

# Educational Possibilities of Linguistic Landscapes Exploration in a Context of Pre-service Teacher Education



Ana Isabel Andrade, Filomena Martins, Susana Pinto,  
and Ana Raquel Simões

**Abstract** In a globalised world marked by the mobility of individuals from different linguistic and cultural contexts, it is important to educate future teachers for educational approaches to the linguistic and cultural diversity present in the landscapes that we observe and we live in. Therefore, it is essential to develop teacher education programmes that privilege understanding concerning the (in)visibility of linguistic and cultural diversity and its value in educational contexts. Such programmes may enhance teachers' contribution to the construction of fairer societies, by developing pupils' multiliteracy competences and language awareness. This study aims to reflect on the potential of linguistic landscapes (LL) as a didactical resource for educational purposes, in the context of initial teacher education at the Department of Education and Psychology of the University of Aveiro, Portugal. For that matter, student teachers' discourses are analysed in order to identify the effects of LL as an educational resource on their professional knowledge, namely concerning three dimensions: pedagogical and didactic, ethical and political, and linguistic and communicative. Data was collected by means of their pedagogical projects and written reflections regarding LL educational exploration. The analysis allows us to understand and discuss the teaching professional knowledge built by future teachers when focusing on the concept of LL. It also allows us to reflect on the capitalisation possibilities of this concept in pre-service teacher education contexts.

**Keywords** Teacher education · Linguistic landscapes · Teacher professional knowledge · Future teachers · Linguistic and cultural diversity

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A. I. Andrade (✉) · F. Martins · S. Pinto · A. R. Simões  
Departamento de Educação e Psicologia, Universidade de Aveiro, Aveiro, Portugal  
e-mail: [aiandrade@ua.pt](mailto:aiandrade@ua.pt)

F. Martins  
e-mail: [fmartins@ua.pt](mailto:fmartins@ua.pt)

S. Pinto  
e-mail: [spinto@ua.pt](mailto:spinto@ua.pt)

A. R. Simões  
e-mail: [anaraquel@ua.pt](mailto:anaraquel@ua.pt)

## 1 Introduction

Linguistic landscapes (LL) have been object of study in different fields, including education, due to their relevance in “reading” and understanding the world’s increasingly globalised communities. In this sense, it is important to build knowledge on how LL can be used in education and in teacher education contexts. This knowledge may be a valuable contribution to the reflection and construction of educational proposals that are more attentive to diversity and, therefore, more inclusive.

After framing the study presented here, which aims at clarifying the relation between LL and education, principles and practices of teacher education programmes for linguistic and cultural diversity education are presented. In a more concrete way, this study aims to reflect on the potential of LL as a didactical resource for educational purposes, in the context of initial teacher education at the Department of Education and Psychology of the University of Aveiro, Portugal. This case study, developed with future teachers enrolled in Masters programmes, uses a qualitative research methodology, analysing student teachers’ discourses in order to identify the educational relevance they attach to LL and the possibilities of its exploration for their own professional development. Data was collected by means of student teachers’ pedagogical projects and written reflections. The analysis allows us to discuss the integration of the concept of LL in the teaching professional knowledge of future teachers concerning three dimensions, identified in a framework of teaching competences for pluralistic approaches (REFDIC, Andrade, Martins & Pinho, 2019): a pedagogical and didactic dimension; an ethical and political dimension; and a linguistic and communicative dimension.

The discussion of the results highlights key aspects to be considered in teacher education programmes for linguistic and cultural diversity, ranging from an understanding of the concept and its educational relevance to experimentation, analysis and evaluation in real teaching and learning contexts.

## 2 Linguistic Landscapes and Education

Studies on LL articulate different knowledge domains and research approaches, from linguistic to social, urban or educational fields. These studies have increased in the past decades, since earlier research mainly occurred in the domains of sociolinguistics and literacy areas. In recent years, there has been a clear shift to an educational approach (Gorter, 2018). In fact, back in 1997, LL was defined as “The language of public road signs, advertising billboards, street names, place names, commercial shop signs, and public signs on government buildings” (Landry & Bourhis, 1997, p. 25).

Throughout the years, the concept of LL has been enlarged, comprising other elements which were not included before. In 2009, Shohamy and Gorter considered that LL “contextualizes the public space within issues of identity and language policy

of nations, political and social conflicts. It posits that LL is a broader concept than documentation of signs; it incorporates multimodal theories to also include sounds, images, and graffiti” (Shohamy & Gorter, 2009, p. 4). This definition shows a broader understanding of the concept and the object of study. Following this expansion agenda, Gorter (2013) emphasised that LL

should not limit itself to the study of written language and to the variation in text types, considering also images, colours and other visuals, as well as voices, music and sound and to dynamic changes in the physical (mainly urban) surroundings (p. 11).

The evolution of the concept of LL has led to research developed, for instance, on sounds in the landscape, i.e., ‘soundscapes’ (Scarvaglieri et al., 2013) or ‘sensescapes’ (Prada, 2021; see author’s contribution in this volume).

Several reasons for researching LL have been underlined by those studies: (i) the attention to space/context, since there is a growing observation of the surrounding space by the diverse individuals who inhabit it, reconsidering the use of the term “context” in sociolinguistics studies; (ii) the importance of experimenting and reflecting about diversity, shown namely by the development of studies on urban plurilingualism, from the perspective of linguistic ethnography, which shifted the focus from observing and mapping linguistic diversity to the direct experience of this diversity; (iii) the development of studies on urban plurilingualism, within language policy and planning, from the perspective of linguistic ethnography, shifted the focus from observing and mapping linguistic diversity to the direct experience of this diversity.

The relationship between LL and education is a relatively new field (Bolton et al., 2020), which means that its study in teacher education programmes is still a recent research topic. Concerning LL and education, we may consider two main target groups, learners and teachers. As far as learners are concerned, research shows that effectively exploring LL may develop language awareness, openness to languages and critical thinking skills (Clemente, 2017; Dagenais et al., 2009), as well as foster (incidental) language learning (Cenoz & Gorter, 2008; Rowland, 2013; Tjandra, 2021), develop intercultural awareness and understanding (Gorter & Cenoz, 2015) and promote multimodal literacy skills and text-to-world connections (Li & Marshall, 2018; Rowland, 2013). Thus, LL can operate as an educational tool for linguistic and political activism, by providing in-depth learning about cultural and historical meaning (Shohamy & Waksman, 2012).

Focusing on the relationship between LL and education as far as teachers are concerned, it must be underlined that research conducted with teachers is much scarcer. However, a few studies have shown that teachers realise the potential of exploring LL as a resource as well as an instrument for Foreign Language teaching and learning (Shang & Xie, 2020). LL also seems to promote student teachers’ awareness of linguistic diversity in the communities (Hancock, 2012) and help them understand, reflect about and co-construct language ideologies (Szabó, 2015). It is important to note that within teacher education, Hancock (2012) concluded that the act of investigating LL can potentially impact on student teachers’ worldviews, which may be meaningful in terms of their own professional development. Considering the potential for both learners and teachers, it is important to notice a recent study

which has shown that LL-related tasks can trigger reflection on issues like linguistic inequality or social justice, since LL are a way for teachers and pupils to conceptualise multilingualism in a more inclusive way (Lourenço & Melo-Pfeifer, 2021).

### 3 Teacher Education and Linguistic Diversity: Some Principles and Strategies

Teacher education programmes for future teachers must prepare them for increasingly complex working conditions. As the OECD report (2011) on teaching profession states, teachers must be prepared to equip learners with the skills they need to become citizens in the twenty-first century. They must be able to personalise learning experiences in order to prepare every student to succeed, and to cope with the increasing cultural and linguistic diversity of their classrooms and schools as well as differences in learning styles. They must also keep up with innovations in curriculum, pedagogy and the development of digital resources (Angel Gurría, Secretary-General, in Schleicher, 2011, p. 3).

In this sense, it is important to educate future teachers to value (near and far) linguistic and cultural diversity, preparing them to know how to educate their pupils to overcome linguistic and cultural barriers, building bridges between languages, cultures, individuals and communities (Andrade & Martins, 2017; Andrade et al., 2019; Andrade & Pinho, 2010; Ferrão-Tavares & Ollivier, 2010). Therefore, it is up to teacher educators and the educational situations for which they are responsible to convey a positive vision of linguistic and cultural diversity, showing that this diversity is an added value, enriching individuals and the contexts in which they circulate.

In general we can say that programmes educating to deal with linguistic and cultural diversity must be shaped by a socio-cultural understanding of learning, a lens through which we can frame student teachers' learning occurring in a social context, understanding learning as a process of mediation through interaction with other people, from other languages and cultures (Percy, 2014, p. 148). LL can be a powerful tool for educating to observe, to recognise and to value diversity in a process of teacher learning and professional development, recognising that we are in contact with diversity and this diversity is part of us and our societies.

## 4 Research Context and Methodology

### 4.1 Research Context

In order to educate for the valorisation of diversity, the University of Aveiro (UA, Portugal) offers in the Master's Programmes for Teaching (120 ECTS with 30% in *Practicum*) a Curriculum Unit on *Linguistic Diversity and Education* (from six to

eight ECTS) and the Curriculum Units of *Practicum* and *Seminar* which motivate future teachers to develop projects of education for linguistic and cultural diversity. In these pre-service teacher education contexts, student teachers carry out activities of information on the issues of linguistic and cultural diversity (e.g., reading of texts, research on world languages, etc.), observation (e.g., observation of urban and school landscapes), analysis of schools programmes and of curriculum, planning of activities and/or educational projects, experimentation and reflection on these projects and activities.

More concretely, activities of teacher education for linguistic and cultural diversity have the following objectives:

- To build knowledge about education for linguistic and cultural diversity, and how to integrate it into the curriculum;
- To critically and adequately use information and communication resources in the process of building knowledge about linguistic and cultural diversity education;
- To mobilise knowledge about linguistic and cultural diversity in developing teaching activities or projects with learners in schools;
- To evaluate the outcomes of teaching activities on diversity education in relation to learning;
- To collaboratively design an action research project integrating linguistic and cultural diversity in the school curriculum;
- To write an individual report on the developed action research project.

Within this teacher education path, future teachers carry out activities focused on: (i) individuals (monolingual, bilingual, plurilingual) and their linguistic and communicative development trajectories; (ii) contexts (educational, social, near, far, narrower and wider, ...); (iii) and on learning and teaching processes (design, development, assessment and reflection on lesson plans, educational interventions, didactic resources, projects, ...). Observing and analysing contexts integrates the topic of LL as to prepare future teachers for its educational exploration. In the academic year 2020/2021 students have participated in teacher education sessions of the LoCALL Project (<https://locallproject.eu/theproject/>) which offered activities for the educational understanding and exploration of LL.

## 4.2 *Research Methodology*

Against the previous background, a qualitative case study (Stake, 2006) was undertaken in the Department of Education and Psychology (DEP) of the UA (Portugal) in 2020–2021 which aimed to understand the effects of LL as an educational resource on pre-service teachers' professional knowledge, namely concerning three dimensions: pedagogical and didactic, ethical and political, and linguistic and communicative.

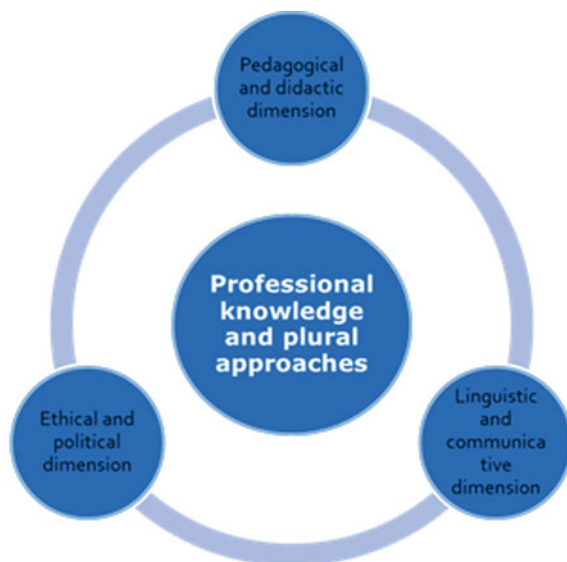
The study was developed in the three curricular units (CU) mentioned above which integrate Master's programmes of the DEP, where the concept of LL was introduced: *Linguistic Diversity and Education* (a CU attended by students enrolled

in diversified Masters in Teaching); *Practicum* and *Seminar* (attended by students enrolled in the Master in Teaching of English in Primary School, Master in Primary School Education and Portuguese and History and Geography of Portugal in the 2nd Cycle).

In what *Linguistic Diversity and Education* is concerned, it was attended by 17 students who were asked to develop pedagogical projects in pair work. Nine projects were conceived and analysed for the matter of this study. Concerning *Practicum* and *Seminar*, data were collected by means of individual written reflections from three future teachers: an English Foreign Language teacher (CA) and two generalist teachers (MB and RG), who introduced LL within their *Practicum* in primary schools with children aged 8–10 years old. These reflections, included in their *Practicum* Reports (PR), concerned the perceived results of practical activities on their professional knowledge and on pupils' linguistic, cognitive and affective repertoires.

Data (pedagogical projects and individual reflections) were submitted to thematic analysis (Clarke & Braun, 2013) according to the *Référentiel de compétences en didactique de l'intercompréhension* (REFDIC) (Andrade et al., 2019) which describes knowledge, skills, attitudes and values necessary for education professionals who intend to develop a plurilingual and intercultural education within a reflective approach. This framework was developed within the scope of the Miriadi Project (531-186-2012-FR-KA2-KA2NW) to assess and support the design of teacher education programmes for intercomprehension. Despite this focus, it has been used in teacher education programmes for other plural approaches (Andrade & Martins, 2018). REF DIC comprises three dimensions of teachers' professional knowledge which are described briefly below (see Fig. 1):

- the pedagogical and didactic dimension—comprising not only the declarative knowledge about the possible pedagogical-didactic approaches to educate for intercomprehension, plurilingualism and interculturality, but also the procedural knowledge that allows the conception, organisation, development and evaluation of educational practices related to this concept. It integrates the fields of information, planning, didactic action, evaluation and reflection on the educational work developed around intercomprehension. It highlights the importance of having didactic knowledge on plural approaches which requires knowing how to research, select, analyse, adapt and build suitable pedagogical-didactic resources. In this sense, it is expected that the (future) teacher will be able to stimulate linguistic reasoning, promote positive attitudes towards diversity and motivate for the development of plurilingual and intercultural competence (cf. Andrade et al., 2019);
- the ethical and political dimension—referring to the understanding of intercomprehension as a value and as a practice to be advocated and protected, in a world characterised by diversity and inequality. It comprises the importance of listening to the other, defending individuals' linguistic and cultural rights, combating prejudices and stereotypes about languages, cultures and peoples and defending linguistic-communicative justice and peace, recognising the importance of the



**Fig. 1** REFIDIC dimensions (in Andrade et al., 2019)

commitment of teachers towards intercomprehension as a way to value linguistic and cultural diversity and to ensure democracy (cf. Andrade et al., 2019);

- the linguistic and communicative dimension—referring to the development of an individual’s plurilingual and intercultural competence, who is committed to the learning of languages and cultures and who uses intercomprehension in this process throughout life. This dimension highlights the importance of analysing and reflecting on plurilingual and intercultural communication situations as self-training strategies which may lead to professional development, emphasising the importance of experiencing communication situations in which intercomprehension is used. It implies that the individual is committed to his/her training (cf. Andrade et al., 2019).

## 5 Findings

Findings are structured according to the three dimensions of analysis: (i) pedagogical and didactic dimension, (ii) ethical and political dimension and (iii) linguistic and communicative dimension. Within each dimension, data both from the pedagogical projects and individual written reflections will be presented and discussed and an account of students’ statements are exemplified by quotations.

## 5.1 Pedagogical and Didactic Dimension

All the nine pedagogical projects constructed by the students in the course unit *Linguistic Diversity and Education* refer to the pedagogical and didactic dimension which is the most prevailing in data. In this sense, all students mobilise the notion of LL in the planning of their projects in a more or less explicit way, conceiving projects to be developed in classes, schools, in nearby and/or distant localities and constructing pedagogical-didactic resources aimed at promoting positive attitudes towards linguistic and cultural diversity, as perceived in some of the learning objectives included in the projects: “Identify the multiplicity of languages around” (Group 1); “Think critically about the different cultures around them, more precisely at school, in order to understand that by getting to know the other, they are at the same time building a fairer and more inclusive society” (Group 2); “Recognise the importance of linguistic and cultural inclusion at school, promoting respectful attitudes” (Group 6).

In this line, all students identify LL as an educational resource, using it to educate for linguistic and cultural diversity, namely promoting the observation and valuation of the world’s linguistic and cultural diversity by pupils and educational communities, and promoting the inclusion of other speakers in schools and communities. Within this, and based on an analysis of their intervention contexts, student teachers are aware of the need to mobilise pupils’ linguistic and communicative repertoires and involve different actors—pupils, teachers, and families—in activities related to awareness of linguistic and cultural diversity. Moreover, some student teachers show declarative knowledge about LL and associate concepts with approaches to education for diversity, namely with the development of plurilingual and intercultural competence.

In spite of this, the analysis of the pedagogical projects show that students have some difficulties in relating theoretical concepts such as LL with didactic principles and in stating clearly the educational potential of LL. Moreover, it is important to underline that there is a lack of reflection on the potential of LL on their professional development which may be justified by the fact that these projects were not implemented in educational contexts, being a first approach to the concept of LL.

Regarding the written individual reflections, involved teacher students mobilise the concept of LL in their practices with Primary School children, showing an understanding of the relationship of LL with an education for diversity. They plan, implement and evaluate their projects centered or encompassing LL exploration, using diversified pedagogical resources and classroom strategies, in transversal and interdisciplinary approaches (especially in the case of generalist teachers). They provide children with opportunities to contact with languages and develop critical thinking skills, multimodal literacy skills and values (inclusion, equity).

As it happens in the pedagogical projects planned by the students in the course unit *Linguistic Diversity and Education*, in the individual reflections the pedagogical-didactic dimension is also clearly the predominant one, both from the perspective of interdisciplinary curriculum development, and from the perspective of developing



didactic and professional knowledge. LL appears as a resource and a tool for the integrated development of learning processes in different curricular areas.

The pedagogical-didactic dimension is central to MB and the concept of LL is a leit-motif for an interdisciplinary curriculum approach and for the construction of professional knowledge, organising the curricular insertion of the LL in her own teaching context:

One of my major objectives was to design a project that would meet the pupils' curriculum [...] I intended this project to be interdisciplinary and generate a transversal knowledge to all curricular areas. Thus, the areas of Portuguese Mother Tongue, Mathematics, History, Geography, Citizenship and Development and Artistic Expressions were involved. (PR-MB)

MB evaluates her didactic work and reflects on its impact on pupils' learning, valuing the results obtained:

I felt that the pupils started to think more deeply and meaningfully about linguistic and cultural diversity. The fact that many pupils had never left the country [...] never had realised how many languages exist in their city (pupils realised that languages are not static and do not exist only in a given territory). (PR-MB)

RG also alludes to the educational potential of LL, namely in changing pupils' representations about languages and places, including the languages of their city:

Throughout the project the pupils had contact with other languages and cultures, [...] they had the opportunity to speak with people from different nationalities [...]. It is noteworthy that children learned to say and write more words in other languages [...] I think they will now see the city in a different way. (PR-RG)

Their pedagogical projects show that the concept of LL allows developing the curriculum in an interdisciplinary way, involving different curricular areas, adding the possibility of a work on language(s), in their multimodality, developing pupils and pre-service teachers' pluriliteracy where critical thinking skills and the recognition of the visibility/invisibility of languages and cultures in the city are included. By analysing the reflections of these three pre-service teachers we can see that their main concerns are the curriculum, the contents, the learning strategies and the motivation for learning. In their projects, LL appears as a resource, but also as a didactic instrument at the service of an education for diversity (of spaces, languages, individuals, forms of expression and their relationships) and as an opportunity for collaborative construction of didactic knowledge, through experimentation and searching for educational innovation.

## ***5.2 Ethical and Political Dimension***

Five of the nine pedagogical projects outlined by the student teachers in the course unit *Linguistic Diversity and Educations* show an understanding of the ethical and political dimension of LL pedagogical exploration, associating it with the promotion of social inclusion and respect for linguistic and cultural diversity, that is, with social

justice and linguistic rights. This is mainly perceived in projects' aims ("The aim of this project is to promote social inclusion, in line with Portuguese legislation that seeks to make diversity a wealth", Group 2). Furthermore, in those five projects, there is a recognition of the role of educational contexts in expanding individuals' linguistic landscapes and in contexts' linguistic and cultural enrichment, as perceived in the following example:

It is at school that children develop the skills necessary to face the current world, recognising their language and identity, learning to respect the Other and recognising that the world is vast and diverse. (Group 3)

In all the nine projects it is possible to observe that there is an understanding of the relationship between individuals' life stories and the need for educational communities to value them, integrating diversity and promoting diversified educational landscapes. In this sense, students inscribe LL in the framework of a democratic education.

Regarding the written individual reflections, this dimension is present in the discourse of the three pre-service teachers. They understand the ethical and political dimension of LL pedagogical exploration, committing themselves to democratic language education and to the respect for linguistic rights in the projects undertaken with pupils:

It is important to make pupils think, reflect and deepen knowledge and to develop skills and dispositions of critical spirit in relation to what is diverse and/or different within the community, contributing to the education of conscious and responsible citizens. (PR-CA)

The pupils realised that in the city there are inhabitants of different nationalities and what their difficulties are. (PR-RG)

We also need to have a critical sense, reconciling it with our creativity and desire to innovate practice, enabling pupils to be more aware of citizens and respectful of differences. (PR-MB)

These pre-service teachers understand the relevance of promoting pupils' creative and reflexive thinking skills, namely about Otherness, contexts, languages (their roles and status), as well as the importance of deconstructing pupils' stereotypes. They reveal concern with education for diversity and a more inclusive LL. The projects they implemented during the *Practicum* aimed to broaden pupils' linguistic repertoires and to develop critical thinking skills related to the role of languages in the city, including the deconstruction of stereotypes and the mobilisation for an intervention in LL and the involvement in didactic/educational paths of joint demand of solutions to problems of today's world.

The awareness concerning the importance of the didactic work developed from and about LL helps these pre-service teachers understanding the importance of "felicidadania" [happiness + citizenship] (Rios, 2001), as a global citizenship which involves understanding the world, reflecting on the possibilities of improving reality in search of a common wellbeing (happiness). As MB writes at the end of her PR:

I am very happy to have managed to involve the pupils so much, to have made them the biggest stakeholders, to have allowed them to feel proud of the path that, together, we have taken. I

am sure that none of them will look at cities in the same way. I am sure that what they have learnt throughout the pedagogical project will continue to accompany them, contributing to their education as citizens of a global world. And that is what fulfills me the most. (PR-MB)

### 5.3 *Linguistic and Communicative Dimension*

Regarding the linguistic and communicative dimension, in pedagogical projects (course unit *Linguistic Diversity and Education*) students show an understanding of the need to develop linguistic and communicative competences in pupils but they do not refer to it as part of their professional knowledge.

In the written individual reflections, the linguistic and communicative dimension seems to be implicit in all the didactic work developed by the student teachers, who do not seem to feel the need to go into it in depth. In fact, this dimension appears in the CA's PR associated with the project objectives:

[...] develop children's linguistic-communicative repertoire in English (- Know and identify vocabulary in English LE, related to the topic under study; - Understand instructions given to complete small tasks; - Express themselves appropriately in simple contexts; - Interact with the teacher and peers in simple communicative situations, previously prepared, obtaining and providing information). (PR- CA)

In MB's PR the linguistic and communicative dimension is also linked to the objectives of the didactic intervention project, but besides the development of pupils' knowledge about linguistic and cultural diversity and its presence in the LL, MB also reflects on the knowledge regarding language awareness and LL as a metatext:

.. pupils have realised that LL is very important since it reflects how a city is organised and prepared to welcome migrants and tourists from other countries, in what ways different languages are present in the landscape of a place and why there are places that have road signs in many languages and others do not. (PR-MB)

It is also in the objectives of the project that we can find this dimension in RG's PR (broadening pupils' linguistic repertoire and critical thinking skills related to the role of languages in the city), for example when she writes:

The learners created linguistic elements they would like to add to Aveiro's LL aiming to make immigrants feel integrated in the city. It should be noted that the pupils wrote signs in different languages such as Mandarin, French, Spanish and Ukrainian on the elements they would add to Aveiro. The pupils had a strong connection with diversity when they interviewed guests of different nationalities [...] they learned about the concept of LL and wrote words and sentences in other languages. Another gain was that they understood the difference between a tourist and an immigrant. (PR-RG)

Thus, the linguistic-communicative dimension is associated with the pedagogical-didactic dimension because it is in the teaching practice, or in other words, it is in the development of learning activities of the pedagogical LL project and in the creation of different resources for the development of the curriculum contents. This allows to observe the development of the student teachers' plurilingual and pluricultural competence.

When referring to the *practicum* internship, CA states that it allowed her to realise how imperative it is that programmatic content can be articulated with transversal/current themes of society—preparing the pupils “for life in society, as active and responsible citizens”, and she mentions some activities she developed with the pupils:

Simultaneously with the learning of English as a foreign language, in the classroom context, the pupils looked for different languages in the linguistic landscapes present in their homes, more specifically in products/packaging: it was a very enriching activity in terms of contact with different languages, many of them previously unknown to the children. (PR - CA)

In spite of the fact that all these dimensions were somehow developed by student teachers, data analysis shows some relevant differences between those attending the CU *Linguistic Diversity and Education* and the pre-service teachers’ written reflections in the ambit of *Practicum/Seminar*. The latter reflect more deeply on the potential of LL on their professional development, relating more easily theoretical concepts to didactic principles and teaching practice and stating clearly the educational potential of LL. These differences are justified the following way: while in the CU *Linguistic Diversity and Education*, the future teachers had a first opportunity to be in touch with the concept of LL as a curricular content and idealised pedagogical projects which were not implemented in educational contexts, the pre-service teachers in *Practicum/Seminar* had already attended the CU *Linguistic Diversity and Education* wherein they conceived pedagogical projects and within *Practicum/Seminar* they had the opportunity to mobilise and reconstruct LL concept in practice, i.e., they had the possibility to implement LL projects in schools and to reflect about their potentialities.

## 6 Concluding Remarks

This study aimed to understand and discuss the effects of LL as an educational resource on the construction of pre-service teachers’ professional knowledge concerning three dimensions: pedagogical and didactic, ethical and political, and linguistic and communicative. For this matter, we analysed nine pedagogical projects developed by future teachers attending the curricular unit *Linguistic Diversity and Education* and individual written reflections of three preservice teachers enrolled in *Practicum/Seminar*.

Results show that both in the pedagogical projects constructed by future teachers in the CU *Linguistic Diversity and Education* and in the pre-service teachers’ written reflections in the ambit of *Practicum/Seminar*, LL is perceived as an educational resource that impacts mainly on the pedagogical and didactic dimension of professional knowledge. In this way, students perceive LL exploration as a way to educate for linguistic and cultural diversity within transversal and interdisciplinary approaches, promoting the observation and appreciation of the world’s linguistic and cultural diversity by pupils and educational communities. This identification

makes them mobilise this notion in the planning and evaluation of their pedagogical projects, which is perceived in learning outcomes, activities, didactic strategies and pedagogical resources conceived.

The process of design, development and evaluation of the didactic projects allowed the future teachers to develop multiple competences related to teacher education principles and strategies underlined above: observation, understanding intervention and reflection. Hence, the concept of LL allowed a (re)construction of knowledge related to the pedagogical and didactic dimension and allowed student teachers to understand the importance of openness and commitment to the promotion of linguistic and cultural diversity. Moreover, the projects developed by them highlight the LL educational potentialities insofar as they allow the development of multiliteracies competences.

Concerning the ethical and political dimension, results highlight that student teachers relate LL pedagogical exploration with democratic language education, social justice and linguistic rights, referring specifically to social inclusion and a broad respect for linguistic and cultural diversity. Accordingly, they emphasise the role of diversified educational actors in the promotion and protection of diversity and diverse educational landscapes, as ways of making the world better, attaching teachers, pupils and families an ethical responsibility in this endeavour.

Regarding the linguistic and communicative dimension, student teachers do not deeply reflect on it regarding the development of their own professional knowledge. This may happen because within their didactic action, naturally, they focus on pupils and on the need to develop their linguistic and communicative competences. This dimension is, thus, implicit and profoundly related to the pedagogical and didactic dimension, notwithstanding the fact that the future teachers need to become more aware of the process of developing their own plurilingual competence, reconstructed within the teacher education process. In fact, the reverse is true: the linguistic-communicative dimension is at the service of a didactic dimension centred on the desire to put into practice knowledge built from and about LL.

Hence, in spite of the different teacher education stages and paths in which students were involved, the results show positive indicators that LL can be an educational resource to be mobilised in a more sustained way in professional life, influencing and enriching pre-service teachers' professional knowledge.

In terms of recommendations for pre-service teacher education contexts, we identify the need for teacher students to experiment the potentials of LL in real educational contexts, for example in research-action activities and pedagogical projects. This experimentation may provide opportunities for teacher students to reflect on their pupils' interaction with different LL, developing pupils' knowledge, skills and attitudes towards languages and diversity and becoming engaged in promoting pupils' understanding and awareness of linguistic rights and democratic values.

As a final remark, we conclude that student teachers realise the potential of exploring LL as a resource and a learning tool, integrating this concept into their pedagogical repertoire. They are aware of the presence of linguistic diversity in communities, including schools, and this awareness helps them to reflect on the ethical and political dimension of their practice which needs a more continuous feedback throughout their learning process of teaching practice. It seems, however,

that it is necessary to return to the theme of LL in recurrent teacher education activities, deepening the knowledge on the concept and the practices it may mobilise in the construction of knowledge on teaching and learning contexts, in order to better prepare teachers to linguistic and cultural diversity in a globalised society.

Further research is required to understand whether pre-service teachers' perspectives have an impact on their future teaching knowledge, namely in terms of creating a supportive school environment, working with and valuing linguistic and cultural diversity and connectedness to pupils' "lifeworlds".

## References

- Andrade, A. I., & Martins, F. (2018). Educação global e diversidade linguística na formação inicial de educadores e professores: da intervenção à (auto) reflexão. *Indagatio Didactica*, 10(1), 47–62. <https://doi.org/10.34624/id.v10i1.12973>.
- Andrade, A. I., Martins, F., & Pinho, A. S. (2019). Un référentiel de compétences en didactique de l'intercompréhension–REFDIC. *EL.LE*, 8(1), 253–264. <https://doi.org/10.30687/ELLE/2280-6792/2019/01/010>.
- Andrade, A. I., & Pinho, A. S. (Eds.). (2010). *Descobrir a intercompreensão: Alguns itinerários de autoformação*. Universidade de Aveiro.
- Andrade, A. I., & Martins, F. (2017). Desafios e possibilidades na formação de professores—em torno da análise de relatórios de estágio. *Educar Em Revista*, 63, 137–154. <https://doi.org/10.1590/0104-4060.49134>.
- Bolton, K., Botha, W., & Lee, S.-L. (2020). Linguistic landscapes and language contact. In R. Hickey (Ed.), *The handbook of language contact* (pp. 281–300). Wiley-Blackwell.
- Cenoz, J., & Gorter, D. (2008). The linguistic landscape as an additional source of input in second language acquisition. *IRAL—International Review of Applied Linguistics in Language Teaching*, 46(3), 257–276. <https://doi.org/10.1515/IRAL.2008.012>
- Clarke, V., & Braun, V. (2013). Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. *The Psychologist*, 26(2), 120–123. <https://uwe-repository.worktribe.com/output/937596>
- Clemente, M. (2017). *Paisagem linguística urbana—o caso de Aveiro e sua relevância educativa*. [Doctoral thesis, Universidade de Aveiro]. Repositório Institucional da Universidade de Aveiro <https://ria.ua.pt/handle/10773/22801?mode=full>
- Dagenais, D., Moore, D., Sabatier, C., Lamarre, P., & Armand, F. (2009). Linguistic landscape and language awareness. In E. Shohamy & D. Gorter (Eds.), *Linguistic landscape: Expanding the scenery* (pp. 253–269). Routledge.
- Ferrão-Tavares, C. F., & Ollivier, C. (Coord.) (2010). O conceito de intercompreensão: origem, evolução et definições. *REDINTER-Intercompreensão*, 1. <http://www.redinter-intercompreensao.eu/numeros-publicies/numero-1>
- Gorter, D. (2013). Linguistic landscapes in a multilingual world. *Annual Review of Applied Linguistics*, 33, 190–212. <https://doi.org/10.1017/S0267190513000020>
- Gorter, D. (2018). Linguistic landscapes and trends in the study of schoolsapes. *Linguistics and Education*, 44, 80–85. <https://doi.org/10.1016/j.linged.2017.10.001>
- Gorter, D., & Cenoz, J. (2015). Linguistic landscapes inside multilingual schools. In B. Spolsky, M. Tannenbaum, & O. Inbar (Eds.), *Challenges for language education and policy: Making space for people* (pp. 151–169). Routledge.
- Hancock, A. (2012). Capturing the linguistic landscape of Edinburgh: A pedagogical tool to investigate student teachers' understandings of cultural and linguistic diversity. In C. Hélot, M. Barni, R. Janssens, & C. Bagna (Eds.), *Linguistic landscapes, multilingualism and social change* (pp. 249–266). Peter Lang.

- Landry, R., & Bourhis, R. Y. (1997). Linguistic landscape and ethnolinguistic vitality: An empirical study. *Journal of Language and Social Psychology*, 16(1), 23–49. <https://doi.org/10.1177/0261927X970161002>
- Li, J., & Marshall, S. (2018). Engaging with linguistic landscaping in Vancouver's Chinatown: A pedagogical tool for teaching and learning about multilingualism. *International Journal of Bilingual Education and Bilingualism*, 23(8), 925–941. <https://doi.org/10.1080/13670050.2017.1422479>
- Lourenço, M., & Melo-Pfeifer, S. (2021). *Linguistic landscapes as a pedagogical tool for plurilingual education and global citizenship*. Paper presentation at the International Conference on Foreign Language Learning. University of Lisbon, Portugal.
- Peercy, M. M. (2014). Challenges in enacting core practices in language teacher education: A self-study. *Studying Teacher Education*, 10(2), 146–162.
- Prada, J. (2021). *From landscapes to sensescapes: the implications of translanguaging for linguistic landscapes research* [Conference session]. 2nd LoCALL Trainign week, YouTube From Landscapes to Sensescapes. [https://www.youtube.com/watch?v=JW3MCZcft\\_4&list=PLQr6fAO8AbiaefOI23ekVpbivB9U1kr45&index=3](https://www.youtube.com/watch?v=JW3MCZcft_4&list=PLQr6fAO8AbiaefOI23ekVpbivB9U1kr45&index=3)
- Rios, T. (2001). *Compreender e ensinar: por uma docência da melhor qualidade*. Cortez Editora.
- Rowland, L. (2013). The pedagogical benefits of a linguistic landscape project in Japan. *International Journal of Bilingual Education and Bilingualism*, 16(4), 494–505. <https://doi.org/10.1080/13670050.2012.708319>
- Scarvaglieri, C., Redder, A., Pappenhagen, R., & Brehmer, B. (2013). Capturing diversity: Linguistic land and soundscaping. In I. Gogolin & J. Duarte (Eds.), *Linguistic superdiversity in urban areas: Research approaches* (pp. 45–73). John Benjamins. <https://doi.org/10.1075/hsl.2.05sca>
- Schleicher, A. (2011). Building a high-quality teaching profession: Lessons around the world. *OECD Report*. <https://doi.org/10.1787/9789264113046-en>
- Shang, G., & Xie, F. (2020). Is “poor” English in linguistic landscape useful for EFL teaching and learning? Perspectives of EFL teachers in China. *International Journal of Applied Linguistics*, 30(1), 35–49. <https://doi.org/10.1111/ijal.12258>
- Shoamy, E. G., & Waksman, S. (2012). Talking back to the Tel Aviv Centennial: LL responses to top-down agendas. In C. Hélot, M. Barni, R. Janssens, & C. Bagna (Eds.), *Linguistic landscapes, multilingualism and social change* (pp. 109–125). Peter Lang.
- Shohamy, E., & Gorter, D. (Eds.). (2009). *Linguistic landscape: Expanding the scenery*. Routledge.
- Stake, R. (2006). *Multiple case study analysis*. The Guilford Press.
- Szabó, T. P. (2015). The management of diversity in schools: an analysis of Hungarian practices. *Apples—Journal of Applied Language Studies*, 9(1), 23–51. <http://apples.jyu.fi/article/abstract/353>
- Tjandra, C. (2021). Supporting newcomer children's language awareness, incidental language learning, and identity negotiation through the multilingual linguistic landscape: An exploratory case study. *The Canadian Modern Language Review*, 77(1), 1–22. <https://doi.org/10.3138/cmlr-2019-0060>

**Ana Isabel Andrade** is Full Professor of Language Didactics at the University of Aveiro (Portugal), where she also supervises student teachers' internships in local schools. She has been directing different master and Ph.D. thesis and she is author and co-author of several papers. She has participated and coordinated national and international projects on teacher education, linguistic and cultural diversity, and plurilingual education.

**Filomena Martins** is an Assistant Professor at the University of Aveiro (Portugal). She has participated in national and international projects concerning teacher education and language education, linguistic diversity, plurilingualism and intercomprehension. She is an author and co-author of several papers and supervised master and Ph.D. thesis in the field of teacher education and plurilingual education.

**Susana Pinto** is a Researcher at the University of Aveiro (Portugal), in the Research Centre Didactics and Technology in the Education of Trainers, where she is conducting a project on supervision and research across languages and cultures. She is the Coordinator of the Laboratory of Education in Languages.

**Ana Raquel Simões** is an Assistant Professor at the Department of Education and Psychology (University of Aveiro, Portugal). Her areas of interest and research are intercultural education, plurilingualism, digital citizenship education, teacher education and EFL teaching to young learners. She is part of the coordination board of CIDTFF (Research Centre Didactics and Technology in the Education of Trainers).