn't want to do any dirty work", have no direct or complete equivalents in English. Similarly, English words such as *ford*, *prowl*, *skylight*, etc. do not have equivalents in Turkish. Even if we assume that the words mentioned are extreme examples, the fact remains that lexical gaps between different languages is a reality which is quite problematic for translation studies and for FL education.

Such incompatibilities affect the motivation of FL learners not only when learning L2 words but also in text production. Unfortunately, to my knowledge, no studies have investigated the effect of lexical voids and reported their influence on student motivation. Ellis (2001, p. 36) admitted that despite the rich literature on motivation in general psychology, the matter has not been fully exploited in FL/SL education. This might be because motivation is not countable or measurable (Ur, 1996, p. 275). Positivistic modern philosophical approaches to research have tended to neglect matters that cannot be directly assessed, measured, or observed.

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[4]http://en.wikipedia.org/wiki/Martenitsa.

[5]http://en.wikipedia.org/wiki/Gadulka.

[6]http://www.businessinsider.com/untranslatable-russian-words-2014-4.

Nevertheless, studies on motivation have often reported that it is central to (FL/SL) education (e.g. Busse & Walter, 2013; Dörnyei & Ushioda, 2013; Harvey, 2013). It has been suggested that the only way to carry out research on intrinsic motivation is through qualitative data recording: interviews, journals and notebooks (see Wentzel and Wigfield (2009) for an extensive collection of motivational theories, factors, and studies).

2.4 Machine Translation and the Development of Educational Procedures and Materials

The rise of information and communication technologies (ICT) has enhanced educational technologies. Technology (websites, computer programs and mobile applications) used in almost all learning, teaching and translation. It is a long time since Krashen talked about FL learners carrying dictionaries in their pockets rather than grammar books (as cited in Lewis, 1993). Nowadays, they carry neither dictionaries nor grammar books, but technological tools that process electronic data. Therefore, MT deserves closer attention from FL educators. Most of the programs at hand today are successful in translating single words and short phrases but not at sentences. This is probably because of the operational philosophy of the programs (see Uzun & Salihoglu, 2009 for an explanation of how MT works).

   Although it is not to be found in course books and FL materials and although it is not officially used by educators because of the recent emphasis on communication, translation is unavoidable in almost all FL learning, and MT is used very frequently by learners. Instead of desperately trying to force students to follow the communicative approach, it might be better to follow the tendencies of the FL learners who are so addicted to technology and its artefacts. It might be a good idea to include translation in course books, written and spoken materials, digital sources, etc., and to investigate the use and function of MT in FL education. This may improve the cultural vocabulary database of the current translation programmes, and also preserve less spoken or used languages (Bird & Chiang, 2012).

3 Methodology

The study investigated the translation skills of Turkish EFL learners concerning the vocabulary related to family and relationships in the language education curriculum, and compared the accuracy and clarity of learner outputs with machine translation outputs. Additionally, the participants were interviewed about the lexical gap in the family and relationships domain and how it affected their overall motivation.

3.1   Participants

The participants were 52 beginner-level learners of English (12 male and 40 female) aged 18 to 55. They represented various demographic characteristics and came from different economic, cultural, and educational backgrounds. The first language of all participants was Turkish, and none of them knew any other foreign languages except beginner level English. Some of the participants had given up formal education after secondary school (N = 18), whereas some participants were either enrolled in a programme at a university or had graduated from a BA programme (N = 6).

Besides, 23 of the female and 5 of the male participants were married, which means that they were quite accustomed to the complex relationship types in the extended family. The majority of the participants had large extended families; that is, 79 % of the participants (N = 41) came from core families that were formed of 4 persons or more. Counting secondary relatives, the number expanded to 40 persons or higher per participant. All participants had good information about their relatives as well as a good degree of acquaintance with the extended family, so they knew all the L1 words for the family members.

3.2   Materials

Throughout the course, Oxford University Press's *New Headway Elementary* course book and workbook were used as sources of materials where explanatory sentences and some vocabulary equivalents could be found. Additional exercises and online materials were provided to the learners so they could better comprehend both the semantics and the grammar of the topic. Also, some text translation websites such as *Google Translate*, *translate.com*, and *Yandex Translate* were introduced, although students were warned that although quite accurate at the lexical level, these are not very reliable with long text outputs. The learners were also free to consult the available translation applications with their mobile phones and tablet computers. These applications included *iTranslate*, *Talk Translate*, *Google Translate*, and *Easy Language Translator*, which are available at the Google Android Apps Store.[7] Additionally, the *AntConc* 3.4.2 program[8] was used to analyse and compare the texts.

3.3   Procedure

The present study was carried out as classroom research after it was noticed that there are obvious cultural elements peculiar to Turkish society which do not have

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[7]https://play.google.com/store/search?q=translate%20all%20language&c=apps.
[8]http://www.laurenceanthony.net/software.html.

equivalents in English, thereby creating confusion and difficulty particularly for beginner-level Turkish learners of English. The study was conducted in five different classes (of 8–13 learners) throughout a period of two weeks (8 h of class time in total) in the middle of the semester of an EFL course in the Public Education Centre and Evening Arts School in Bursa city, Turkey. Before the start of the course, during admission and enrolment, a background observation questionnaire was circulated among the learners to collect demographic information. This is a standard procedure in the school. Additionally, the course teacher interviewed the learners and asked about their linguistic background and proficiency levels at the very beginning of the course.

Following the introduction of family and relationships vocabulary, during the regular classes, the learners were asked to write short paragraphs introducing their families and relatives. After reading the students' texts, the classes were to talk about the extended relationships in their families, such as "I have an uncle who is an engineer; my aunt is 52 and she lives in Istanbul; both of my grandmothers are alive and about 90 years old", etc., and, as a follow-up activity, to discuss the lexical equivalents of the semantically implied relationships such as brother-in-law; sister-in-law; sisters' husband; brothers' wife; etc. and their Turkish counterparts. At the end of the class, the teacher asked the learners to build their family trees and to write a full essay as homework on their family and relationships by introducing each person and giving further information about the relations among the extended family members.

The general grouping and procedural directions are presented in Table 1. In group 1 (2 classes) the teacher encouraged the learners to use the available electronic dictionaries whenever they needed to while writing their essays; while in the other group 2 (two classes) the teacher pointed to the deficiencies in MT and advised the learners to try to write and explain the relationships on their own, as there are lexical gaps in English. The teacher did not provide any intentional instruction in the remaining group (one class). The learners were told they would not be graded for their work but would receive feedback in order to improve their writing skills. Thus, it was ensured that they felt comfortable and free to write for as long as they needed. Also, they did not seek the assistance of third parties.

In the following week, the teacher collected the essays and interviewed all the students, asking each student (a) what he or she thought about the lexical gaps (b) if they affected his or her motivation, and if so, how, and (c) whether he or she used electronic dictionaries, and if yes, which ones. The interview was converted into a kind of discussion in the classroom, so that each person expressed his or her opinions. The teacher randomly read a few translated (L2) sentences from each

Table 1 The general grouping and procedural directions

Group	Direction
Group 1 (two classes N = 19)	Encouraged to use electronic dictionaries
Group 2 (two classes N = 20)	Encouraged to explain manually
Group 3 (one class N = 13)	No specific direction provided

essay, and asked the learners in the classroom to convert these into L1. These were to be verified by the writers of the sentences. Meanwhile, the teacher noted down the feelings and opinions of the students, which were later subjected to content analysis and grouped under certain main topics, as presented in Table 3. The essays generated 1404 sentences comprising 12,636 words. The essays were analysed both electronically and manually, and compared with the help of the *AntConc* programme, after which the results were recorded and saved.

4 Results and Discussion

Text analyses revealed superficial translation outputs, especially by the learners in group 1, which created confusion for those processing the vague and strange-sounding translations. The texts produced by group 1, mostly with the help of MT, were lexically stable and less rich in content and density, but semantically quite confusing for average Turkish learners of English. The texts produced by group 2, mostly by manual explanation and correction of the literal vocabulary, were lexically richer in content and density, and relatively detailed. It was also observed that the translation outputs of group 3 were similar to those of group 1, showing an inclination to use online and android translational tools, which was confirmed in the interviews.

   The text analyses revealed fixed vocabulary use in group 1, an inclination to provide detailed explanation in group 2, and inconsistent vocabulary use and preferences in group 3, with the exception of the words *uncle* and *aunt* as *amca* (paternal uncle) and *teyze* (maternal aunt) respectively, since these are the first

Table 2 Tendency to use family and relationships vocabulary in text production

Class	Frequent vocabulary
Group 1 (electronic dictionaries)	*Fixed vocabulary*: grandfather, grandmother, uncle, aunt, cousin, niece, nephew, brother-in-law, sister-in-law, mother-in-law, father-in-law
Group 2 (manual explanation)	*Detailed phrases*: mother's father, father's father, mother's mother, father's mother, mother's (younger/older) brother, father's (younger/older) brother, mother's (younger/older) sister, father's (younger/older) sister, (younger/older) uncle's (younger/older) son, (younger/older) uncle's (younger/older) daughter, (younger/older) aunt's (younger/older) son, (younger/older) aunt's (younger/older) daughter, mother's (younger/older) sister's (younger/older) son, father's (younger/older) sister's (younger/older) son, mother's (younger/older) sister's (younger/older) daughter, father's (younger/older) sister's (younger/older) daughter, (younger/older) sister's husband, (younger/older) brother's wife, wife's mother, husband's mother, wife's father, husband's father
Group 3 (no deliberate choice)	*Mixed usage of fixed and detailed vocabulary*: tendency to use uncle for 'amca' (father's brother) and aunt for 'teyze' (mother's sister) because these are provided usually as first equivalents in dictionaries

equivalents listed in dictionaries. Table 2 presents the vocabulary that the learners in the three groups tended to use during their translation and oral and written text production.

The interview data hinted at the effect of lexical voids and their influence on student motivation. Almost half of the learners stressed that they were negatively influenced by the lexical gap in L2. They emphasized that talking about cultural issues and particularly about their families and relationships were among the easiest things for them, as they could do so without preparatory work or study of additional information. However, talk was obstructed by the lexical voids. It was harder to explain matters differently since their general vocabulary was limited. Some learners, however, said it was easier just to memorise a few fixed words or hyponyms and use these without worrying about loss in meaning. However, this was possible only in the family and relationships topic, but not in all cultural-specific topics. Apparently, they liked generalisation when producing texts but not when receiving them.

The responses presented in Table 3 indicate that the lexical gap in L2 decreases the motivation of the learners not only with regard to communicating in English, but also to learning English. These two components, communication and learning, however, are a must in FL education and should be continuously reinforced and enhanced. Otherwise, the learning process becomes vexing, leading to physical and motivational dropouts. FL education needs to benefit from motivational studies in the field of psychology that, although both qualitatively and quantitatively insufficient, might shed some light on the problems for it seems that FL education is more than just the teaching of the mechanics of the language such as grammar, vocabulary, reading, and listening.

Moreover, it has been noted that whereas Turkish to English translations seemed to lose clarity, the English to Turkish translations seemed to lose accuracy as exemplified in the following:

> *I crashed the car of my* brother-in-law *into the mosque's wall.* (the original sentence)
> *Kayınbiraderimin arabasını caminin duvarına çarptım.* (the translated sentence)
> *Eniştemin arabasını caminin duvarına çarptım.* (the intended sentence)
> *My* uncle *is a retired civil engineer.* (the original sentence)
> *Amcam emekli inşaat mühendisidir.* (the translated sentence)
> *Dayım emekli inşaat mühendisidir.* (the intended sentence)
> *She debated with her* aunt. (the original sentence)
> *Teyzesiyle tartıştı.* (the translated sentence)
> *Yengesiyle tartıştı.* (the intended sentence)

In this case, an interpreter or a translator may easily translate the intended Turkish sentences into English by means of hyponyms such as brother-in-law, uncle, and aunt; however, s/he cannot be sure about the intended sentence when translating from English into Turkish because it can be translated in two or three different ways, each one implying a different person. A similar thing occurs when the

Table 3 Some learner concerns related to the effect, if any, of lexical voids (in the family and relationships domain) on motivation

They tie my arms and legs, and make me blind and mute. I don't feel comfortable and confident when lexical voids are involved in my language
Lexical voids make my life harder by pushing me to say something in a much longer and complex way. My vocabulary knowledge is limited
It doesn't feel good to be aware that you are not exactly understood when you use substitute words, which makes you half willing to communicate
Why should I desperately try to be accurate with my translation while the implied meaning can never be accurate!
Family and relationships are an important topic for me. I need certainty and clarity while exchanging information about them
The general words in English comprise very few meanings in Turkish, which is easy in language production but insufficient in language perception
Being unable to communicate the implied meaning(s) certainly decreases my motivation in L2 communication
Lexical voids don't bother me as long as I need to comprehend detailed information on something or about someone
In a typical daily conversation in Turkey it is impossible to talk in English since the content is full of gossip related to family and relationships. So, why do I learn English if I can't gossip with my friend at home!
Lexical voids of family and relationships are not a problem for me, but when there is no exact translation of what I am trying to express and getting suddenly stuck with this really bothers me a great deal
Prolonging sentences in order to find solutions to lexical voids is not a solution. It is as silly as saying a sweet, crispy, hard, and juicy fruit instead of pear
I feel as if it is not the language that is inadequate but that I am non-proficient. It feels as if there should be necessarily an equivalent which I don't know. This shakes my confidence
Getting stuck with words makes me feel sick
Meeting lexical voids like *challenge* makes me feel scared, because I can't match their meanings with a word or concept in my L1

English *nephew* and *niece* are translated by a single word as *yeğen* into Turkish that might produce sentences as follows:

> *My* nephew *and* niece *go to the same school.*
> *Yeğenim ve yeğenim aynı okula gidiyorlar.* (translated version 1)
> *Yeğenlerim aynı okula gidiyorlar.* (translated version 2)

5   Conclusion

Words pertaining to family and relationships in English (and most western languages) do not convey the detailed information that Turkish words do. This is particularly important to bear in mind in translation and interpretation studies but it

is also relevant to the foreign language education field. English, as compared to Turkish, has a particularly noticeable lexical gap in the area of family and relationships but other cultural domains are affected. This can cause difficulties for oriental beginner and elementary FL learners and should be given extra consideration in creating learning materials and in teaching. If this is done it might improve student motivation. The main conclusions that might be derived from the current study can be stated as follows:

1. Texts produced by MT are semantically confusing for average Turkish learners of English, whereas texts that are produced by manual explanation and correction of the literal vocabulary are detailed and semantically clearer.
2. Learners are inclined to use online and Android translational tools to produce texts in L2.
3. Lexical voids discourage students.
4. Cultural issues and in particular families and relationships are among the easiest conversation topics for (oriental) L2 learners. However, this topic is made more difficult by the lexical voids in the English lexicon.
5. Generalisation is the preferred strategy for L2 learners producing texts but not when they are text recipients.
6. Whereas Turkish to English translations seem to lose clarity, English to Turkish translations seem to lose accuracy.

The question seems to be whether diverse national cultures can be mutually understood by international students through a lingua franca (Niżegorodcew, 2011). In other words: can English transmit clear and accurate information between eastern and western cultures or does it favour the western world and neglect the necessities that come with the eastern quality? What should be discussed is therefore whether the matter is "understanding others" or "knowing one another". It would not be possible to deny the necessity and utility of a shared language (or a lingua franca) for the improvement of globalisation but the lingua franca should be totally comprehensive by matching, coordinating, and stimulating clarified and accurate information among the users of the lingua franca.

Apparently, as is the example with words of family and relationships but also with other cultural vocabulary, which are not adopted and/or adapted by the English lexicon that is characterised as a lingua franca, but where words such as *selfie* are included in the dictionary entries; it might be possible to discuss that globalisation is not working properly in terms of linguistic improvement, because it seems to develop linearly from technologically dominant languages towards other languages, but not in a multidirectional manner. This manner recalls the influence of the positivistic approach that can also be observed in current global linguistic policy. Certainly, this stance is not in line with postmodern philosophical approaches. In addition, the so-called socio-cultural turn seems to have been converted into a *techno-social* one as it embraces technology more than culture.

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