

An Educational Perspective on Community Languages in Linguistic Landscapes: Russian and Arabic



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Abstract This chapter brings a fresh view on engagements with linguistic landscapes as learning environments and learning tools through the lenses of language and literacy studies and community-based language learning. We discuss the local linguistic landscape as naturally occurring and strategically constructed linguistic and semiotic representations of community languages and cultures. This approach highlights the link between learners, texts, social practices, and social environments, involving both dominant and minority community languages.

The chapter focuses on the multilingual multimodal linguistic landscape involving two local immigrant community languages, Russian and Arabic, in Tucson, Arizona, a city in the southwest of the United States. It shows how the linguistic landscape, as a fusion of the social space and a social practice, stimulates language learning through everyday social experiences, and how these social experiences can integrate with the learning process. We discuss how engagements and interactions with both the linguistic landscape and the representatives of those language communities as sign makers and sign readers, reinforce negotiation of linguistic and cultural meaning of the linguistic landscapes. Thus, the local linguistic landscape as a learning tool and discursive space, inspires the exploration, production, and interpretation of public signs, offers a learning context, and stimulates language and cultural learning in naturally occurring contexts.

Keywords Russian · Slavic · Arabic · Multimodality · Community languages and cultures · Multilingual competence · Multilingual and multicultural awareness · Learning environments · Informal learning

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1 Introduction¹

Community languages and cultures offer linguistic and semiotic representations incorporated in local linguistic landscapes. This chapter brings attention to engagements with linguistic landscapes as learning environments and learning tools through the lenses of language and literacy studies and community-based language learning. It opens novel perspectives on linguistic landscapes as learning environments in the naturally occurring contexts and practices of everyday life. It stresses the links between learners, texts, social practices, and social contexts. It explores and highlights the dynamics of these relationships across time and space, and socio-cultural contexts in particular, involving both dominant and minority community languages. Our chapter focuses on the multilingual multimodal linguistic landscape involving two local immigrant community languages, Russian and Arabic, in Tucson, Arizona, a city in the southwestern United States (for another example of linguistic landscape-related work in Tucson, see Ruvalcaba & Aguilera, “[A Collaborative Asset Mapping Approach to the Linguistic Landscape: Learning from the Community’s Linguistic Capital in an L2 College-Writing Course](#)”, this volume).

It shows how the linguistic landscape, as a fusion of the social space and a social practice, stimulates language learning through social experiences, and how these social experiences integrate with the learning process. We discuss how engagements and interactions with both the linguistic landscape and the representatives of those language communities as sign makers and sign readers reinforce negotiation of linguistic and cultural meaning of the linguistic landscapes. Thus, the local linguistic landscape offers a context, a medium, and a texture for the exploration, production, and interpretation of the signs, while serving as a learning tool and discursive space. The chapter also explores how the local linguistic landscape provides strategically constructed social and learning environments which support economic, cultural, and linguistic contacts in the local community.

2 Linguistic Landscape and Language and Literacy Learning

Recent Linguistic Landscape (LL) scholarship shows that linguistic and semiotic landscapes have become a valuable resource for language and literacy development, multimodal and multilingual awareness, and intercultural competence (Bever, 2012, 2015; Bever & Richardson, 2020; Cenoz & Gorter, 2008; Dagenais et al., 2009; Gorter, 2018; Malinowski, 2015; Malinowski & Tufi, 2020; Sayer, 2010; Shohamy & Gorter, 2009). These studies apply to various dimensions of LL research, demonstrating that multilingual and multimodal texts in linguistic and semiotic

¹Note, the data for this chapter were collected and analyzed prior to the outbreak of the Russian-Ukrainian conflict that started in February 2022.

landscapes provide a broad range of learning and teaching opportunities, contribute to the development of linguistic, communicative, and symbolic competence, and reveal a complex relationship between the learners, the text, and the social world. Bever (2012), drawing on new literacies, biliteracy, and environmental print studies (Barton & Hamilton, 1998; Goodman, 1980; Hornberger, 1989, 2000; Hull & Schultz, 2001), explores the importance of multimodal textual forms, languages, and prints outside of the formal schooling domain, and the resourcefulness of the immediate surrounding contexts for language and literacy education. These multimodal and multilingual texts contribute to a better understanding of the “cultural, symbolic, informational and communicative aspects of texts” and strengthen the “connectedness between a learner, community and everyday context” (Bever, 2012, pp. 336–337).

Cenoz and Gorter (2008) have suggested the careful selection and contextualization of authentic textual representations from the linguistic landscape for foreign language learning settings where an immersive approach to the linguistic landscape is not possible. This could be accomplished by curriculum developers, instructors, or learners themselves and can include examples collected by study abroad participants and brought back to the home university or school (see, e.g., Richardson, 2020; Ritchey, “[Building the Politeness Repertoire Through the Linguistic Landscape](#)”, this volume). Some studies (e.g., Sayer, 2010) have investigated the potential of linguistic landscapes in language learning, particularly in the field of English as a Foreign/Second Language (EFL/ESL). Rowland’s (2013) study on engagements with the linguistic landscape strengthens the idea that visual input from the linguistic landscape benefits critical thinking and critical literacy development in language learners. Those studies show how linguistic landscape activities can be better integrated in the FL curriculum in order to encourage the learners to interact not only with the target language and culture, but with the various other languages used in the linguistic landscape in their classrooms, daily lives, and virtual realm.

Bever and Richardson (2020) argue that in linguistically and culturally diverse contexts—both local and global—it is helpful to use linguistic landscapes for language, culture, and literacy education. They present a case of literacy-based language teaching and learning in relation to the German language as a foreign, study abroad, and community and minority language. In their instructor-guided classroom- and community-based research study, they use examples of linguistic landscapes collected by university students to show how the incorporation of linguistic landscapes into a foreign language curriculum reinforces pedagogical activities and educational practices, and provides a critical link between the learner, the space and place as a social, ideological and discursive process. This involves applying creative, analytical, and critical thinking about language use, and raising awareness about the multilingual and multicultural world as an essential component of learning and teaching.

While specifically focusing on the German linguistic landscapes in Tucson, Arizona, Bever and Richardson (2020) note that the local linguistic landscape in general is a tool and a resource for literacy-based language education. They reaffirm the view that “visual literacy environment is a useful starting-point as it provides

evidence of a range of literacies”: the visual “traces of literacy practices” point to various kinds of social activities and social relations (Barton & Hamilton, 1998, pp. 42–43). These involve the notion of ‘literacy as social practice’ (Barton & Hamilton, 1998), critical, reflective, and multilingual awareness, and engagement and participation in community social, cultural and economic life. The social and cultural accounts of language and literacy learning point to linguistic landscapes as a valuable source of “socially-, historically-, and culturally-situated” texts (Kern, 2000, p.16), and address the linguistic landscape as a communicative, cultural and discursive space (Bever, 2012, 2015).

The fusion of the linguistic landscape with language and literacy studies can be viewed also through Kern’s (2000) influential seven principles of literacy: interpretation, collaboration, conventions, cultural knowledge, problem solving strategies, reflection and self-reflection, and language use. This is in line with what Kramsch and Whiteside (2008) call “the ability to shape the multilingual game in which one invests [...] to reframe human thought and action” (p. 667), meaning that language learning involves navigating and reshaping the complex, multifaceted multilingual spaces in and out of the classroom.

The following discussion explores how engagements with the local linguistic landscape through daily interactions with multilingual and multimodal signs navigate, facilitate, stimulate, and enrich the opportunities for linguistic and cultural learning (Bever, 2012, 2015; Bever & Richardson, 2020; Blommaert, 2013, 2014; Jaworski & Thurlow, 2010; O’Connor & Zentz, 2016). It offers a perspective on the links between learners, texts, social practices, and social context through the lens of community-based language learning (Clifford & Reisinger, 2019), suggesting that the local linguistic landscape serves as a solid teaching and learning tool, based on the authenticity of the relationship and engagements with the local language communities.

3 The Current Project

The present study emphasizes that in informal learning contexts the linguistic landscape is a valuable tool for multilingual and multicultural learning and development in minority and community languages, where the demographic, sociolinguistic, and sociocultural composition of the community resembles those in a particular sign. In addition to the linguistic and cultural inputs such as those presented in this study, the linguistic landscape provides language learners with an opportunity to express their insights and their vision of the target communities. In Bourdieu’s (1989) sense, the space “is the system of relations,” spatial, linguistic, ideological, and discursive, where perception of the social world should be viewed as “the construction of visions of the world which themselves contribute to the construction of this world,” and “the vision that every agent has of the space depends on his or her position in that space” (p. 18). The concept of the “habitus, as a system of schemes of perception and appreciation of practices, cognitive and evaluative structures” captures the interrelations between the person, the action, the social position, and the social

world (Bourdieu, 1989, p. 19). On this view, signs reflect social positioning and stimulate the sign makers and a business owners' role as social actors. Hence, this involves a production of social spaces that enable social relations spatially, temporally, materially, and linguistically. This social positioning is facilitated by the multimodal representation of a sign and the social actors acting on it.

Our discussion below on engagement with the linguistic landscape offers perspectives on the relationship between language learning, literacy practices, text, space, and place. It unpacks the complex relationship between “verbal and material ingredients in the multilingual object” (Aronin & O’Laoire, 2012, p. 310), brings attention to bivalency as a point of convergence of languages and scripts (Bever, 2012), and expands the research on community languages, superdiversity and linguistic landscapes (Blommaert, 2013). It stresses that the exploration and negotiation of textual forms, semiotic, linguistic and material resources, discursive practices, and human activities (Scollon & Scollon, 2003) stimulates learners’ creative and analytical thinking, and emphasizes learning as a living process across languages, texts and contexts.

4 Geographical and Cultural Context

Tucson, Arizona is a borderland city in the US Southwest with around one million inhabitants historically dominated by Spanish, English, and English-Spanish bilingualism. Along with ongoing immigration from Mexico and South America, in the 1980s–2000s, a wave of new immigrants and refugees from Middle Eastern, Asian, African, Post-Soviet and East European countries settled in Tucson, resulting in a noticeable diversification of the sociolinguistic composition of the city ethnically, linguistically, and culturally (<http://www.rispnet.com/>). Formerly known as a predominantly Mexican-American city, today Tucson is a multilingual and multicultural community, with historically established dominance of English, Spanish, and indigenous languages, and diverse populations represented by much smaller groups of linguistic and cultural minorities (<https://statisticalatlas.com/metro-area/Arizona/Tucson/Languages>). As if to illustrate this diversity, a sign (Fig. 1) welcomes Mexican and Arabic-speaking immigrants to Tucson in three languages: Spanish, English and Arabic, raising awareness in the local population about the respective community dominant and/or minority language - speaking population. The message in English is in the central position in this sign (Kress & Van Leeuwen, 2006), serving as a dominant and a unifying language of the community, and providing an English translation of the other two community languages.

Another example reflecting multilingual and multicultural Tucson is a sign (Fig. 2) with the name of the [Holocaust History Center at the Jewish History Museum](https://www.jewishhistorymuseum.org/) (<https://www.jewishhistorymuseum.org/>). The word “Holocaust” here appears in five languages: from top down – Hebrew – line 1, Yiddish – line 2, English – line 3, Russian – line 4, and Spanish – line 5; and two scripts – Cyrillic (for Russian) and Roman (for four other languages). It uses the Hebrew and Yiddish

Fig. 1 A trilingual sign welcoming immigrants and refugees to Tucson community



Fig. 2 A multilingual sign of the Holocaust History Center at the Jewish History Museum in Tucson, AZ



words for 'Holocaust' written in the Roman alphabet, and keeps its original form for two other languages, Russian and Spanish. This sign contains both informational and symbolic values: it acknowledges the local languages and the international multilingual community of Holocaust victims and survivors in the World War II. Similar to the sign in Fig. 1, "Holocaust" in English is in the central position and in a larger font, serving as a unifying language and raising awareness about the Holocaust locally, nationally and internationally.

Among relatively recent ethnic and linguistic minorities in Tucson are the Arabic and Russian-speaking populations. It is important to stress that both Russian- and

Arabic-speaking language communities are not monolithic, but rather heterogeneous with complex linguistic and cultural backgrounds. This heterogeneity is conditioned by geographical regions and geopolitical divisions, languages and dialects of their former countries. The critical factors of these sociolinguistic complexities also include race, ethnicity, mother-tongues, language policies, languages of education, political and religious affiliation (e.g., secular, Muslims, Russian orthodox, Jews), socioeconomic status, and educational levels. Further critical forces affecting the sociolinguistic profiles of groups and individuals are the lengths of stay in the US and other countries before their final arrival in the US; family and individual strategies in relation to language maintenance and language use; language transmission across generations; and language shift (Hornberger, 1989, 2000; Aronin & O’Laoire, 2003).

In Tucson, it is possible to meet a person from Uzbekistan, a former Soviet republic and later an independent post-Soviet country, speaking Russian, Uzbek, Tatar, and English. One can also meet a person from Egypt, Libya and other North African countries, speaking respective local languages and dialects, modern and classic Arabic, French and English. These multilingual speakers are not equally proficient in all of the languages of their linguistic repertoire: code switching and translanguaging practices are common in their everyday language use (Abourehab & Azaz, 2020). In this local US context, Russian and Arabic have become markers of unified sociolinguistic identities for those who represent the Russian- and Arabic-speaking worlds, or have cultural, linguistic, or ethnic affiliation with those languages and cultures.

Therefore, along with English and Spanish as dominant languages in the Tucson linguistic landscape (Przymus & Kohler, 2018; Ruvalcaba & Aguilera, “A Collaborative Asset Mapping Approach to the Linguistic Landscape: Learning from the Community’s Linguistic Capital in an L2 College-Writing Course”, this volume), some other minority languages (e.g., German) have also been historically integrated in the local linguistic landscape (Bever & Richardson, 2020; Richardson, 2020). Russian and Arabic, relatively recent immigrant community languages, also appear in the local linguistic landscape, but more uniquely linked to the community and religious services, particular businesses, educational and social programs, and are especially prominent in ethnic restaurants and ethnic stores.

5 Community Languages, Linguistic Landscape, and Social Practices

5.1 The European Market and Deli

Community languages such as Russian and Arabic are visible mainly in signs associated with private businesses, social services, and educational settings. Traditionally, private ethnic stores and restaurants serve as prominent spaces for exhibiting multilingual and multimodal signs, promoting not just their products and goods, but

linking customers to the community languages and cultures. While the linguistic landscape of an individual store can be viewed as “a synchronically observable space” (Blommaert, 2013, p. 69) at first, its multilayered linguistic landscape shows arrangements and configuration of signs and cultural artifacts signaling historicity, visible and invisible traces of activities, ideologies and discourses. It requires “deep ethnographic immersion” (Blommaert, 2013, p. 108) to unpack and interpret complexities of representations of multimodal textual forms of the linguistic landscape by addressing linguistic, cultural, material and semiotic nature of signs.

The European Market & Deli (<http://europeanmarketandeli.com/>) was opened in 1999 and is owned by an English-Ukrainian-Russian-speaking family who emigrated to the US in the 1980s from Ukraine. The store serves a diverse population from all over Tucson, specializing in Ukrainian, Russian, Slavic and East European cuisine. It offers foods and a variety of gifts and souvenirs associated with Russian, Byelorussian, Ukrainian, Jewish, Polish, Romanian, Czech, Serbian, and many other European-American cultures and heritages. The store sells a wide assortment of cookies, chocolate, buckwheat, farmer cheese, herrings, and other food items popular among those communities. It provides a welcoming, friendly, and casual atmosphere, serving as a cultural and linguistic anchor to many Russian and non-Russian speaking customers.

The store’s name above the front door, appears as a monolingual sign in English (Fig. 3), identifying the nature of the store, and addressing the diverse local



Fig. 3 A monolingual front door sign of the European Market store



Fig. 4 The lunch menus

community. There are other signs inside the store appearing in English. Figure 4 exhibits two handwritten signs in English with the daily lunch menus from the deli inside the store, offering traditional ethnic Russian and East European food. The names of the Russian dishes translated into English are on the left side, and the Greek menu, also in English, is on the right. Beside the lists of the dishes and prices, these daily menus contain personal notes with clarifications “Borsch (Russian red soup)”, instructions and greetings: “Don’t forget to check out our menu”, and “Enjoy a cold beer with your lunch!”. These menus appeal to the diverse clientele and signal the local, international, and ethno-cultural traditions and cooking practices.

The overall multimodal LL of the store exhibits a constellation of languages and scripts with Russian and Slavic dominance (Fig. 5). Inside the store, the food items, their labels and logos, images, languages, scripts, and cultural artifacts show the convergence of East European and US cultures and consumer atmosphere. The store sells many Russian posters and folk cultural artifacts, such as traditional hand-crafted multicolored Matryoshka nesting dolls, Khokhloma wood boards, trays, and spoons with traditional Russian hand painted red, black, green and gold flower patterns, Russian samovars (tea kettle), and other items historically and linguistically associated with Russian, Slavic, Soviet and post-Soviet cultures. This complex environment offers what Aronin and O’Laoire (2012) call “an additional avenue in multilingualism studies, that of material culture” (p. 315), suggesting that materiality of cultural artifacts offers an authentic source for multilingual development. The dominance of Russian and Slavic linguistic and semiotic properties in the linguistic landscape allows the construction of an imaginary Slavic world for Russian language learners (Bever & Richardson, 2020), an imaginary homeland for the Russian-speaking immigrant community (Woldemariam & Lanza, 2015), while maintaining connections to the local and global cultures (Blommaert, 2013). Along with giving a visibility and a voice to the minority language community, this unique local place can stimulate and serve both incidental and instructor-guided learning by providing associations with and representations of material, cultural, linguistic and semiotic



Fig. 5 The Russian and Slavic cultural artifacts

forms of the target language and culture. While the store's linguistic landscape is a complex, multilayered and multidimensional space with ongoing negotiation of linguistic and semiotic properties of the ethnic, national and global cultures, services and goods, it provides exposure to the imaginary yet authentic Russian and Slavic world through presented complexities of relevant authenticity and diversities.

5.2 *The Caravan Market*

Arabic language and culture in Tucson are especially prominent in the signage of ethnic stores and restaurants offering traditional cuisine and services. A representative example of this linguistic landscape is displayed in an ethnic store owned by a local immigrant Arabic-speaking family for three decades (Fig. 6). This store is well known by the local community for selling Middle Eastern and Mediterranean ethnic food, produce and cultural artifacts, "centered around Mediterranean food, which includes cuisines from Libya, Syria, Jordan, Iraq, Palestine, Lebanon, and North Africa" (<https://tucsonfoodie.com/2018/02/07/caravan-market-caravan-grill/>). It offers a wide variety of items from cuisines from all over the world, attracting customers from diverse local ethnic communities and speakers of dominant and



Fig. 6 A front sign of the Caravan store

minority languages, including English, Spanish, Arabic, Persian, Russian, Polish, and Ukrainian, among others. On a daily basis, the store environment and its linguistic landscape represent a vibrant multilingual and multicultural space, where spoken and written languages, cultures and various modes of communication are interwoven in business transactions with diverse customers.

Multilingual and multimodal linguistic landscapes inside and outside the store present a constellation of signs containing many languages, images and scripts, which provide a rich array of products associated with the brands, producers, and distributors from all over the world, and indexing a complexity of the sociolinguistic composition of the local and global communities. The signs include the store name, hours of operation, information about particular products, price tags, logos, labels, and advertisement posters. The store's name (Fig. 6) appears in a multimodal bilingual sign in English and Arabic and with Roman and Arabic scripts, artistically arranged above the front door, and signaling multiculturally assorted products.

6 Discussion of a Particular Sign with an Array of Russian, English, and Arabic

Among the many signs in this store, a particular private sign (Fig. 7) stresses the significance of this study from LL, literacy, and educational perspectives. This sign shows the juxtaposition of three languages (English, Arabic, and Russian), and corresponding scripts (Roman, Arabic, and Cyrillic). It is a 'bottom-up' sign that was first observed inside this store in 2015. It has hand-written text on a standard letter

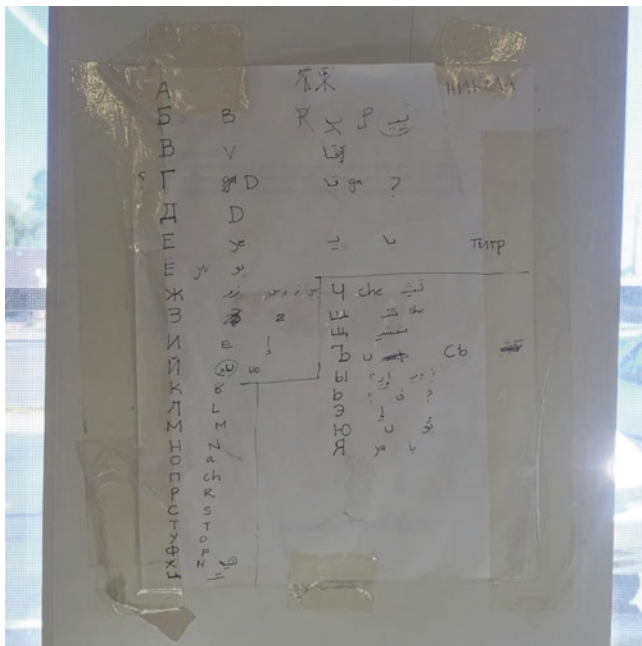


Fig. 7 Array of Russian, English, and Arabic Orthographic Symbols. (© Copyright 2015 Olga Bever. All Rights Reserved)

size page of white paper attached to the window near a cashier. Unlike other signs in this store that contain business-related information (e.g., the hours of operation, close/open signs, price tags, etc.), this particular sign contains Cyrillic alphabet organized in two columns and Roman and Arabic individual letters or sequences of letters next to it. It also has a few words written in Russian sporadically on the page.

This self-made sign (Fig. 7) uses three languages and scripts and highlights how the multilingual and multicultural resources of individuals are interwoven with the multilingual and multicultural composition of the local and global communities linguistically, socially, and culturally. It shows how a sign maker creates interconnected social, economic, interpersonal, and linguistic spaces by employing orthographic representations of particular languages to deliver the pronunciation in a target language. The sign maker uses his lifespan skills and experiences with the local and global communities and employs available multilingual resources to create a sign that facilitates and mediates his own learning how to read signage in a target language. Thus, the sign maker becomes a language learner himself. In this example the sign maker and the learner are the same person, who was interviewed informally.

Not only does this sign signal a complexity within ethnic, linguistic and cultural settings such as this one, but it also suggests a path to literacy in a target language through creating an array of symbols in order to learn how to read another array of

symbols. It displays how an adult learner, who is also a business owner and a sign maker, uses the LL to develop and display his reading/decoding skills in a target language and to express his attitude towards the target language and its speakers. The juxtaposition of three languages, English, Arabic and Russian, and corresponding scripts, Roman, Arabic and Cyrillic, serves as a learning tool, a cultural and linguistic mediator, and reflects the coexistence and cultural and linguistic inclusion of diverse language groups in the local community.

To explore the forces behind this sign, we apply Sebba's (2007) view that writers may deviate from established conventions of spelling and create their own unconventional forms that "have, or may have, a symbolic significance which the conventional forms do not" (p. 4). Sebba (2007) raises questions about what lies behind the writer/author's choice, what the symbolic power of a given context is, and what stimulates the sign maker socially and culturally towards making a particular language choice. This resonates with Ben-Rafael et al.'s (2006) discussion of code choice in signs, and Malinowski's (2009) issue of "authorship", which involves the question of who, why, and what forces, intentions, and motivations are involved in designing and producing a particular sign.

The sign displays the Russian orthographic symbols at the left side of each column. To decode these symbols, the sign maker yielded to a complementary distribution of English and Arabic symbols to better understand the system underlying these symbols. In some situations, he selected a different symbol in what seems to be a trial-and-error strategy. Importantly, when the Roman selection did not seem to be a good candidate, he resorted to Arabic, the language he reads and speaks fluently. In situations in which the Russian sound was hard to render in a single equivalent in English, Arabic sound combinations were used instead (e.g., /ya/ and /yi/). Also, to better represent the fine-tuned features of certain sounds (e.g., front /a/ versus deep /a/ and long versus short vowels), the learner exploited the possibilities available in his first language, Arabic. For example, the *alif* and the *alif maddah* were candidates for the Russian /A/. The choices the sign maker made reflect a reasonable degree of linguistic awareness of Arabic and English, which represent the linguistic sources he uses to learn the Russian sounds.

An informal interview with the store owner illuminated the purpose and process of creating the sign. The store owner explained that the sign was created and placed here for his own learning of how to pronounce the Russian letters and "how to read" the product labels written in Russian (Fig. 8) and to enhance his communication with Russian-speaking customers. He acknowledged his multilingual background that involves four languages: Amazigh (North African Language), Arabic, French and English, and the Arabic and Roman scripts that are part of his everyday life. He thus knows how to read labels in other languages, but Russian labels are the most difficult for him, because they appear in a Cyrillic script that is both unfamiliar and very different from other scripts.

He developed and applied his own strategies of how to learn to read those labels. First, he used the Google translator on his iPhone to listen to a pronunciation of each letter of the Russian alphabet. Then, based on what he heard, he created and assigned the pronunciation of each Russian letter by using the Roman and Arabic letters to



Fig. 8 Products with Russian names in Cyrillic (*tvorog* – farmer cheese; *grechka* – buckwheat)

deliver a corresponding sound. As a result, he created a sign containing the Cyrillic alphabet with the corresponding phonetic representation of the Russian letters by using English and Arabic, thus matching the pronunciation of the Russian sound with the corresponding sounds in the other two languages. The juxtaposition of three alphabetic languages (Russian, English, and Arabic) and three corresponding scripts (Cyrillic, Roman, and Arabic) in the sign facilitates learning the pronunciation of the products with Russian labels and enhances the possibility for verbal interaction between store employees and Russian-speaking customers.

In order to learn how to read in Russian, the store owner had to attend closely as a learner to the appearance of the Russian letters and words on the labels and logos of the products in the store (e.g., chocolate, canned fish, buckwheat, herrings, etc.). In order to decode those texts, he had to draw on his reading strategies and creativity from his existing knowledge of English and Arabic phonetic and writing systems and then apply this knowledge in order to better understand the alphabetic principle and phonetic representations of the Russian language. Here, the learning process has become a creative process of designing a learning interface embedded in the linguistic landscape text on the window. Thus, the linguistic landscape has created the space for motivating, mediating, and facilitating the learning process of writing and pronouncing the equivalents of the phonological systems of Russian using English and Arabic.

This discussion shows how a particular sign observed inside the store displays the traces of individual steps to literacy, empowers multilingual and multicultural awareness, and enriches the linguistic and cultural repertoire of the sign maker. Following Sebba's (2007) perspective on the role of orthography in society, we argue that the linguistic landscape as a social practice "is bound up with other

practices to do with literacy, which are themselves embedded in the social and cultural practices of a society or group” (p. 24). Thus, the multifaceted character of the linguistic landscape might be determined by the kinds of social practices it is embedded in and is a part of as well as the literacy practices for which it is designed.

During our regular visits to the store as customers, we observed a mutual understanding between the owner and the Russian-speaking customers asking about traditional Russian products like *tvorog* (Russian version of the farmer cheese), *seledka* (herrings) or *grechka* (buckwheat). Although they were conversing in English, the Russian lexemes were inserted in sentences like: “Do you have fresh *seledka*?” or “Where is *grechka*?” This code-switching on a lexical level addresses symbolic, social, and informational values of a given interaction, fulfilling the communicative, social and economic needs of the interlocutors.

While serving as a learning tool, this sign emphasizes a space for interpersonal communication, and facilitates the link between the speakers of Russian (customers) and Arabic (the store owner and employees). It also defines the social relations between sign makers and customers, using the learning of Russian pronunciation as a means for the local and international market and consumers to adapt and integrate. It indexes linguistic and cultural capital, the co-existence of particular linguistic and cultural groups in the local community, and reinforces linguistic and cultural awareness of the store employees and their clientele.

As an experienced multilingual, the store owner employs his multilingual competence and makes his own orthographic choice of what language and script to use for each letter. He develops his own pathway to literacy in a target language using multiple literacies: economic, digital, communicative, and linguistic. He demonstrates consistency and creativity in transforming one kind of literacy into another and makes literacy transactions by shaping and reshaping the sign and his skills. In learning the Russian alphabet, he was focused specifically on the phonetics of Russian, English and Arabic, and the way their letters or the sequences of the letters stand for the corresponding sounds. As a sign maker, he exhibited his prior knowledge about how the languages work in relation to the writing systems and sound correspondence. He applied his metalinguistic and phonemic awareness and multilingual competence to learn how to decode and read the text. The sign on the store window was used as a basic strategy toward literacy in a new language, i.e., the strategic approach of producing a sign in the linguistic landscape in order to read the linguistic landscape.

One of the critical issues in LL studies that is relevant to this case is the “authorship” of a sign, that is, the question of who, why, and what forces, intentions, and motivations are involved in designing and producing a particular sign. Malinowski (2009) views authorship in the linguistic landscape as complex, from both a discursive and agentive perspective with a sign being a product of human activity, producing meanings for a reader, and being a part of contextual and discursive practices. The social forces behind the linguistic code choice in the linguistic landscape are typically characterized in LL literature as “top-down” or “bottom-up,” i.e., whether sign production can be attributed to official institutions or non-official, privately

owned businesses (Ben-Rafael et al., 2006; Gorter, 2006). Parallel to Malinowski (2009), in our case, the multilingual and multimodal signage inside and outside of the store unpacks the symbolic and indexical meaning for the readers to support the business and maintain the relationship with the customers. However, the sign has multiple roles: it serves as an educational device helping the store owner to learn an additional language and additional script, thereby furthering his multilingual competence; it also mediates the owner's multilingual language proficiency, and as an outcome it facilitates the relationship between the owner and the customers.

7 Conclusions and Pedagogical Implications

Engaging with diverse multimodal and multilingual environments represented in the linguistic landscape provides a wide range of opportunities for a learner to connect to, affiliate with, and navigate numerous social, cultural, linguistic, and economic spaces. Analyzing linguistic landscapes through the community-based language and literacy learning lenses, demonstrates how local ethnic communities offer multiple linguistic and semiotic representations incorporated in the local linguistic landscape. It shows how the engagements and interactions with both the linguistic landscape and the representatives of those communities as sign makers and sign users reinforce negotiation of linguistic and cultural meaning of the linguistic landscapes. This kind of analysis of the linguistic landscape of the Russian and Arabic stores illustrates that there are various trajectories and outcomes of engagements with the linguistic landscape that provide social and discursive spaces and serve as a learning tool that evokes various learning strategies to negotiate linguistic and cultural meanings. They enable incidental, self-guided, and instructor-guided learning activities informally with authentic learning environments, where language and culture immersions occur naturally: this learning can occur through self- or instructor-guided observation, exploration, and analysis of the surrounding linguistic landscape, applying various learning strategies for navigating educational and social spaces.

Our analysis supports the views that “learning occurs ... in nonformal or informal settings every day” and that “learning is seen as being essentially driven by learners” (Quigley, 2005, pp. 324–325). The examples emphasize the linguistic landscape as a forceful learning environment and a learning tool. They show a sign maker as a particular learner and a social actor, who embodies the process of creating, reshaping, and facilitating the learning environment and empowering learning using his own linguistic resources. By establishing and exploring relationships between the linguistic landscape, learners gain exposure to experiences and contexts of learning that become powerful tools in multilingual language and literacy development (Bever, 2012, 2015; Bever & Richardson, 2020).

Our example makes a case that confirms the perspective that the linguistic landscape is a useful factor and a powerful force in developing linguistic and cultural awareness, multilingual competence, and multilingual and multicultural awareness.

Immersion in an everyday social context stimulates the learner/sign maker to create a text which mediates the learning process by drawing on linguistic and cultural awareness and employing alphabetic, phonetic, graphemic and lexical elements. The learner capitalizes on available resources to produce, display, and use the sign while attaining new skills. Both the target language (Russian) appearing in the labels and logos and the self-produced text in Fig. 7 are essential resources for observation, internalization, and re/construction of the phonological representation of the target language. To achieve an applicable letter-sound correspondence, as a sign-maker he employs creative ideas and theories of how to read the written language.

This process reflects how written and auditory modes of representation of one language are used to convey the sound of another language. The sign maker employs intrinsic bivalency to match the corresponding sounds between the Cyrillic, Roman, and Arabic scripts, and uses it strategically by employing multilingual awareness, phonological awareness, and multilingual competence (Bever, 2012, 2015). In this case, the ultimate result of the whole process is not necessarily learning the language, but the ability to navigate another writing system and achieve a desired level of phonological awareness in a target language (Russian). As the sign maker acknowledged: "I did it for myself, so that I will be able to read what is on those labels. I don't know the Russian language, but I know now how to read [labels] in Russian." The critical point here is that the sign maker produced a multilingual and multiscriptural sign and employed it as a literacy tool to learn how to read another sign in a target language. Here, his role as a sign observer and a sign explorer shifts towards the role of a sign maker, a learner, and a reader in order to achieve phonological awareness in reading/decoding the signs in a target language, making the engagements with the signs transactional. He capitalizes on his cultural and linguistic experiences, and reflects, hypothesizes, and applies his metalinguistic awareness and multilingual competence to explore the relationship between the multilingual texts and writing systems across languages.

Blommaert's (2014) methodological effects are relevant here for the implications of mobility in the sociolinguistics of globalization, emphasizing a degree of unpredictability in what we observe, and stressing that this unpredictability can only be resolved by ethnographic research on the intricacies of communication. Blommaert's (2014) view that in 'superdiverse' environments, the learners take all linguistic resources available (home dialects and English in the context of this study) and blend them into complex linguistic and semiotic forms. This is consistent with our investigation, where unpredictability and configuration of the signage we observe is explained by the analysis of linguistic and semiotic properties of the sign and the sign maker's own perspective. The sign maker, on his own, applied the same principles in creating the sign: he used linguistic and semiotic resources to learn how to read in a new language and to apply it for further communication. Thus, the linguistic landscape can offer an informal learning environment for learning through the sign and about the sign, while enhancing communication mediated by the sign.

Examining multilingual spaces and multilingual and multimodal texts in the linguistic landscape reveals how languages, texts, literacy, and learning are

interconnected in surrounding contexts. Community languages and cultures are invaluable resources bearing literacies and experiences within and across groups and individuals. Analyzing texts available through individual and communities' resources and practices provides a further opportunity to learn about literacy development in adults and children. These texts construct and negotiate multiple discourses of language use, and address the relations between the sign, the learner, and the community.

This brings a fresh view to linguistic landscapes as an integrated resource for investigating the interactions of text, discourse, practice and activity. Multiple resources of language and literacy learning and development 'outside' of formal schooling contribute to better understanding of complexity, heterogeneity, and multiplicity of the trajectories of learners' skills development and learners' ability to navigate across multiple cultural and linguistic spaces. The linguistic landscape as a multifaceted literacy environment with its multimodal and multilingual textual forms, both written texts and images, can be utilized in the classrooms as part of the curriculum (Bever & Richardson, 2020). At a broader level, educators can take advantage of community-based language learning (Clifford & Reisinger, 2019), and the 'funds of knowledge' (Gonzalez et al., 2005) that learners develop and apply outside their school setting. At a more conceptual level, perspective on community languages in linguistic landscapes considers individual, family, and community resources across various domains of the learner's life: this embraces linguistic, cognitive, psychological, communicative, and sociocultural processes and practices (Sanz & Igoa, 2012), and acknowledges that learning goes beyond the formal educational setting.

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