



Utilization of Linguistic Landscape: A Cross-Disciplinary Investigation of Informal English Learning of Iranian University Students

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In the current context of enhanced distance learning, newer and unique configurations of teaching and learning have prompted the need for a more context-sensitive and learner-oriented pedagogy to ensure an enhanced and holistic platform of the delivery of education outside classrooms. This paper is a critical exploration of how Iranian university students conceptualize, perceive, and utilize their linguistic landscapes (LLs) in learning English as a foreign language in Iran in response to the affordances made available to them through the various manifestations of globalization. It also problematizes how the utilization of these various LLs can enhance the ways that are more efficient than formal face-to-face classrooms, and how this constitutes a substantial investment into their future education. This qualitative case study involves an in-depth investigation of both English and non-English students from a university in Shiraz, Iran, through semi-structured interviews and focus groups to identify perceptions of participants with regard to their use of LLs, and how these external and informal affordances inform their language learning. Findings are likely to inform policymakers, curriculum designers, school leaders, EFL teachers, and students in terms of how to create a more optimized environment that will enhance both teaching and learning.

امروزه با پیشرفت آموزش از راه دور، روش های جدیدتر و منحصر به فرد تدریس برای کسب اطمینان از جامعیت آموزش در محیطی خارج از محیط آموزشی نیاز به راهبردهای آموزشی دانش آموز محور و مبتنی بر محیط را افزایش داده است. این مقاله به بررسی منتقدانه دانشجویان ایرانی میپردازد تا چگونگی درک و استفاده آنها از چشم اندازهای زبانی برای یادگیری زبان انگلیسی به عنوان یک زبان خارجی در ایران و پاسخ به تعاملات محیط را مشخص کند. این مطالعه همچنین چگونگی به کارگیری چشم اندازهای زبانی مختلف که میتواند منجر به افزایش روش هایی کارآمدتر از کلاس های حضوری و رسمی شود را مورد بررسی قرار داده است. تا نشان دهد که چگونه این امر باعث ایجاد سرمایه گذاری قابل توجهی در آموزش آینده آنها خواهد شد. در این تحقیق کیفی، دانشجویان رشته زبان انگلیسی و غیرزبانی یک دانشگاه واقع در شیراز، ایران از طریق مصاحبه نیمه ساختار یافته و بحث گروهی مورد مطالعه دقیق قرار گرفته اند تا دیدگاه شرکت کنندگان در رابطه با استفاده از چشم اندازهای زبانی و چگونگی تاثیر آنها در یادگیری زبان را مشخص کند. یافته های به دست آمده به سیاست گذاران، طراحان برنامه درسی، مدیران مدرسه، معلمان و یادگیرندگان اطلاعاتی در خصوص چگونگی ایجاد محیطی مطلوب برای افزایش کیفیت آموزش و بهبود یادگیری می دهد.

Keywords: linguistic landscape, linguistic affordances, metacognition, learner identity, student investment

Introduction

As early as in the 90s, Landry and Bourhis (1997, p. 23) studied the notion of 'linguistic landscape' (LL), by which they referred to "the visibility and salience of languages on public and commercial signs in a given territory or region." Specifically, LLs refer to how "the language of public road signs, advertising



billboards, street names, place names, commercial shop signs, and public signs on government buildings combines to form the linguistic landscape of a given territory, region, or urban agglomeration" (Landry & Bourhis, 1997, p. 25). Despite the fact that it is difficult to separate the impact of LLs on language learning from the influence of other kinds of input (such as formal instruction), it is now well established that exposure to a foreign language can occur in a variety of settings outside the classroom, especially when English is used as the target language (Cenoz & Gorter, 2008).

Linguistic Landscape studies are a relatively new branch of sociolinguistics that makes an effort to create thorough and precise inventories of urban multilingualism (Blommaert & Maly, 2016). Since all learning according to sociocultural theories originates from the social world, engagement in culturally structured activities, such as exposure to and learning from LLs, is crucial for learning to occur (Lantolf et al., 2015). According to sociocultural views, social interaction with other people, objects, and events leads to the development of human cognition (Wang et al., 2011). As Vygotsky explains, sociocultural contexts have a major role in the growth of higher mental activities as they help voluntary attention, intentional memory, rational thinking, making plans, and problem-solving (Fahim & Haghani, 2012), leading to the acquisition of higher order thinking skills. Since LLs provide great opportunities for learning through real-life and contextualized input, they can be useful for developing pragmatic competence, language awareness, and linguistic variety (Cenoz & Gorter, 2008), some of the skills that are often difficult to achieve through formal teaching, such as in classrooms.

While self-regulated learning outside the classroom is extremely important for learners to develop their L2 competence, Yabukoshi (2020) recently pointed out that researchers have not sufficiently focused on this issue. Self-regulation is a key motivating component for increasing students' self-efficacy and success (Kang, 2022). Activating metacognition is also integral to self-regulation enhancement (Kobayashi, 2016). Through the use of metacognition, language learners are able to monitor their cognitive processes (Haque, 2019). The final goal of any language learning is autonomy (Haque, 2019) since entirely autonomous students can regulate their own education without the aid of books, educators, or classrooms (Khaerudin & Chik, 2021). As learning beyond the classroom has an enormous impact on both language learning and learners' autonomy (Chan, 2016), various educational tools such as LLs can be useful for learners to move towards self-regulated learning and promote their language proficiency autonomously.

A large number of scholars believe that learners' exposure to the range of discourses in a second or foreign language classroom is constrained (Krashen, 1982). Learners may not be able to obtain advanced levels of language competence if they merely receive input from a small number of weekly classes, based solely on textbooks (Ellis, 2005), especially if these are based on a structured syllabus. Despite the fact that LLs can help students become more aware of their surroundings and play a significant role in learning L2 (Ferrarotti, 2017), they have just recently begun to be investigated from an educational standpoint and be recognized as acceptable inputs for language learning (Roos & Nicholas, 2019). According to Qi et al. (2020), a large number of research studies have been conducted to show that LLs are legitimate resources to improve language learning. However, these studies were still conducted in classrooms with learners receiving systematic and structured language training. Although numerous studies attempted to demonstrate a link between LLs and language learning and the advantages that teaching can derive from the school environment, Ying (2019) reports that only a few studies have specifically concentrated on the perspectives of learners and in the broader context of outside the classroom.

The present research aims thus to understand the need for extra-curricular activities such as LLs to be utilized as *authentic* teaching resources to supplement to formal English learning. Specifically, it explores how Iranian university students take notice of LLs in public places, their attitudes towards LLs as forms of authentic input and how they utilize these to enhance their language learning. This research intends to provide answers to the following questions:

1. How do Iranian university students pay attention to LLs in public places?
2. What are their attitudes towards LLs as authentic input in language learning?
3. How do Iranian university students utilize LLs to improve their language proficiency?

Literature Review

This section commences with problematizing and then integrating the notions of metacognition, self-regulation, and autonomy to assess how these terms pertain to LLs and to underscore the impact of LLs on learners' language proficiency development. Afterward, it focuses on not only the importance of LLs as a pedagogical resource but also their role in language education in order to indicate the positive impact of LLs on learners' proficiency. Lastly, the theoretical frame of this study is explained. Together these concepts and theorizations provide explanatory power to analyze and understand the data that is presented later in this article.

Metacognition, Self-regulation, and Autonomy

In general, metacognition is an essential skill that has positive consequences for learning, regulating emotions, and being self-aware. In the 1970s, John Flavell introduced the notion of metacognition (Georghiades, 2004) and described it as "cognition about cognitive phenomena" (Flavell, 1979, p. 906). This enables learners to be aware of their knowledge, control it while learning, and regulate it as needed (Adıgüzel & Orhan, 2017). Metacognition can thus be seen as a series of procedures used by individuals (in this case, English language learners) to monitor ongoing cognition so that they can properly manage and control their behavior (Rhodes, 2019).

Research has shown that the metacognitive process improves learning by directing students' thoughts and assisting them in choosing an appropriate course of action while they consider a problem, make a choice, or strive to comprehend a condition or text (Öz, 2005). According to metacognition research, success in a second or foreign language learning is highly correlated with metacognitive strategies and knowledge. Learners who possess decisive metacognitive strategies are conscious of their learning and are aware of when and how to apply the most suitable strategies to complete a task (Raoofi et al., 2014).

However, although teachers can help students grow their metacognitive knowledge in language learning by engaging them in activities and process-based lessons (Raoofi et al., 2014), they also need to develop it *outside* classrooms. Consequently, in this paper we argue that learning via LLs can encourage learners to promote their metacognitive knowledge as they are able to assess and control their learning processes by being aware of their goals, strengths, weaknesses, problems, knowledge, and proficiency level in L2.

Metacognition is also an essential element of self-regulatory behavior that can promote effective language proficiency (Bursalı & Öz, 2018). In the field of education, self-regulated learning is the procedure through which students actively manage their own learning and also actively evaluate their learning progress and results (Rovers et al., 2019). In consequence, control, performance assessment, and monitoring are three crucial elements of self-regulated learning (Raaijmakers et al., 2019). Teaching should assist students in the development of a self-directed learning strategy so that they may eventually determine their own requirements and goals, select the resources and materials in line with those objectives, and monitor and assess their advancement over time (Victori & Lockhart, 1995). Therefore, self-directed programs need to improve learners' metacognition in order to get them ready for pursuing their own learning autonomy (Victori & Lockhart, 1995).

However, autonomy is not something that students can always acquire effortlessly; rather, as Haque (2019) argues, it develops over time as they gain knowledge and skills. According to Darasawang and Reinders (2010, p. 2), "one way to develop learner autonomy is to train students how to use cognitive and metacognitive strategies so that they can manage their learning without the help of a teacher." Consequently, when language learners utilize metacognition, they commence efficiently monitoring their language learning and developing their autonomy in the process of learning (Haque, 2019).

Since materials and teaching aids applied inside the classroom may not be adequate for gaining autonomy, learners need to avail of such opportunities outside formal learning environments. This allows them to utilize LLs deliberately, spontaneously, and systematically in their daily lives. In doing so, LLs can be thus

seen as omnipresent language resources to increase their language competence and help them become more autonomous.

LLs as Pedagogical Resource

As discussed above, since it is often challenging for learners to adequately meet all their language learning needs in the classroom, there is much value in developing their competences outside of these formal settings. Hence, learners need to be exposed to authentic language in real contexts, as it is well known that language learning beyond the classroom plays a significant role in providing authenticity (Orhon, 2018) in the learning experience.

As pointed out by Crystal (2003), posters, billboards, electronic displays, store signs, and other methods have now become part of the daily scene. Therefore, LLs refer to "the use of language in its written form in the public sphere" (Gorter, 2006, p. 2). The utterances used in such LLs can consist of complete sentences, but they are frequently one or more words with a meaning related to the context in which they are written (Cenoz & Gorter, 2008) and also often have visual elements.

Due to the influences of globalization, multilingual (and mostly English) signs are ubiquitous in metropolitan areas all over the world. Road signs and other LLs can be a clear, simple, and visual approach to developing language and culture. They can also be effective and realistic resources for language learning in real-life environments and provide more information about the area's culture (Dumanig & David, 2019). Specifically, Riadi and Warti (2021) indicate that many LL signs can help students learn English by enhancing their vocabulary knowledge, pragmatic competence, multimodal literacy, grammatical skills, and comprehension of social factors.

As limited exposure to English remains an issue in education, many researchers have proposed that increasing learners' awareness of the elements in their setting is a potential method to broaden their language knowledge (Riadi & Warti, 2021). By raising a student's awareness of the language used in LLs outside the classroom, it is possible to facilitate significant links between the language learning that occurs in a classroom setting and the meaning-focused input that can be obtained from paying attention to the language seen in inscriptions in the community (Barrs, 2020). Such combination of LLs and classroom language instruction can be a useful method for teaching as it helps both students and instructors be aware of their surroundings and afford them with greater contextual sensitivity (Dumanig & David, 2019).

The Role of LLs in Language Education

In a recent article, Bernardo-Hinesle (2020) points out that LLs are a new area of study that has received significant attention in the last two decades. Specifically, the concept of LLs has gained traction in a variety of fields including sociocultural studies, urban sociology, sociolinguistics, linguistic anthropology, and, more recently, education (Li & Marshall, 2020). Cenoz and Gorter (2008), for example, investigated the role of LLs as a source of input both in second language acquisition and in the acquisition of pragmatic competence. They concluded that LLs provide authentic input for language learning and fostering awareness. Rowland (2013) specifically examined the benefits of employing LLs as an educational tool in EFL contexts. In his study, students engaged in a project in order to collect and analyze English texts used on signs in Japan. Rowland recommends that "pedagogical LL projects can be valuable to EFL students in a variety of ways, particularly in the development of students' symbolic competence and literacy skills in a multiliteracies sense" (p. 494). Likewise, Shang and Xie (2020) attempted to perceive Chinese teachers' attitudes towards the pedagogical values of English LLs in Eastern China's city and school spaces. The findings revealed that EFL teachers admitted that LLs had a major role in teaching and learning. However, they had no clear idea of how to fully utilize LLs in classroom instruction. Furthermore, findings demonstrated that the teachers intended to be active creators of English signs in order to establish customized learning environments for students.

With regard to languages displayed in public settings, Gorter et al. (2021) recently conducted another study to explore the significance of LLs in language instruction and language awareness. This research focused on the multilingual education context in the Basque Country in Spain, where Basque, Spanish, and English are the three languages of teaching. The required data was gathered in public places from pupils in primary schools and university master's students. The researchers came to the conclusion that languages displayed in public places were a useful resource for language education, as well as a useful tool for boosting their overall language awareness. In a similar study conducted in Oman, Algryani and Syahrin (2021) claimed that LLs could enhance learners' language awareness, translation, and literacy skills. Samples of their study involving focus group discussions, online surveys, and teacher's retrospective reflections comprised 58 students who registered for undergraduate translation courses at Dhofar University. The results indicated that LLs were effective for teaching and learning since they improved learners' language awareness, language competence, translation abilities, creativity, and critical thinking skills.

Although some of these studies indicated that LLs are useful to develop learners' language proficiency, especially in the classroom, more investigation is needed to further explore the benefits of employing LLs beyond the educational setting. This is especially true for Iran, where to our knowledge no such study has been conducted so far. In addition, there is not much research on the students' views on LLs as authentic input. As this area of study warrants careful attention, the present study will determine whether Iranian university students believe that English used in LLs can help them broaden their linguistic horizons. It will also demonstrate the extent to which they notice LLs around them in the first place.

Theoretical Framework

Piaget's cognitive development theory and Vygotsky's social constructivist perspectives on learning together reveal that learning is a dynamic activity taking place in a physical, cognitive, social, and cultural environment (Mensah, 2015). Together, these two theorists who are arguably the most significant developmental psychologists of the twentieth century, inform this study. The key tenet of Piaget's philosophy is that knowledge must be constructed by students as active creators. This means, students must be active in all aspects of their learning so that they are able to discover and process new information in accordance with their individual needs (Suhendi & Purwarno, 2018). Such opportunities, as discussed above, can be afforded by exposure to and learning from LLs. Since active learning has a key role in language learning, LLs allow learners to broaden their English knowledge and increase their proficiencies through their own experiences in real contexts and assume greater responsibility for their own learning, through metacognitive engagement.

Vygotsky's social constructivist theory highlights the impact of social and cultural contexts on learning and knowledge construction (Vygotsky, 1978). According to social constructivism, learning occurs via interactions with other students, teachers, and the environment (Aljohani, 2017). Therefore, Vygotsky places great emphasis on a sociocultural theory which holds that "language learning is a social construct because social interaction plays a fundamental role in the development of cognition" (Magaldi, 2010, p. 76), and the goal of this theory on L2 learning is to develop metacognitive knowledge and strategies simultaneously. Therefore, it includes cognitive viewpoints that emphasize active learners and cognitive reconstruction, as well as humanistic perspectives that focus on the development of the whole person in language learning (Abhakorn, 2014).

As learning a language in the social context and improving metacognitive knowledge are extremely important from Vygotsky's perspective, LLs can be valuable resources as they help learners not only develop their language competency but also control, examine, and think about their learning. As a result, they are able to expand their metacognitive knowledge without teachers' direct contribution and interference. This theory also places great emphasis on learning a language in social settings, such as through the utilization of LLs. Since LLs are seen everywhere in public places, learners' attention to LLs can help them improve their language skills, practice prior knowledge, and gain new information. In consequence, they can build their knowledge based on what they *already* know.

Methodology

This section first situates the study in context, outlining how English is positioned in the school and university curriculum in Iran, and the various informal ways of learning English in this country such as extra-curricular activities, social media, and language centers. The section then provides details on the study design, including the methodological choices made with regard to methods, participant selection, and data collection and analysis.

Formal English Education in Iran

Following the Islamic revolution in 1979, English was seen as a danger to national and Islamic identity (Kiany et al., 2011). According to Riazi (2005), the Islamic Revolution brought about significant changes in all parts of educational policy. Indeed, Riazi (2005) argues that the lack of official language planning in this country to identify the position of accessible languages as well as objectives of language teaching and learning programs in the formal education system have been the country's main difficulty since the Islamic Revolution and continues to this day.

In both middle and high schools, English is a compulsory subject, and the Ministry of Education employs English teachers in the public school system (Sadeghi & Richards, 2015). Despite worries about its cultural dominance in Iran, English remains an obligatory requirement in all university disciplines of study (Moharami & Daneshfar, 2022). Unlike in school, there are no predefined course books, materials, or curricula for teaching English at university. Instructors therefore create their course materials and construct their own programs (Zarrabi, 2018). However, just like in schools, the majority of English classes in universities emphasize reading comprehension, grammar, and vocabulary with little attention to speaking and communication competencies. Also, with the exception of TEFL and English literature majors, most classes are held in Persian (Zarrabi, 2018).

As language learning in class just from textbooks is insufficient for students to improve their competence level, it is often accompanied by extracurricular activities and practiced beyond the scope of the classroom (Al-Jarf, 2021). Sayer (2010) believes that learners' opportunities for exposure and practice outside the class are restricted in most EFL places around the world. Consequently, as Dumanig and David (2019) argue, LLs are useful and practical tools for language learning as they expose learners to English in the real context. It is in this context that we discuss the various forms of informal English education in Iran in the next section.

Informal English Education in Iran

Now that we have discussed formal education in Iran, it is important to see how English education is provisioned informally, including at language centers, which is the context of the current study. Due to rising demand, the number of language institutes has dramatically increased in Iran (Zarrabi & Brown, 2015), with more than 7,800 English language institutes, along with a large number of unregistered ones across the country (Zarrabi, 2018). Because Iranian students who finish high school are often not able to use English properly, a large number of young adults enroll in these institutions to improve their proficiency in English (Sadeghi & Richards, 2015).

Although the Ministry of Education prepares English books, and both public and private schools are obliged to employ them (Dahmardeh & Hunt, 2012), most private institutes utilize foreign published textbooks which are considered to be more 'attractive' since they provide a variety of activities, intriguing topics, and materials with varying degrees of difficulty (Iranmehr & Davari, 2018). In addition to language centers, advancements in technology such as better, faster and more reliable internet services and wider use of smartphones and computers have also resulted in substantial changes in English learning across the world, and these adjustments have also been especially visible in Iran (Shahriari, 2020). Thus, social media

platforms are seen as useful for both students and instructors to help teaching and learning both in and out of the classroom (Tabrizi & Onvani, 2018).

Since learning English is of great significance, Iranian students may employ various methods outside the classroom to improve their language competence. Stated differently, learning English does not solely occur in the classroom; it may happen in the learner's community and thus language learning can be enhanced by various sources, such as LLs (Dumanig & David, 2019). Moreover, LLs as pedagogical sources engage students in real literacy activities outside the school as it connects learners' life in school to their society (Hewitt-Bradshaw, 2014).

Data Collection

As this research intended to explore university students' views about the enhancement of their language ability through LLs, a qualitative case study design was adopted to show whether LLs were effective for learning English. To this end, interviews and focus group discussions were utilized to collect and analyze data. Qualitative research is suitable for the present study as it provides a detailed description of individuals' thoughts, feelings, opinions, and experiences as well as an interpretation of their actions (Rahman, 2017). Thus, valid and rich data can be obtained as it enables the researcher to examine actual and complicated occurrences in their natural settings (Nimehchisalem, 2018), and the case study technique is beneficial to apply when it is necessary to gain an in-depth understanding of an issue, event, or phenomenon in authentic contexts (Crowe et al., 2011).

Fifteen undergraduate students from Islamic Azad University of Shiraz participated in this study, selected through purposive sampling. All participants were English language learners at the upper-intermediate level, as per the Common European Framework of Reference for Languages (CEFR), a group which is likely to utilize different pedagogical resources outside their class to develop their language proficiency. These students were learning English as a foreign language through formal classes for more than two years and as all of them had passed intermediate courses, they were fairly proficient in English and able to express their views on LLs. Generally, they had no difficulties in understanding questions and providing appropriate responses. Of the 15 students (9 females and 6 males) who expressed their willingness to take part in interviews, 13 (8 females and 5 males) volunteered to attend the focus group discussion session. The participants' ages ranged from 19 to 24 and they represented various disciplines such as English, Chemistry, Mathematics, Economics, Psychology, Microbiology, and Accounting.

The questions proposed by Ying (2019) and Qi et al. (2020) were suitable for the objectives of this study as the researchers examined the role of LLs in language learning and explored learners' views on the importance of using these pedagogical resources in other contexts. To be more precise, some of the questions in both semi-structured interviews and focus group discussions were based on predetermined questions extracted from these studies. However, the interviewer allowed the participants to elaborate on their responses to understand their ideas accurately. The main reason for selecting these qualitative methods was to gain detailed information about students' attitudes. A guideline was provided to ensure consistency and maintain direction during data collection. This contained a list of questions about LLs to elicit participants' opinions and experiences. The efficiency and clarity of the guide were examined in order to obtain reliable data. In the semi-structured interview tradition, some follow up questions were asked based on participants' responses to extend on their responses or for clarity.

In the guideline, both general and detailed questions were utilized to gain a comprehensive understanding of their viewpoints. The participants were guided carefully to pursue the purpose of questions and respond to them accordingly. Some of the questions were posed to determine whether learners often look at LLs around them and which language or languages received the most attention. They also examined the significance of information used in LLs for learners. To indicate the attitudes of participants about LLs, some other inquiries emphasized their tendency towards using them as pedagogical resources outside the classroom. The last section of the guideline included several questions about the positive role of LLs in practicing skills and improving language proficiency. The central aim of focus group discussions was to

elicit further information about the nuances of learners' experiences, especially through spontaneous questions, and create more opportunities for exchanging their views.

Before both interviews and focus group discussions, the participants were informed about the definition and usage of LLs in language learning in order to receive precise and proper responses. The face-to-face interviews focused on respondents' perspectives on the significance of LLs as educational sources and were all conducted at campus, each lasting for about 30 minutes. Following these, the focus group session was held for about 90 minutes in order to extend and enrich the data. All conversations were recorded for transcription.

Data Analysis

The thematic analysis framework presented by Braun and Clarke (2006) and Creswell (2018) were used for the data analysis of this study. In the first phase, the recorded responses of all participants obtained through either interviews or focus group discussions were transcribed verbatim. In the second phase, the researcher read the transcripts several times thoroughly in order to gain deeper insight into students' responses. As Basit (2003) stated, coding is an important step used during data analysis to arrange and comprehend textual data, and the use of a coding list comprising code explanations can help researchers reduce cognitive change in the analytic process and ensure reliability (Bengtsson, 2016).

The coding process commenced with finding major ideas and key concepts that directly related to the LLs. The data were coded in accordance with the research questions and literature; therefore, the analysis was theory-driven, specifically following an iterative process of six steps as suggested by Braun and Clarke (2006). This was helpful in establishing the connection between the theories of this research and the data. The next step was creating themes based on the codes (Braun & Clarke, 2006). To this end, similar codes were identified and categorized based on their frequencies and occurrences in order to determine initial themes through inductive analysis, as this type of analysis requires looking for the most frequent and dominant themes among the respondents in light of the study's goals and questions (Mackey & Gass, 2005). Finally, considering initial themes, the data were reviewed and the themes were modified based on the new interpretation of the data. This comprehensive data analysis was useful for exploring themes and increasing the credibility of findings.

As Lincoln and Guba (1985) explain, credibility, transferability, confirmability, and dependability are important considerations in qualitative research. Although some studies emphasize that dependability is more appropriate compared to reliability for this type of paradigm, the main objective of these two terms is the same (Long & Johnson, 2000). Specifically, it is important to make sure that data is collected consistently and without undue variation that unintentionally influences the quality of the data (Long & Johnson, 2000). In this study, data was collected based on its stated objectives, and the analysis was done through thematic coding. For triangulation purposes, this research used two qualitative methods to collect data, and the process of coding was assessed by two experts to gain their feedback and insights on the coding analysis. This process enhanced the trustworthiness and reliability of the analysis.

Findings

This section presents the results from the data analysis to represent students' views on LLs as a pedagogical tool. After the codes were identified and classified based on their responses, three themes comprising the importance of LLs in language learning, the benefits of LLs in language learning, and developing language skills via LLs emerged in relation to the research questions.

The Importance of LLs in Language Learning

Most of the participating students reported employing different approaches outside the classroom in order to develop their language competence as they required more input for learning English. They all asserted that the limited classroom input was insufficient in assisting them in improving their skills in any tangible manner. Parisa, for example, explained:

I use different methods for learning English. For example, I enjoy watching movies in my spare time to learn new idioms, phrases, and expressions. I think English movies can help me improve my listening and speaking skills substantially. I also think that English textbooks, exercises, and tests are not enough to increase my knowledge and satisfy all my needs.

Exposure to formal classroom instruction was also often perceived to be tedious, monotonous, and stressful for them. The students were thus keen on incorporating English into their daily lives in order to facilitate better language development and make the learning process more useful. Hence, the use of LLs empowered them to integrate formal instruction used in the classroom with informal learning to receive more comprehensive input, accelerate language learning, and make the process enjoyable.

The availability of LLs in various places also motivated students into learning English efficiently every day. In this regard, Ali explained: "LLs are useful for learning English because I can see them in many places." He thought that LLs were one of the most streamlined and effective methods for language learning since they were omnipresent and provided ample opportunities to extend their knowledge.

Most learners (N=13) often noticed LLs in public settings deliberately or randomly, although some of them (N=7) explained that they paid attention to LLs, even as they were exhausted or occupied with routine tasks and might have only read their content unintentionally or subconsciously, rather than deliberately as a designated learning tool. Consequently, one of the significant aspects of LLs was to attract learners' attention and arouse their curiosity for looking at signs or other LLs around them. Neda explained:

I usually try to notice LLs such as road signs or posters in various places. In my opinion, they are useful and practical since they can teach me English outside the classroom. Most of the time I'm tired when I return from my classes, but I like to look at LLs when I see them anywhere.

Their responses also indicated that students noticed both English and Persian whenever they had sufficient time, otherwise they might only read English information. Except for a few students (N=3) who preferred to see LLs for fun or finding errors occasionally, others utilized LLs to gain information, rather than just to improve their language.

Most participants (N=11) preferred to read English information used in LLs instead of Persian as they intended to evaluate their reading comprehension and determine the extent to which they were able to obtain correct information. Raha asserted: "I read the text carefully to see whether I can understand it or not. I sometimes can't understand all sentences because they are difficult. Therefore, I use their translation." Such practice can be useful in the process of language learning as learners are able to enhance their knowledge, review prior information, and realize their mistakes.

Some of them (N=5) even believed that although some phrases or sentences were complex and difficult to understand, they were still eager to spend a long time to reflect on their meaning – something they reported they were less keen on doing in the classroom. In such cases, only when they were ultimately unsuccessful in finding the precise and clear meaning, they would check their Persian translation. In consequence, LLs are effective scaffolding tools for utilizing background knowledge, connecting new information to past information, developing reading comprehension, building vocabulary, and improving memory.

The Benefits of LLs in Language Learning

Regardless of gender, all students appeared to have a positive attitude towards the use of LLs as an educational resource for improving their knowledge in the target language. They emphasized that language learning should not be restricted to the classroom or to the instructor as it can be developed via a variety of pedagogical tools outside the class, such as LLs. For instance, Omid explained: "I can't learn English only in the classroom, and it's really difficult for me to read the book all the time. I prefer to increase my knowledge through effective ways outside the classroom." The students firmly believed that LLs can provide sustained additional input and that too in a more contextual manner.

Further to this, some participants (N=8) even thought that the written or printed text used in LLs could be utilized for classroom instruction. They maintained that learning a few practical words on a regular basis is more beneficial than memorizing a long list of decontextualized vocabulary. Therefore, LLs not only enrich their vocabulary but also promote active interest in English. This may encourage them to pay more attention to LLs in public places. Indeed, such finding is supported by Oxford and Scarcella (1994, p. 231) who argued that "vocabulary is not explicitly taught in many second language (L2) classes, and students are usually expected to learn vocabulary on their own without much guidance." Oxford and Scarcella further explain that vocabulary is often taught poorly or unsystematically in L2 classes, for instance by memorizing lists of words. However, only providing word lists for students is an ineffective method of teaching vocabulary. Students generally thought that the textbooks were inadequate in expanding vocabulary since they sometimes could not utilize appropriate words in specific situations due to limited practical knowledge. As an opponent of memorizing words, Reza explained:

I learn many words or even expressions in my English class, but I can't use all of them in my conversations because I forget them or I don't know how to use them. I believe that learners should memorize many words because of their exams, and I feel bored when I want to memorize the words and their definitions just for my exams.

Owing to limited input, formal courses are not permanent and often satisfy only some of their demands. For example, Mahsa believed that "learners can't improve all their language skills through formal learning because they participate in English classes only for a few years. They should use different methods to learn and practice English every day." Most participants (N=12) emphasized that lifelong learning is vital for gradually and steadily improving their language competence. This type of learning enables them to assess their language skills and performance without educators' assistance. They thus considered that LLs are valuable resources for learning English as they are ubiquitous and can be applied all the time. This aligns with the idea that language learning is a lifelong effort and cannot be restricted to the classroom (Deveci, 2015). Learning, as a part of life, occurs everywhere and at any moment (Chiřiba, 2012). In such lifelong learning process, learners take charge of their learning and are aware of the areas in which they still need to learn more or develop their skills (Demir & Dođanay, 2019). Lifelong students are motivated and self-regulated (Ng, 2016) as they are able to direct their own learning.

Hence, exposure to LLs empowers learners to control and monitor their language learning independently. More precisely, LLs have a fundamental role in developing learners' metacognitive abilities as they encourage them to think about the *process* of learning deeply. Learning via LLs can pave the way for enhancing students' self-regulation skills and autonomy. In addition, these resources lead to active learning beyond formal instruction which can be beneficial for building self-confidence, practicing skills, increasing motivation, developing problem-solving abilities, and extending knowledge in authentic contexts.

As formal learning is often inflexible and generic (which is certainly the case in Iran), learners must pursue specified subjects, curricula, rules, methods, learning programs, and educational objectives. A learning process that is uninteresting, dull, or tiresome for some learners can adversely impact their motivation. The participants of this study considered that employing informal approaches such as LLs allows them to consider their goals, interests, preferences, and requirements. Therefore, one of the main

advantages of informal education is inflexibility which helps learners expand their knowledge at their own speed and without any pressure.

All participants invariably used some form of educational sources outside the classroom for enhancing their L2 competence. Such exposure to authentic input was vital in their learning and afforded them opportunities otherwise absent in the classroom. In consequence, LLs could help learners reinforce their English and review the learned material in real contexts. As Sahar explained:

Language learners need to learn different words and expressions that native speakers use in their daily conversations. So, I'm really eager to learn them as I think they are highly important for improving my speaking skill. I think LLs can help me find these words.

One major issue, however, was long-term memory retention - many students (N=10) reported being unable to remember numerous words, especially less prevalent ones, after a period of time since they only memorized them without repetition or practice. In this regard, Oxford and Scarcella (1994) claim that in some cultures, especially Asian ones, rote memorization of words is common. Although it helps learners learn a large variety of words in a short time, which is beneficial for their tests, they tend to forget the words quickly in most cases.

Developing Language Skills via LLs

The data gathered in this research demonstrated that none of the respondents relied solely on their instructors' guidance and assistance in learning English. Hence, they considered instructional resources outside the classroom to have played a significant supplementary role in improving their English language. All participants believed that vocabulary as an indispensable component of language learning cannot be learned merely in the educational environment. It is thus crucial for learners to steadily enrich their vocabulary via various methods such as LLs. Their responses showed that although they learned a large number of words in the classroom, they were still unable to adequately practice them due to limited time. All of them stressed the necessity of employing words in various contexts instead of rote memorization. They considered that LLs are highly beneficial as they exposed them to a wide vocabulary. Therefore, LLs could help them not only expand their vocabulary but also learn its usage in authentic contexts. Acquiring an extensive vocabulary in this manner could encourage them to accurately express their opinions, feelings, and thoughts in their communication.

One of their main concerns here is to be able to pronounce words correctly, leading to effective communication. Without intelligible pronunciation, learners cannot transfer their messages properly. Ali stated that "when I look at the LLs in public places, I understated that I forget many words or their pronunciation. I use LLs to review these words." Participants like Ali were unable to remember the right pronunciation of words owing to the lack of practice. They considered that if learners intend to achieve fluency in English, they should not only rely on formal instruction, teachers' guidance, or classroom audio files. As LLs are seen everywhere, they enable them to review or practice the pronunciation of prior words, as long as they practice with others. Some of them (N=7) attempted to find the definition or pronunciation of new words in their dictionary to extend their vocabulary, which would arguably have a profound effect on their language skills such as speaking, reading, listening, and writing.

Most of the students used LLs to develop their vocabulary, practice their pronunciation, and review their knowledge. However, only a few students (N=4) claimed that they utilized LLs to also broaden their grammatical knowledge. Hasti for example explained: "I often pay attention to LLs to check my pronunciation and learn new words, and I don't think LLs seem very effective for learning grammar because I usually see words or short phrases in them." Consequently, LLs helped them evaluate their knowledge, find their problems, extend their vocabulary, review their prior knowledge, and increase their conversational skills.

Students also strove to understand the definition of words, phrases, or sentences used in LLs. Despite the fact that some of them looked for the meaning and usage of new words in a dictionary when they were not certain, they forgot some of them owing to lack of repetition. They suggested that noting down new words is one of the efficient ways of learning and practicing them. The use of new words in different contexts would enable them to retain the words in their long-term memory and retrieve them rapidly. Fatemeh believed that:

LLs are useful for developing my vocabulary, but I usually forget many words because I only see them one time and I don't practice them. I think I have to write them in my notebook and practice them every day.

As discussed above, Iranian university students used a variety of pedagogical resources in the form of LLs for developing their skills as they believed that language learning should extend beyond formal contexts. They also claimed that engaging with LLs have the dual advantage of encouraging them to further invest in learning English in the classroom.

Discussion

Da Silva (2018) explains that LLs can be utilized as authentic teaching resources to instruct not only English but also other subjects such as economics, social issues, and politics. Specifically, LLs can help students improve their skills by providing a context in which they can link in-class lessons to the real language used in their surroundings (Riadi & Warti, 2021). As we have explained, one of the persistent difficulties in teaching and learning L2 is that learners are often not exposed to the target language adequately (Aladjem & Jou, 2016). To put it another way, language learning should not be restricted to the classroom; it may occur anywhere, such as at home and in society (Hyland, 2004). Exposure to and the utilization of LLs can thus be a form of free, omnipresent and sustainable learning beyond formal contexts.

In a study on international students in the context of Korea, Qi et al. (2020) indicated that students looked at LLs around them and paid the most attention to English. The researchers confirmed that the students held a positive attitude towards LLs as real input, and they frequently used them to practice pronunciation and improve their Korean vocabulary. The current study supports these results by showing the benefits of LLs in language teaching and underlining their impact on language achievement. Ying (2019) also concluded that EFL learners agreed that LLs were valuable resources for learning English. The findings in Dumanig and David's study (2019) in the context of Oman similarly demonstrated that applying LLs in an EFL context had a beneficial effect on English language teaching as they assisted learners in improving their vocabulary, spelling, and grammar. This type of learning was practical because the learners were exposed to English in authentic contexts. Similar to previous studies conducted in other contexts, the current study confirms that LLs are significant tools for learning L2 as they enable learners to aid their language development and enhance their proficiency outside formal environments. Indeed, these ubiquitous pedagogical resources are effective in improving learners' skills in vocabulary, pronunciation, and spelling.

As the current study corroborates the findings of the aforementioned studies, we argue that LLs have considerable influence on the process of learning English (or other foreign languages). Since LLs are beneficial for learners to develop their language proficiency, review prior learning, and associate new information with their prior knowledge, they can be regarded as an important scaffolding tool for L2 learning. Learning the target language via LLs also increases students' motivation and self-confidence since they empower them to measure their language performance and abilities without formal assessment. LLs thus help language learners make decisions, select suitable strategies, set goals, reflect on learning processes, recognize their errors, improve problem-solving skills, and realize their strengths and weaknesses independently. In addition to formal learning in the classroom, integrating such extracurricular activities into the process of language learning is also useful for building self-regulation, since these activities

encourage learners to take responsibility for their own learning, be aware of their progression, evaluate their proficiency level, and broaden their language knowledge. Findings affirm that LLs direct them to gradually fostering self-regulation and enhance metacognitive skills towards lifelong learning.

One of the main advantages of LLs is the opportunity for the use of English as the primary language which can be immensely helpful, especially in non-English-speaking countries. As Peng et al. (2021) point out, a large number of multilingual LLs include both English and regional languages, given English's role as lingua franca or international language (Canagarajah, 2007; Graddol, 2006; Pennycook, 2008). LLs also attract learners' attention due to their visual characteristics and expose them to real input in public spaces, motivating learners to learn through both intentional and incidental learning. Unlike formal education, such out-of-class learning has the advantage of greater flexibility and choice in terms of learners' own requirements and interests.

Learning languages through LLs is essentially based on the principles of constructive theories. The most important feature of such theory is that the learner should be the focus of attention in the learning process, and learners, not others, must actively extend their knowledge (Suhendi & Purwarno, 2018). Thus, one of the most important considerations in education is that instructors cannot simply transfer knowledge to pupils, something that Freire (1970) refers to as the "banking model"; they must *actively* facilitate the construction of knowledge in their minds (Golder, 2018). When LL materials are used in teaching and learning, the process can be more motivating and enable students to engage more actively and creatively with language texts (Algryani & Syahrin, 2021).

According to sociocultural theories, learning is a social activity that occurs as a consequence of the interaction between the learner and the environment (Fahim, & Haghani, 2012). Socio-cultural circumstances also have a fundamental role in developing human cognition (Aimin, 2013). The use of LLs can thus assist learners in extending their language knowledge in real contexts, reinforcing their metacognitive skills, especially towards the acquisition of higher order cognitive skills, and increasing their autonomy. Hence, LLs facilitate autonomous learning beyond formal settings (Najeeb, 2013) by enabling learners to monitor their own learning, assess their performance, improve their skills, boost their knowledge, and ultimately achieve autonomy.

Conclusion and Implications

Extending the work of Ying (2019) and Qi et al. (2020), the results of this study indicate that Iranian EFL students employed various pedagogical resources outside the classroom as they believed that textbooks or teachers' guidance were inadequate in enhancing their language competence. In response, they sought to experience language learning in authentic and informal contexts in the form of ubiquitous LLs. They claimed that LLs are beneficial and efficient as they provide numerous opportunities for language improvement outside the classroom. The students reported learning by noticing LLs deliberately or randomly in public places and read both English and Persian whenever they had an opportunity. This helped them develop their vocabulary, practice their pronunciation, and review their knowledge. They generally held a positive attitude towards increasing their level of proficiency via LLs and considered that LLs play a significant role in the process of learning L2. These learners believed that merely learning new words regularly in the classroom was insufficient, they also had to *use* them in different situations to retain the words in their long-term memory.

The findings of this research point to the immense benefits of using LLs and their impact on L2 learning, which does not need to be restricted to the textbook or the classroom. Since LLs are physically located in real contexts, they can also motivate and encourage learners to notice and employ them for in language development. The present study has also shown that LLs can raise learners' metacognitive knowledge and enable them to assess their own learning and identify their language problems. This can help them become autonomous, which is an important aspect in learning foreign languages.

The results are beneficial for policymakers, curriculum designers, school leaders, and EFL teachers in terms of enhancing their awareness of the value of LLs in L2 teaching and learning. Specifically, stakeholders can be cognizant of the important role of social context in language learning and LLs as an inseparable part of the environment and an effective source for expanding language knowledge in EFL settings. More importantly, the accessibility, ubiquity and sustainable availability of LLs in daily life are helpful for raising language awareness in lifelong learning. Since teaching aids and materials applied in the classroom are often inadequate in improving language skills and autonomy, the results show that exposing learners to LLs contributes to the attainment of real-life, enjoyable, challenging, and incidental knowledge of a foreign language. They also demonstrate that these resources enable learners to independently practice their skills and reinforce their metacognition. Language learners in EFL contexts can thus benefit from LLs as these empower them into taking greater responsibility in their education, direct their learning, and assess their successes.

As this research applied a qualitative design, the required data was obtained from a limited number of students. The participants were selected from different disciplines; therefore, the study did not focus on a particular group of students. Moreover, all respondents were undergraduate English language learners. Further studies can be conducted to evaluate other aspects of LLs. Another study can be conducted to compare learners who use LLs with those who do not, or to explore teachers' attitude towards the use of LLs in language learning.

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References

- Abhakorn, M. L. (2014). Investigating the use of student portfolios to develop students' metacognition in English as a foreign language learning. *Journal of Language Teaching and Research*, 5(1), 46–55. <https://doi.org/10.4304/jltr.5.1.46-55>
- Adıgüzel, A., & Orhan, A. (2017). The relation between English learning students' levels of self-regulation and metacognitive skills and their English academic achievements. *Journal of Education and Practice*, 8(9), 115–125.

- Aimin, L. (2013). The study of second language acquisition under socio-cultural theory. *American Journal of Educational Research*, 1(5), 162–167. <https://doi.org/10.12691/education-1-5-3>
- Aladjem, R., & Jou, B. (2016). The linguistic landscape as a learning space for contextual language learning. *Journal of Learning Spaces*, 5(2), 66–70.
- Algryani, A., & Syahrin, S. (2021). Utilizing learners' linguistic landscape as a pedagogical resource in the translation classroom: A case study in the Sultanate of Oman. *Arab World English Journal*, 12(1), 357–373. <https://dx.doi.org/10.24093/awej/vol12no1.24>
- Al-Jarf, R. (2021). Teaching English with linguistic landscapes to Saudi students studying abroad. *Asian Journal of Language, Literature and Culture Studies*, 4(3), 1–12.
- Aljohani, M. (2017). Principles of “constructivism” in foreign language teaching. *Journal of Literature and Art Studies*, 7(1), 97–107. <https://doi.org/10.17265/2159-5836/2017.01.013>
- Barrs, K. (2020). Learning from the linguistic landscape: A project-based learning approach to investigating English in Japan. *Electronic Journal of Foreign Language Teaching*, 17, 7–15.
- Basit, T. (2003). Manual or electronic? The role of coding in qualitative data analysis. *Educational Research*, 45(2), 143–154. <https://doi.org/10.1080/0013188032000133548>
- Bengtsson, M. (2016). How to plan and perform a qualitative study using content analysis. *NursingPlus Open*, 2, 8–14. <https://doi.org/10.1016/j.npls.2016.01.001>
- Bernardo-Hinesley, S. (2020). Linguistic landscape in educational spaces. *Journal of Culture and Values in Education*, 3(2), 13–23. <https://doi.org/10.46303/jcve.2020.10>
- Blommaert, J., & Maly, I. (2016). Ethnographic linguistic landscape analysis and social change: A case study. In K. Arnaut, J. Blommaert, B. Rampton, & M. Spotti (Eds.), *Language and superdiversity* (pp. 197–217). Routledge.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Bursalı, N., & Öz, H. (2018). The role of goal setting in metacognitive awareness as a self-regulatory behavior in foreign language learning. *International Online Journal of Education and Teaching*, 5(3), 662–671.
- Canagarajah, S. (2007). Lingua franca English, multilingual communities, and language acquisition. *The Modern Language Journal*, 91, 923–939. <https://doi.org/10.1111/j.1540-4781.2007.00678.x>
- Cenoz, J., & Gorter, D. (2008). The linguistic landscape as an additional source of input in second language acquisition. *International Review of Applied Linguistics in Language Teaching*, 46(3), 267–287. <https://doi.org/10.1515/IRAL.2008.012>
- Chan, H. W. (2016). Popular culture, English out-of-class activities, and learner autonomy among highly proficient secondary students in Hong Kong. *Universal Journal of Educational Research*, 4(8), 1918–1923.
- Chiřiba, C. A. (2012). Lifelong learning challenges and opportunities for traditional universities. *Procedia-Social and Behavioral Sciences*, 46, 1943–1947. <https://doi.org/10.1016/j.sbspro.2012.05.408>
- Creswell, J. W. (2018). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. ProQuest Ebook Central.
- Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A., & Sheikh, A. (2011). The case study approach. *BMC Medical Research Methodology*, 11, 1–9. <https://doi.org/10.1186/1471-2288-11-100>
- Crystal, D. (2003). *English as a global language*. Cambridge University Press.
- Dahmardeh, M., & Hunt, M. (2012). Motivation and English language teaching in Iran. *Studies in Literature and Language*, 5(2), 36–43. <https://doi.org/10.3968/j.sll.1923156320120502.798>
- Darasawang, P., & Reinders, H. (2010). Encouraging autonomy with an online language support system. *CALL-EJ*, 11(2), 1–16.
- Da Silva, A. M. (2018). Linguistic landscape: An authentic material to teach English to high school students. *Jurnal Pengabdian kepada Masyarakat MADANI*, 4(2), 70–76. <https://doi.org/10.53834/mdn.v4i2.508>
- Demir, Ö., & Dođanay, A. (2019). An investigation of metacognition, self-regulation and social intelligence scales' level of predicting pre-service teachers' lifelong learning trends. *International Journal of Progressive Education*, 15(5), 131–148. <https://doi.org/10.29329/ijpe.2019.212.10>
- Deveci, T. (2015). A comparative study of the lifelong learning propensities of English language learners: Nationality, gender and length of study. *Learning and Teaching in Higher Education: Gulf Perspectives*, 12(1), 2–25.

- Dumanig, F. P., & David, M. K. (2019). Linguistic landscape as a pedagogical tool in teaching and learning English in Oman. *Modern Journal of Studies in English Language Teaching and Literature*, 1, 1–13. <https://doi.org/10.56498/11201988>
- Ellis, R. (2005). Principles of instructed language learning. *System*, 33(2), 209–224. <https://doi.org/10.1016/j.system.2004.12.006>
- Fahim, M., & Haghani, M. (2012). Sociocultural perspectives on foreign language learning. *Journal of Language Teaching and Research*, 3(4), 693–699. <https://doi.org/10.4304/jltr.3.4.693-699>
- Ferrarotti, L. (2017). The linguistic landscape and its potential for English language teaching. *Journal for EuroLinguistiX*, 14, 63–68.
- Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American psychologist*, 34(10), 906–911. <https://doi.org/10.1037/0003-066X.34.10.906>
- Freire, P. (1970). *Pedagogy of the oppressed*. The Continuum International Publishing Group.
- Georghiades, P. (2004). From the general to the situated: Three decades of metacognition. *International Journal of Science Education*, 26(3), 365–383. <https://doi.org/10.1080/0950069032000119401>
- Golder, J. (2018). Constructivism: A paradigm for teaching and learning. *International Journal of Research and Analytical Reviews*, 5(3), 678–686.
- Gorter, D. (2006). Introduction: The study of the linguistic landscape as a new approach to multilingualism. *International Journal of Multilingualism*, 3(1), 1–6. <https://doi.org/10.1080/14790710608668382>
- Gorter, D., Cenoz, J., & van der Worp, K. (2021). The linguistic landscape as a resource for language learning and raising language awareness. *Journal of Spanish Language Teaching*, 8(2), 161–181. <https://doi.org/10.1080/23247797.2021.2014029>
- Graddol, D. (2006). *English next: Why global English may mean the end of 'English as a foreign language'*. British Council.
- Haque, M. M. (2019). From cognition, metacognition to autonomy: A framework for understanding language learning dynamics. *Arab World English Journal, Special Issue*, 207–222. <https://dx.doi.org/10.24093/awej/efl1.15>
- Hewitt-Bradshaw, I. (2014). Linguistic landscape as a language learning and literacy resource in Caribbean Creole contexts. *Caribbean Curriculum*, 22, 157–173.
- Hyland, F. (2004). Learning autonomously: Contextualising out-of-class English language learning. *Language Awareness*, 13(3), 180–202. <https://doi.org/10.1080/09658410408667094>
- Iranmehr, A., & Davari, H. (2018). English language education in Iran: A site of struggle between globalized and localized versions of English. *Iranian Journal of Comparative Education*, 1(2), 70–84. <https://doi.org/10.22034/IJCE.2018.87725>
- Kang, N. (2022). Promoting EFL learners' self-regulated learning using a self-recorded video-speaking task in an online ESP course. *The Journal of Asia TEFL*, 19(4), 1141–1162. <http://dx.doi.org/10.18823/asiatefl.2022.19.4.1.1141>
- Khaerudin, T., & Chik, A. (2021). Evaluating supports for learner autonomy in ELT textbooks. *The Journal of Asia TEFL*, 18(1), 39–56. <http://dx.doi.org/10.18823/asiatefl.2021.18.1.3.39>
- Kiany, G. R., Mahdavy, B., & Samar, R. (2011). Towards a harmonized foreign language education program in Iran: National policies and English achievement. *Literacy Information and Computer Educational Journal*, 2(3), 462–469. <https://doi.org/10.20533/licej.2040.2589.2011.0064>
- Kobayashi, A. (2016). Examining a metacognitive instruction model. *The Journal of Asia TEFL*, 13(2), 117–137. <http://dx.doi.org/10.18823/asiatefl.2016.13.2.4.117>
- Krashen, S. (1982). *Principles and practice in second language acquisition*. Pergamon Press.
- 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>
- Lantolf, J., Thorne, S. L., & Poehner, M. (2015). Sociocultural theory and second language development. In B. van Patten & J. Williams (Eds.), *Theories in second language acquisition* (pp. 207–226). Routledge
- Li, J., & Marshall, S. (2020). 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>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.
- Long, T., & Johnson, M. (2000). Rigour, reliability and validity in qualitative research. *Clinical Effectiveness in Nursing*, 4(1), 30–37. <https://doi.org/10.1054/cein.2000.0106>
- Mackey, A., & Gass, S. M. (2005). *Second language research: Methodology and design*. Lawrence Erlbaum Associates.

- Magaldi, L. (2010). Metacognitive strategies based instruction to support learner autonomy in language learning. *Revista Canaria de Estudios Ingleses*, 61, 73–86.
- Mensah, E. (2015). Exploring constructivist perspectives in the college classroom. *SAGE Open*, 5(3), 1–14. <https://doi.org/10.1177/2158244015596208>
- Moharami, M., & Daneshfar, S. (2022). The political climate of English language education in Iran: A review of policy responses to cultural hegemony. *Issues in Educational Research*, 32(1), 248–263.
- Najeeb, S. (2013). Learner autonomy in language learning. *Procedia-Social and Behavioral Sciences*, 70, 1238–1242. <https://doi.org/10.1016/j.sbspro.2013.01.183>
- Ng, B. (2016). Towards lifelong learning: Identifying learner profiles on procrastination and self-regulation. *New Waves Educational Research and Development*, 19(1), 41–54.
- Nimehchisalem, V. (2018). Exploring research methods in language learning-teaching studies. *Advances in Language and Literary Studies*, 9(6), 27–33. <https://doi.org/10.7575/aiac.all.v.9n.6p.27>
- Orhon, Y. (2018). An investigation of out-of-class language activities of tertiary-level EFL learners. *Education Reform Journal*, 3(1), 1–14. <https://doi.org/10.22596/erj2018.0301.1.14>
- Oxford, R. L., & Scarcella, R. C. (1994). Second language vocabulary learning among adults: State of the art in vocabulary instruction. *System*, 22(2), 231–243. [https://doi.org/10.1016/0346-251X\(94\)90059-0](https://doi.org/10.1016/0346-251X(94)90059-0)
- Öz, H. (2005). Metacognition in foreign/second language learning and teaching. *H. U. Journal of Education*, 29, 147–156.
- Peng, J., Mansor, N. S., Ang, L. H., & Kasim, Z. (2021). Understanding the dynamics of English in the linguistic landscapes of Guangzhou. *International Journal of Modern Languages and Applied Linguistics*, 5(1), 31–50. <https://doi.org/10.24191/ijmal.v5i1.12851>
- Pennycook, A. (2008). English as a language always in translation. *European Journal of English Studies*, 12(1), 33–47. <https://doi.org/10.1080/13825570801900521>
- Qi, W., Zhang, H., & Sorokina, N. (2020). Linguistic landscape for Korean learning: A survey of perception, attitude, and practice of Korean beginners at a Korean university. *Journal of Language Teaching and Research*, 11(6), 956–961. <http://dx.doi.org/10.17507/jltr.1106.12>
- Raaijmakers, S. F., Baars, M., Paas, F., van Merriënboer, J. J., & van Gog, T. (2019). Effects of self-assessment feedback on self-assessment and task-selection accuracy. *Metacognition and Learning*, 14, 21–42. <https://doi.org/10.1007/s11409-019-09189-5>
- Rahman, M. S. (2017). The advantages and disadvantages of using qualitative and quantitative approaches and methods in language “testing and assessment” research: A literature review. *Journal of Education and Learning*, 6(1), 102–112. <https://doi.org/10.5539/jel.v6n1p102>
- Raoofi, S., Chan, S. H., Mukundan, J., & Rashid, S. M. (2014). Metacognition and Second/Foreign Language Learning. *English Language Teaching*, 7(1), 36–49. <https://doi.org/10.5539/elt.v7n1p36>
- Rhodes, M. G. (2019). Metacognition. *Teaching of Psychology*, 46(2), 168–175. <https://doi.org/10.1177/0098628319834381>
- Riadi, A., & Warti, F. W. (2021). Linguistic landscape: A language learning media in an underdeveloped region. *Indonesian TESOL Journal*, 3(1), 46–67. <http://dx.doi.org/10.24256/itj.v3i1.1782>
- Riazi, A. (2005). The four language stages in the history of Iran. In A. Lin & P. W. Martin (Eds.), *Decolonisation, globalization: Language-in-education policy and practice* (pp. 98–114). Multilingual Matters.
- Roos, J., & Nicholas, H. (2019). Using young learners’ language environments for EFL learning: Ways of working with linguistic landscapes. *AILA Review*, 32(1), 91–111. <https://doi.org/10.1075/aila.00022.roo>
- Rovers, S. F., Clarebout, G., Savelberg, H. H., de Bruin, A. B., & van Merriënboer, J. J. (2019). Granularity matters: Comparing different ways of measuring self-regulated learning. *Metacognition and Learning*, 14, 1–19. <https://doi.org/10.1007/s11409-019-09188-6>
- 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>
- Sadeghi, K., & Richards, J. C. (2015). Teaching spoken English in Iran’s private language schools: Issues and options. *English Teaching: Practice & Critique*, 14(2), 210–234. <https://doi.org/10.1108/ETPC-03-2015-0019>
- Sayer, P. (2010). Using the linguistic landscape as a pedagogical resource. *ELT Journal*, 64(2), 143–154. <https://doi.org/10.1093/elt/ccp051>

- Shahriari, H. (2020). The status of English in Iran. In S. Granger, M. Dupont, F. Meunier, H. Naets, & M. Paquot (Eds.), *International corpus of learner English* (pp. 206–210). Presses universitaires de Louvain.
- 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>
- Suhendi, A., & Purwarno, P. (2018). Constructivist learning theory: The contribution to foreign language learning and teaching. *KnE Social Sciences*, 3(4), 87–95. <https://doi.org/10.18502/kss.v3i4.1921>
- Tabrizi, H., & Onvani, N. (2018). The impact of employing telegram app on Iranian EFL beginners’ vocabulary teaching and learning. *Applied Research on English Language*, 7(1), 1–18. <https://doi.org/10.22108/are.2017.103310.1087>
- Victori, M., & Lockhart, W. (1995). Enhancing metacognition in self-directed language learning. *System*, 23(2), 223–234. [https://doi.org/10.1016/0346-251X\(95\)00010-H](https://doi.org/10.1016/0346-251X(95)00010-H)
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Wang, L., Bruce, C., & Hughes, H. (2011). Sociocultural theories and their application in information literacy research and education. *Australian Academic & Research Libraries*, 42(4), 296–308. <https://doi.org/10.1080/00048623.2011.10722242>
- Yabukoshi, T. (2020). Self-regulated learning processes outside the classroom: Insights from a case study of Japanese EFL students. *The Journal of Asia TEFL*, 17(3), 758–777. <http://dx.doi.org/10.18823/asiatefl.2020.17.3.1.758>
- Ying, Z. (2019). Beliefs of EFL learners towards pedagogical values of linguistic landscape in China: A case study carried out in three schools. *Journal of Education, Society and Behavioural Science*, 31(3), 1–11. <https://doi.org/10.9734/jesbs/2019/v31i3330152>
- Zarrabi, F. (2018). English in an EFL context: Teachers' and learners' motivations for English language learning. *English Language Teaching*, 11(9), 17–25. <http://doi.org/10.5539/elt.v11n9p17>
- Zarrabi, F., & Brown, J. R. (2015). English language teaching and learning analysis in Iran. *International Journal of Educational and Pedagogical Sciences*, 9(10), 3485–3493. <https://doi.org/10.5281/zenodo.1340254>

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