

Introduction: Linguistic Landscapes in Language (Teacher) Education: Multilingual Teaching and Learning Inside and Beyond the Classroom



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Abstract In this introduction, I recall the main trends and evolutions in the conceptualisation and study of linguistic landscapes (LLs) and in language education studies that focus on the exploitation of LLs both as a pedagogical resource (especially in the language classroom) and approach in teacher training. The constituent chapters of the present book are situated at the intersection of three turns in applied language studies: the multilingual turn, the visual turn and the spatial turn. Following a detailed presentation of each section of the book and its chapters, I end with an acknowledgment of the potential of LLs for a more critical and agentic language education and teacher training.

Keywords Linguistic landscapes (LLs) · Language education · Multilingual education · Pedagogical translanguaging · Teacher education

1 Introducing Linguistic Landscapes as a Research Field in Education

The present volume, dedicated to the exploration of the linguistic landscape (LL) in educational and teacher training contexts, arises from the collaboration of the different authors within the LoCALL project—*Local Linguistic Landscapes for Global Language Education in the School Context*.¹ This project focused on the pedagogical use of LLs in formal language learning contexts in order to develop the language awareness of the target groups involved, and to open new tracks in teacher training for sustainable and structured approaches to working with linguistic diversity in society and with individual plurilingual competence. This book thus follows

¹ Erasmus + Project, developed between 2019 and 2022, with five participating universities: the University of Aveiro (Portugal), the Autonomous University of Barcelona (Spain), the University of Groningen (Netherlands), the University of Hamburg (Germany, coordinating institution), and the University of Strasbourg (France). More information at: <https://locallproject.eu/>.

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the ongoing expansion of studies about LLs in educational settings, while at the same time narrowing its scope to the field of language and teacher education.

At this point, it is important to consider the basic definition of LL. In a seminal paper from 2006, Gorter explains, “language is all around us in textual form as it is displayed on shop windows, commercial signs, posters, official notices, traffic signs, etc.” (2006a, p. 1). These everyday textual forms constitute the object of study for researchers interested in LL description and analysis. In their preface to Blommaert’s (2013) work, Pennycook et al. (2013, p. ix), indicate three driving factors in LL research:

- the growing attention to space and its subjective apprehension by those who inhabit it, reconsidering the term ‘context’ in studies in sociolinguistics;
- the development of studies in urban plurilingualism, from the perspective of linguistic ethnography, shifting the focus of observation from the mapping of linguistic diversity to the direct experience of this diversity;
- the focus on manifestations of public language policies, namely urban signage, and on signage options in different contexts.

The notion of LL has further expanded in conceptual and disciplinary terms, now embracing multiple sense-makers beyond written words and languages, in a more holistic, less logocentric understanding of individuals’ repertoires. Thus, I explain below how this notion now includes the domains of sound, and even tactile and olfactory LLs. In the same way, the study of LLs has gradually begun to integrate sign language. I then propose a review, necessarily circumscribed, of studies on plurilingual and multimediotic LL developed within the framework of different disciplines. I will focus, given the scope of the present work, on sociolinguistics and language education. After a brief presentation of the chapters that comprise the present book, I finish with my personal reading of the advances in the field of LL research.

2 Studying Linguistic Landscapes: The Evolution of the Field as Seen Through the Lens of Language and Teacher Education²

Following Gorter’s definition (2006a, 2006b) and studies that primarily considered language “around us”, Shohamy and Gorter define the LL more ecologically, considering it to include sounds, images and graffiti (2009, p. 4). The broadening of the field is indicated by the titles of some of the most popular collections published on the subject. Table 1 presents, without any pretension of exhaustiveness, books in English published from 2006 onwards.

Although they cannot give a complete overview of the evolution of studies about LLs (see Marten et al., 2012 for a synthesis of LL research first steps), and it is not

² Sections 2 and 3 of this introduction expand the synthesis presented in Melo-Pfeifer and Lima-Hernandez (2020).

Table 1 Selected publications in English

Year of publication	Title	Editors or authors
2006	Linguistic Landscape: A new Approach to Multilingualism	D. Gorter (ed.)
2007	Linguistic Landscapes: Comparative Study of Urban Multilingualism in Tokyo	P. Backhaus
2009	Linguistic Landscape: Expanding the Scenery	E. Shohamy & D. Gorter (eds.)
2010	Linguistic Landscape in the City	Elana Shohamy, Eliezer Ben-Rafael and Monica Barni (eds.)
2010	Semiotic Landscapes. Language, Image, Space	A. Jaworski & C. Thurlow (eds.)
2012	Linguistic Landscapes, Multilingualism and Social change	Ch. Hélot, M. Barni, R. Janssens & C. Bagna (eds.)
2012	Minority Languages in the Linguistic Landscapes	D. Gorter, H. Marten & L. Van Mensel (eds.)
2013	Ethnography, Superdiversity and Linguistic Landscapes. Chronicles of Complexity	J. Blommaert
2016	Negotiating and Contesting Identities in Linguistic Landscapes	R. Blackwood, E. Lanza & H. Woldemariam (eds.)
2019	Expanding the Linguistic Landscape. Linguistic Diversity, Multimodality and the Use of Space as a Semiotic Resource	M. Pütz & N. Mundt (eds.)
2020	Linguistic Landscapes. Beyond the Language Classroom	C. A. Seals & G. Niedt (eds.)
2020	Language Teaching in the Linguistic Landscape. Mobilizing Pedagogy in Public Space	D. Malinowski, H. Maxon & S. Dubreil (eds.)
2022	Linguistic Landscapes and Educational Spaces	E. Krompák, V. Fernández-Mallat & S. Meyer (eds.)

wise to judge a book by its cover, I nevertheless advance, from the titles listed above, the following observations:

- studies of LLs seem to start around issues related to social multilingualism, especially in urban contexts characterised by linguistic hyperdiversity;
- this is followed by a phase of complexification of those studies, extending the scope of analysis to the interaction of languages with more varied semiotic elements situated in time and space, in a more multimodal and complex approach;
- authors then focus more intensively on social issues along the lines of symbolic interactionism and on the way subjects live and contest their multiple identities;

- LL studies have more recently reached education and applied linguistics, in general, and language education, in particular, thus enabling a bridge between learning in formal and informal contexts, as is the case of the present volume. Krompák, Fernández-Mallat and Meyer have called this disciplinary move the “educational turn in linguistic landscape studies” (2022, p. 1), as a growing number of studies focus on ‘linguistic and semiotic educationscapes’. The present volume follows this move and discusses LLs as resources for teaching and learning as well as for teacher education.

This brief synopsis traces the evolution of the field in very broad terms and excludes pioneering studies in different strands. For instance, as early as 1991, Spolsky and Cooper had analysed the languages of Jerusalem, constituting a ground-breaking study in the field of urban sociolinguistics. From a language education perspective, Dagenais et al. (2009) and Clemente et al. (2012) carried out research on LLs in school settings at a relatively early stage in the evolution of such studies, demonstrating the benefits of engaging children as co-ethnographers in the discovery of the languages of their surroundings.

Whereas initial studies focused on the description and analysis of the different languages present in certain (usually urban) public spaces, often from a quantitative and synchronic perspective including an inventory of the respective languages, researchers have since highlighted the need to go beyond such an approach. Recent calls embrace more complex dynamics of languages across time and space from a diachronic and historical perspective. Also, those spaces of consideration now extend from the physical to the virtual (Androutsopoulos, 2020; see also Chik and McMonagle in this volume).

Similarly, as these developments suggest, the study of LLs no longer focuses exclusively on printed language displays, but rather on the interaction of symbols, materials, colours, shapes, sizes, fonts, materiality and agency, in a multimodal and multisemiotic (Jaworski & Thurlow, 2010; Pennycook, 2019, on LL as assemblages) or even multisensorial and synesthetic way (Paraguai, 2019; Pennycook & Otsuji, 2015; Prada in this volume). The linguistic repertoire thus meets the semiotic and sensorial repertoires in more recent studies. In these multifaceted perspectives, each element provides information that indexes each semiotic representation to a particular function in specific spaces and times. In other words, the mere counting of languages is not enough to illustrate the complexity, dynamics, tensions and dissonances present in LLs, rendering it necessary to analyse the ‘ordered indexicality’ and the ‘layered simultaneity’ of the various semiotic components observed and experienced (Blommaert, 2013).

In this sense, the LL comes to be understood as an artefact that translates the very materiality of multilingualism (Aronin & Ó Laoire, 2012), thus giving attention to a little-explored aspect: that of the ‘environment’ (as opposed to the more studied ‘subject’ and ‘language’ aspects). The authors classify the study of LL within the framework of the “multilingual material culture of places” (2012, p. 314), which will be handled in chapter “[Material Culture Inside and Beyond the Multilingual Classroom: Theoretical and Pedagogical Perspectives](#)” of this book.

In line with these advances, further studies explore the different materialities and spatialities of the LL: school LLs (schoolscapes; Androutsoupoulous & Kuhlee, 2021; Dressler, 2015; Gorter, 2017; Gorter & Cenoz, 2015; Szabó, 2015), domestic LLs (homescapes; Melo-Pfeifer, 2022) and food LLs (foodscapes, Krompák, 2018). It follows from these new designations that the current study of LLs goes beyond public spaces (see Benson, 2019 and Benson et al., 2019 for an overview) to embrace more diverse spatialities and resources (such as textbooks, Chapelle, 2020).

3 Multilingual and Plurisemiotic Linguistic Landscapes in Language Education

The first studies around LLs (e.g. Spolsky & Cooper, 1991) were developed in the context of sociolinguistics. However, in 2012, Shohamy and Waksman define this field as clearly multidisciplinary as it centres research issues around several human sciences. In sociolinguistics, studies investigate, broadly speaking, the “LL as a site of political discourses, which need to be deconstructed to make sense of the relationships between people, language(s), signs, space and power” (Hélot et al., 2012, p. 19). Or, following Shohamy and Waksman, “language in public space has become an arena of symbolic struggle and debate about participation and distribution of resources in cities, workplaces, schools, neighborhoods, national and global spaces” (2012, p. 111). This unequal distribution of languages in public spaces provides clues about the presence of different language communities, their hierarchies and respective status, their socio-economic occupations in the social fabric, their voice and, paradoxically, also their silence or silencing.

Notwithstanding this interest of sociolinguistics in LLs, Pennycook, Morgan and Kubota consider that “the benefits of LL research as an accessible pedagogical strategy should also be appreciated” (2013, p. ix), a call that was embraced by Badstübner-Kizik and Janíková (2018), Krompák et al. (2022), Krompák and Todisco (2022), Malinowski et al. (2020), Niedt and Seals (2020), among others. It is in this context that I consider the growing interest in applied linguistics, in general, and language education, more particularly, in the use of LLs in educational settings. Janíková (2018) situates the pedagogical interest in LLs in the ‘visual turn’ that the discipline is going through (see Kalaja & Melo-Pfeifer, 2019) and in the growing disciplinary interest in the development of students’ linguistic and cultural awareness, aesthetic competence and visual literacy. To this visual turn, I can add the multilingual and spatial turns (Brinkmann et al., 2022).

The use of LLs, whether in or out of the classroom, can be situated in the so-called ‘spatial turn’ (Benson, 2021; Kramersch, 2018) in language teaching/learning, where meaning is constructed and emerges in context, in a given spatial orientation, depending on individuals’ spatial repertoires. In English, the term ‘emplacement’ is used to refer to this role of space in the co-construction of meaning (Kramersch, 2018), as an index of contextualisation. Indeed, work with LLs highlights “the importance

of students' critical examination of texts and other semiotic resources within and across different spaces (e.g. classroom, home, school, communities, online) that are embodied, interactive, multimodal/multisensory, and that evolve over time" (Lozano et al., 2020, p. 19).

In the same vein, the multilingual turn in education (May, 2014) explains the growing interest in issues such as multilingualism as lived, multilingualism as embodied in personal experiences, or the implementation of multilingual pedagogies, not only in the language classroom but across the curriculum. The multilingual turn also explains a research agenda around (linguistic) justice in education (Piller, 2016), the decolonisation of the curriculum (Macedo, 2019) and the opening of applied linguistic perspectives to the Global South (Pennycook & Makoni, 2020), a metaphor to refer to the missing voices from marginalised communities around the globe. The combination of these turns entails consequences for teacher education, which have also been addressed. Hélot, Jannseens, Barni and Bagna, for example, claim that "learning to read the LL can be used as a means to understand power relationships between languages and literacies within society and to drive the attention of teachers who will necessarily operate in multilingual and multicultural schools not only to the material world of signs but also to the symbolic meaning communicated by them" (2012, p. 22).

Melo-Pfeifer and Silva (2021) categorise three uses of LL in the classroom, according to the linguistic approach (also Brinkmann et al., 2022):

- multilingual focus: the LL serves to raise learners' awareness of the linguistic and cultural diversity of their area of residence, region or country and of issues such as equity, resilience and language maintenance or language struggle; Clemente et al. (2012), for example, analyse how children develop their multilingual and symbolic competence and their ability to 'read the world' in the first year of Portuguese primary education.
- monolingual focus: the use of LLs serves to analyse the status, role or situation of a particular language in a particular socio-demographic and multilingual landscape, highlighting, for example, in which sectors of economic life that language is most present or where its vitality is most prominent; it may also serve to enhance, even incidentally, language learning at lexical and pragmatic level; this trend can be recognised in the "spot German" approach (Marten & Saagpakk, 2017) or in the pedagogical materials elaborated by Solmaz and Przymus (2021), for English as an additional language.
- mixed focus: the use of LL as a pedagogical object serves the two previous focuses.

Regarding the multilingual focus, for example, Dagenais et al. (2009) investigate how the use of LLs can contribute to the development of students' linguistic awareness through pedagogical work in the classroom. Dagenais et al. (2012) and Caillis-Bonnet (2013) propose the pedagogic use and curricularisation of LLs, analysing their potential as mirrors of societal multilingualism and leading children to reflect on their individual linguistic repertoires. More recently, in Higher Education, Elola and Prada acknowledge, in their action-research approach to the use of the LL in Spanish classes in Texas, that "LL-based pedagogies may provide students with a

toolkit to enhance their sociolinguistic awareness, develop a critical perspective on local/community languages in their area, and how these languages co-exist alongside official/majority languages” (2020, p. 223). These studies demonstrate the flexibility of LL use, with children, young people, and adults.

In addition to these uses, which can be considered within the sphere of pedagogical translanguaging (Cenoz & Gorter, 2022) and pluralistic approaches in teaching (generally from the ‘Éveil aux Langues’; see Candelier et al., 2007), as they aim to develop multilingual and intercultural competence, other studies use the LL as an additional input in the target language (Cenoz & Gorter, 2008), due to its potential as a “rich learning environment” (Ballweg, 2018). In terms of the monolingual focus, Lisek (2018) explores the use of Polish in the LL as authentic material to foster the learning of this language in academic and non-academic contexts in Germany, also by analysing teachers’ and students’ responses to the use of the LL in the classroom. Rowland (2013), focusing on English learning in Japan, maintains that pedagogical LL projects can be valuable to students in a variety of ways, particularly in the development of students’ symbolic competence and literacy skills. According to these studies, there are four spheres of pedagogical action in which the use of LLs can favour the learning of the target language: learning of linguistic elements, such as vocabulary, even if accidental; development of pragmatic skills; development of multimodal literacies; and development of competences in various languages (Cenoz & Gorter, 2008).

The use of LLs in the classroom enhances understanding of the synergies between formal and informal contexts of language learning and use (see, for specific examples, Araújo e Sá et al. 2022 and Carinhas et al. 2020), enabling a more authentic and less school-related contact with the so-called ‘target language’ or with linguistic diversity (Malinowski et al., 2020; Niedt and Seals, 2020; Tjandra, 2021). These publications allow us to postulate that it is possible to learn *with* the LL in immersion and *through* LLs by moving them into the classroom (Brinkmann et al., 2022). More specifically, Brinkmann et al. (2022) refer to the possibility of bringing the LL into the classroom through multimodal transposition, i.e., the capture of elements of the LL and its pedagogical use in the classroom, meaning a decontextualisation and recontextualisation of its elements with an educational goal. Other studies have exploited the potential of leaving space for the learner to analyse LLs outside the classroom and then discuss them in a formal context (Roos & Nicholas, 2019; Tjandra, 2021). Roos and Nicholas (2019), with a monolingual focus, studied how German primary school learners of English engage with examples of English that they were asked to identify in their local environments and describe their reflection skills in the classroom. Also in a study with children but combining a monolingual and a multilingual focus, Tjandra (2021) explores newcomer children’s perspectives and interpretations of their LL as they learn English in Canada. She examines the extent to which activities around LL influence these students’ language awareness and learning, their identity negotiations, and their sense of belonging.

4 Volume Overview

This book draws clearly on the works cited in the review presented in the previous sections and provides an international account of the use of LLs to promote multilingual education, from primary school to university to teacher education programmes. It brings the LL to the forefront of multilingual education in school settings and teacher education, thus expanding the disciplinary domains through which it has been almost exclusively studied: sociolinguistics, (urban) multilingual studies and social change, and language policy. The empirical studies presented in this book, while drawing on such multidisciplinary research to date, locate the LL in the field of language (teacher) education. Developed on five continents (in twelve countries), they illustrate how multilingual pedagogies can be enhanced through the use of LLs in mainstream education, while at the same time being beneficial to teacher professional development.

It has been argued that LL bridges formal and informal (language) learning settings. Nevertheless, the extent to which the pedagogical use of LL resources can benefit global citizenship, intercultural learning, language awareness and competencies in target (additional) languages, as well as develop teachers' professional identities, has been ill-researched, with little empirical evidence available to support those claims. Showcasing a wide variety of methodologies, including classroom observation, teacher and student inquiries, content and discourse analysis of teacher interviews and classroom interactions and documental analysis, this book provides the reader with closer analyses of school actors' discourses and practices around the use of LLs for pedagogical purposes.

The book acknowledges that linguistic landscaping (and also 'schoolscaping' and 'homescaping') can be a powerful starting point for evaluating and valuing the presence of various languages and linguistic resources in (second, additional or heritage) language teaching. As such, pedagogical work with LLs favours the development of multilingual, critical and plurisemiotic literacies, by actively engaging actors in discussions on language hierarchies and linguistic prestige, language comparison and language awareness, and translanguaging in public spaces. Concomitantly, the development of language skills and linguistic repertoires can be understood as byproducts of contact with such resources.

All chapters included in this book share the understanding that to cultivate global language education—a cross-linguistic and interdisciplinary education that promotes an identity that is open to linguistic and cultural diversity, thereby fostering lifelong learning—it is necessary to bring students' lifeworld and the multilingualism of the school into (additional) language teaching. This may assist the development of a sense of belonging through active participation in multilingual and intercultural spaces.

In the field of teacher education, a field of inquiry explicitly addressed in this book, it has been acknowledged that teachers develop a deeper understanding of pupils' plurilingualism (following Hancock, 2012) through the joint description and interpretation of the semiotic artefacts that surround them. Various contributions in

this book address issues of professional development, showing that work with LLs is beneficial to both the students and teachers.

The book is structured in four parts, according to the focus of analysis and contexts covered. The first part, entitled “The Exploration of Linguistic Landscapes in the Classroom”, comprises 4 chapters that deal with the integration of LLs as pedagogical resources, leading to the implementation of multilingual pedagogies from primary to higher education.

Monica López and Melinda Dooly, in their chapter “Languages around us: (in)visibility matters”, outline how a LL project in a primary school in Catalonia, Spain, aimed to raise young language learners’ (ages 10–11) awareness. The authors analyse quantitative and qualitative data from student output gathered during a LL project, aimed at promoting inquiry-based learning amongst the pupils. Through a series of guiding questions, the learners engaged in discovering ‘visible but not seen’ languages in their homes and communities. The learners’ discoveries were then used to develop a school project to make all the school languages visible to all.

In the next contribution, “Walking linguistic landscapes as ways to experience plurality. A visual ethnography into plurilingualism with elementary school children in Japan”, Mayo Oyama, Danièle Moore and Daniel Roy Pearce observe the development of creative plurilingual pedagogies based on the documentation of the local LL as ways to experience and reflect on plurality. Within a perspective where knowledge is grounded in experience and movement, they explore how learners aged 8–10 years go through a series of interdisciplinary activities and visits that focus on experiential social scientific inquiry. The tasks engaged children with multilingual writing practices, art and disciplinary learning. The research and inquiry-based methodology adopted a visual and sensory ethnography of/in movement, anchored in collaborative research-action. Multimodal data sources include child-and-researcher initiated visual documentation and reflective journals, digital photographs, teachers and researchers’ field notes and video recordings of children’s interactions.

Sonia Cadi, Latisha Mary, Maria Siemushyna and Andrea Young, in their chapter “Empowering pupils and raising critical language awareness through a collaborative multidisciplinary project”, present research on a LL project with a lower secondary school class (children aged 12–13) in the east of France. The project involved teachers from a range of subjects (French, sport, geography, maths, English, Latin) who collaborated to develop a multidisciplinary project focussing on the LLs of the school and local town, and raising children’s knowledge about language(s) through a process that centred them as key actors and decision makers. Based on observations and recordings of classroom activities, interviews with teachers and other educational actors as well as student’s written contributions, the authors discuss how such an interdisciplinary project can contribute to the construction of “interpersonal spaces of reciprocal empowerment between teachers and students” (Cummins, 2021), thus maximizing their “communicative potential” (García, 2009, p. 140).

In “Thinking allowed: Linguistic landscapes-based projects for higher-order thinking skills”, Klaudia Kruszynska and Melinda Dooly present data collected ethnographically during the implementation of a LL project in Catalonia, delivered

in a hybrid format due to the Covid-19 crisis. The project aimed to make 27 middle-school students more reflective about the LL in their surroundings by exposing them to the multilingualism in which they live and then encouraging them to explore their own linguistic ecology. The project also intended to prompt students to interrogate definitions of language in the hopes of expanding their conceptualisations towards the notion of language and engaging them in a sociolinguistic discussion on language hierarchies and linguistic prestige. The data for the analysis were gathered from a video recording of an English as a Foreign Language lesson and teacher's observations completed after LL project lessons. Taking an emic, qualitative approach, the authors address the principal question: Did LL projects help to connect foreign-language learning and language awareness through sociolinguistic discussions on language presence, hierarchies and dynamics in broader social contexts?

The second part of the book is called "Linguistic landscapes in multilingual learning and teaching environments" and includes three chapters exploring the use of LL as pedagogical resources connecting 'indoor' and 'outdoor' language learning environments. The authors explore analogue and virtual multilingualism in their 'visuality' and materiality, and address issues related to global citizenship, post-colonialism, and gamification.

Mónica Lourenço, Joana Duarte, Francisco P. Silva and Bruna Batista, in their chapter "Is there a place for global citizenship education in the exploration of linguistic landscapes? An analysis of educational practices in five European countries", address the potential of LL in contributing to global citizenship education, an educational perspective that aims to prepare students to fully embrace the opportunities and challenges of a globalised world. The study investigates whether, to what extent and how the activities designed and staged by the teachers in the different partner cities of the LoCALL project (see footnote 1) address topics, learning goals and methodological approaches aligned with global citizenship education. To do this, a qualitative methodology was adopted and a taxonomy for deductive content analysis was created drawing on key global citizenship education literature.

Perpétua Gonçalves and Manuel Guissemo, in "Linguistic landscape of Maputo: A space for a didactic exploration of multilingualism", investigate the multilingualism of Maputo's LL, taking into account linguistic and socio-cultural dimensions. Maputo, the capital city of Mozambique, represents a complex multilingual region of the Global South where, in addition to Portuguese as official language, several Bantu languages, English and, more recently, Chinese, play an important role in economic activities. Although Portuguese is the dominant language, all these languages are present in Maputo's LL. In this study, through a random collection of photos of the LL in urban scenarios, the authors show how the elements of 'grassroots literacy' (Blommaert, 2010) and the symbolic value of the languages in Maputo's LL can be taken into account as pedagogical resources for language teaching and teacher education.

In "The LoCALL app: a mobile tool to promote learning from and about linguistic landscapes", Margarida M. Marques, Mónica Lourenço, Lúcia Pombo, Alexandra das Neves, Dionísia Laranjeito and Filomena Martins explore how an app can create a bridge between pupils' plurilingual experiences and their multilingual learning

pathways at school. Firstly, the authors describe the app and the interface of game creation. Secondly, they analyse how a class of pupils of low secondary education (aged 11–13) explored this tool in the streets of Aveiro (Portugal), and collaboratively discovered and discussed the local LL. Interviews with participating teachers show that they perceive multiple benefits from working with LLs, ranging from enhanced language awareness, critical thinking, and activation of curricular and non-curricular knowledge.

The third part of the book, focusing on “Teachers and students’ voices on linguistic landscapes”, explicitly addresses the benefits of using LLs as a resource for learning and in teacher education programmes. The four chapters in this section predominantly focus on pre-service teacher education.

The chapter “Mediation of language attitudes through linguistic landscapes in minority language education”, by Joana Duarte, Sibrecht Veenstra and Nelly van Dijk, addresses the role of LL in the context of minority-language education, in Fryslân (the Netherlands). The authors explore how the integration of LL in Frisian-language education may lead to emancipatory ways of addressing minority/majority language representations and tensions among adolescents in urban areas of the province of Fryslân. In a multiple case-study design, the authors investigate how secondary school pupils (aged 15–17) in two schools engaged in inquiry-based research, analysing the LL in their school surroundings, and formulated language policy advice for their regional government.

In a chapter called “Teachers and students’ perspectives on the use of linguistic landscapes as pedagogic resources for enhancing language awareness: a focus on the development of cognitive and affective dimensions”, Lisa Marie Brinkmann and Sílvia Melo-Pfeifer crisscross teachers’ and students’ perspectives on the use of LLs as resources for language education. The authors observe how two teachers of French in German secondary schools integrate LL modules. Teacher and student perspectives on those implementations are then compared. This study highlights convergences and divergences between teachers, and between teachers and students, illustrating the pedagogical potential of a sociolinguistic object in formal language education settings, both for students and teachers, in urban and non-urban areas, for the development of their language awareness.

The chapter by Ana Isabel Andrade, Filomena Martins, Susana Pinto and Ana Raquel Simões focusses on the “Educational possibilities of linguistic landscapes exploration in a context of pre-service teacher education”. The authors claim the importance of developing teacher education programmes that privilege understanding of the (in)visibility of linguistic and cultural diversity and its valuation in educational contexts. Following this belief, the authors reflect on the potential of LLs as pedagogical context and pedagogical resource for initial teacher education. Trainee teachers’ representations are analysed around two categories: educational relevance of LLs and educational possibilities for the exploration of LLs. Data was collected through trainees’ written reflections regarding LL pedagogical projects for educational exploration. The analysis allows us to understand the pedagogical and didactic knowledge developed by trainee teachers when focusing on the concept of LL.

The final chapter of this section, by Maria Helena Araújo e Sá, Raquel Carinhas, Sílvia Melo-Pfeifer and Ana Raquel Simões, is called “The co-construction of the concept ‘linguistic landscape’ by language educators in an online course”. This contribution analyses teachers’ and mentors’ participation in an online teacher training event (one-week duration) about the use of LLs in language education. The authors examine how the participants collaboratively construct the meaning of ‘linguistic landscape’ in multilingual discussions around specific literature using the social e-reader Perusall. More specifically, the authors analyse how the participants dialogically expand or reduce the scope of the concept LL and appropriate it for pedagogical purposes.

The fourth part of the book, called “Expanding linguistic landscapes in education”, covers emergent perspectives on LL and beyond, such as sensescapes, the materiality of multilingualism, geolinguistic approaches to LL, and virtual LL.

Josh Prada, in the chapter “Sensescapes and what it means for language education”, lays out the groundwork to understand LLs from a perspective that encompasses multisensoriality. Based on the presentation of two *proyectos*, he discusses what the studies of LLs in language education have to benefit from integrating a sense-making viewpoint, understood in a cognitive and a sensorial way. The author ends with a reflection about the complementarity between studies focusing on the languages of LLs and those focusing on the sensory apprehension of LLs.

In “Theory and pedagogical perspectives on the use of material culture in the classroom: experiences in multilingual contexts of Israel and Russian Federation”, Larissa Aronin, Daria Bylieva and Victoria Lobatyuk address the material culture of the contemporary and highly multilingual world. Material culture includes LL as an important constituent but goes beyond it. According to the authors, material culture encompasses private and in-between spaces and possesses dynamic, portable and tangible dimensions. This chapter discusses the significance of material culture for acknowledging the benefit of superdiversity in education, in particular in additional-language classroom. Based on the theoretical postulates of the material culture of multilingualism and experiential data from Israel and the Russian Federation, the authors propose new methods and collaborative learning tools to be brought to the classroom. Among them, creating and manipulating external representations of individual dominant language constellations and the use of materialities in language classrooms of Saint Petersburg are described and their pedagogical implications discussed.

Alice Chik, in her chapter “The visibility of languages—connecting schools to communities”, proposes an alternate geolinguistics approach to the use of census and online public access information to map the new urban diversities of multilingualism. Following historical migration patterns, earlier multilingualism studies in Australia tended to focus on European language speech communities in specific locales. These studies created a public impression linking specific languages to certain neighbourhoods or ‘ethnoburbs’. This chapter acts first to demystify ‘ethnoburbs’ or homogeneity of speech communities, showing multiple scales of multilingual heterogeneity. Second, while census data reveal multilingual heterogeneity, the author shows the absence of online visibility of multilingualism on local institutional and

business websites. The chapter concludes with new directions for using a critical geolinguistic approach to make the school-community LL connection.

Sarah McMonagle explores (potentially) multilingual practices on social media in “Virtual linguistic landscapes from below: A hashtag analysis of the European Day of Languages”. The author aims to identify the diversity of languages used in Tweets about the European Day of Languages (EDL)—an annual event inaugurated by the Council of Europe to highlight and promote linguistic diversity in Europe as well as the importance of language learning. A corpus of tweets, compiled from the official EDL hashtag, is both quantitatively and qualitatively examined using a coding scheme for hashtag analysis. While it can be argued that virtual LLs (VLLs) present opportunities for language display not usually possible in physical LLs, not least as social media users co-construct the VLL in which they are active, tech company algorithms seem to determine the VLLs to which those same users are exposed.

The book ends with a contribution by Mónica Lourenço and Sílvia Melo-Pfeifer, titled “Conclusion: Linguistic Landscapes in Education—Where do we go now?”, in which they recall the main contribution of the present volume to the studies on LL and address LL as both a theoretical and an ethical lens for promoting multilingual education and translanguaging. They call for an understanding of LL attached to individuals’ material, sensorial, spatial, multimodal, and linguistic repertoires, issues that emerge from this volume and deserve a further conceptual expansion. Following from this holistic and integrated understanding, they propose future perspectives for research and practice on and about LL, focusing on epistemological, pedagogical and teacher education issues.

5 Synthesis and Acknowledgements

This book advances the field of LLs in language education and teacher education in many ways by underlining the value of interdisciplinarity, both in research and educational contexts. It shows the potential of LLs for multilingual education, both in language education across the curriculum and in teacher education programmes. It shows how LLs can help to promote and implement multilingual pedagogies in mainstream classrooms and thus to propagate pedagogical translanguaging as a resource for the critical teaching and learning of/about languages. A common strand in these studies is the acknowledgement that other—less logocentric and writing-oriented pedagogies—ways of teaching and learning languages are possible, based on discovery and creativity, on intervening, inventive and engaging pedagogies.

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