The impact of integrating infographics into English language instruction on mother tongue use and reading/writing performance: A systematic literature survey

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Abstract
In contemporary instructional programs for teaching English as Foreign Language (EFL) all over the world, the application of infographics has become essential for improving students' language skills, in particular reading and writing skills. In many countries worldwide, students have been encouraged through the use of infographics in their English language courses to achieve a high level of proficiency and become competent language learners. This research study aims to examine the influence of integrating infographics into the EFL reading and writing courses. To achieve this aim, the research study focuses on a systematic literature review by investigating 21 papers in the field of teaching EFL. Since students are allowed to use only English for communication in class, it appears to many students as a difficult language to learn. The findings of the literature survey indicate that one of the main obstacles to learning a foreign language seems to be the learners' native language, which must also be considered in organizing foreign language teaching curricula. Another obstacle is that learners have limited opportunities to use their English in reading and writing skills outside the classroom.

Keywords: Infographics, Teaching English as a Foreign Language, Reading and Writing Performance

Public Interest Statement

This research study constitutes a section of literature review of my PhD study. It is significant in searching for a solution to improve English language teaching programs for freshman by inserting the use of infographics at Salahaddin University in Erbil, Northern Iraq. This study reviews 21 papers in the recent literature in terms of integrating infographics in the English language teaching programs in an academic environment.

1. Introduction

Reading and writing are crucial 21st-century skills, particularly for students who learn English as a foreign language (EFL). Students are required to hone their reading and writing skills in English more to be considered as effective language learners. Trilling and Fadel (2009) emphasize that students should be capable of expressing their opinions or thoughts by writing, sharing their knowledge, beliefs, attitudes, and intentions to others to understand what they are stating, and expressing with a goal in mind. Unfortunately, most EFL students find it difficult to practice reading and writing skills in everyday life. They cannot read and write English fluently since it is not their first language, although their English curriculum includes a reading and writing course. While they are engaged in practicing their reading and writing skills, students face several challenges like being obliged to use their native language in communicating during the lessons in the classroom (Ur, 2009). To sum up the challenges described above, EFL students still find it difficult to communicate their ideas in written form, which is a problem because it leads them to believe that learning reading and writing skills in English is rather tough. This study examines reading and writing skills together because it has been noticed that there is a strong relation between reading and writing skills when learning a foreign language is considered (Yoshimura, 2009). It seems that reading and writing skills are dependent on each other and they develop together complementing each other along the process of learning a language.

To unveil an effective way of improving reading and writing skills in EFL classes, graphic visualisation may have a significant impact. When graphic tools visually display ideas, concepts, and the relationships between them, like diagrams, charts, and maps, they are referred to as graphic visualizations. These spatial representations of a linear text are used in illustrative texts. Despite visually representing complicated information in straightforward and insightful ways, graphic visualizations have different approaches (Rezaei & Sayadian, 2015). According to Luce, Lindzey, Herrnstein, and Atkinson (1988), when information is repeatedly transferred between the short-term and long-term memory systems, the biological processing system's perception of a visual text is translated into linguistic information in the short-term memory, which then yields meaning. The effort can potentially be distributed more equitably among the perceptual, attentive, and cognitive processes via representational graphics (Graham, 2005).

Students may learn from visuals in this information age to understand the content offered in English (Martix & Hodson, 2014). The capacity to decipher information from a picture is known as visual literacy. A vast amount of information may be condensed using visual literacy concisely and engagingly. As a result, providing learners with visual learning materials may be a successful alternative for improving language aspects, including reading and writing. One of the visual literacy medium examples used in teaching is infographics. According to Ferreira (2014), using an infographic or information graphic, a visual that elucidates facts with design, can help people and organizations convey ideas to their audience simply and efficiently. Noh et al. (2015) say that infographics should be utilized in higher education institutions' teaching and learning process. Students can utilize infographics as an alternative to other visual literacy materials to pique their interest in reading. Mubarok and Asri (2020) launched a study to determine how the infographic influenced their ability to write summaries. The results showed that students who received infographic-based instruction outperformed those who did not. Based on the college students, Bicen and Beheshti (2017) demonstrated how using infographics

in the learning process contributed to students' favorable reactions. According to this prior research, it can be inferred that using an infographic as a teaching tool for students is highly beneficial. Using audio-visual data will improve educators' impressions of alternate assessments, significantly impact crucial learning variables, and establish guidelines for using infographics as assessment methods (Betz, 2018). According to Smiciklas (2012), infographics are a combination of images, statistics, and designs that may assist businesses or people in efficiently communicating with their target audience. Information and data would be easier to connect since infographics depict facts, and thus clear and short quick messages are ensured by using appropriate visuals, photos, and layout.

Visualizing information increases along with the daily production, transmission, and processing of information as Evseeva, Obukhova, and Tanova (2017) and Radchenko (2018) held that an abundance of knowledge may result in excessive amounts of input, which might be difficult for some people to understand, process, and analyze. Experts assert that the massive influx of auditory, visual, and written information may cause brain overload. Roetzel (2019) agreed with Dean and Webb (2011) theories on the likelihood of cognitive overload, supporting the idea that when people are overwhelmed with knowledge, it makes them unhappy and less productive since it stifles their creativity.

Murray et al. (2017) contend that utilizing infographics to present facts improves understanding. For instance, students discussed how Florence Nightingale used pictures to show that, during the Crimean War, British men were more likely to die from preventable illnesses than from wounds received in combat. Furthermore, the preference for pictures over words is related to the superior human capacity for processing and memorizing images (Smiciklas, 2012). For instance, while building DIY furniture or equipment, users are more likely to succeed when following visual instructions(Scott, Fawkner, Oliver, & Murray, 2016). These schools of view contend that infographics aid in communicating complex, abstract, or voluminous information because they lessen the likelihood that important details will be missed or unintentionally omitted from a presentation. Because so many texts are being transformed into graphics, the information may also be presented clearly and intelligibly. Infographics are becoming more used in education and training due to the advancement of technology in classrooms and their visual appeal.

According to the studies mentioned above, attempts to comprehend the use of infographics in the past have largely been unsuccessful. The purpose of this study is to determine how the implementation of infographics affects the EFL students' speaking abilities. In this study, the impact of infographics—a form of media that is rarely employed in speaking classes, particularly in EFL situation—is examined by a systematic literature survey.

This research study aims at answering the following questions in order to reach its goal:

1. What causes EFL students to perform low in reading and writing skills?
2. What is the influence of the mother tongue (L1) on the EFL students' performance?
3. How do infographics assist in honing reading and writing skills in EFL students?

2. Methodology

This study adopted a qualitative research design that begins with content analysis of the relevant literature from research databases, including Google scholar, Web of Science, ERIC and Science Direct. Research papers were chosen by searching for keywords such as "Infographics", "Teaching English as a Foreign Language", and "Reading and Writing Performance". After that, a synthesis of the findings was done to comprehensively understand the subject under study.

2.1 Data collection instrument

"Infographics", "teaching English as a foreign language", and "reading and writing performance" were some of the keywords used to choose research publications. Research articles have been

selected and screened in accordance with the study's objectives by an extensive search across databases, including Google Scholar, Web of Science, ERIC, and Science Direct. First, the abstracts of the articles were screened, then the articles' overarching themes. Nvivo software was employed in this procedure to make it easier.

2.2 Data collection procedures

The data regarding infographics used by EFL learners have been collected through the Google Scholar Web Site. From this web site, 174 papers were examined considering the aim of this study and after filtering them, only 21 were found to be related to the subject of this study. These 21 articles were analyzed and findings were presented. As the first step of collecting data, the scope of selecting studies was i) they should be between 2014 and 2022, ii) they should be published in peer-reviewed journals, and iii) they should be conducted to EFL students. Since the main keyword of this study is infographics used in teaching English as a foreign language, only 21 articles were found to have exact relations with the focus of this study.

3. Comprehension Difficulties among English as a Foreign Language (EFL) Students

In order for EFL students to learn the language, reading is crucial as discussed in the previous sections. However, their suffering is unending because they are not equally proficient in all four language skills. As has already been discussed, EFL students have trouble understanding English-language texts, and as a result of their inability to develop their reading skills, they perform academically below average. Ahmed (2021) asserted that tertiary-level EFL students could not handle specific reading tasks, understand the subject, or make inferences. The conclusion was reached using qualitative information gathered from EFL students at a private university in Yemen. Because they could not employ efficient reading techniques, the respondents claimed that reading in English was challenging for them (cognitive, metacognitive, and socio-affective) strategies.

According to Ahmed's (2021) study, reading comprehension issues may be caused by three core ideas. According to the first hypothesis, comprehension issues are brought on by readers' inability to recognize words (word recognition). Superior readers would perform better in this scenario than their less adept colleagues because they have higher word recognition skills.

In addition, Van Allen and Zygouris-Coe (2019) thought that those with low-order cognitive abilities would find it difficult to perform tasks that required understanding. However, it is unfair to believe that only poor readers have trouble understanding what they are reading because more advanced readers may also experience difficulties. Yulia, Sulistyo, and Cahyono (2020) remarked that proficient EFL readers could have trouble comprehending how the language works in social settings. Kasim and Raisha (2017) confirmed their statements because their research on the reading comprehension problems of EFL students found that even proficient readers still have trouble connecting ideas in texts and distinguishing between primary and secondary points.

The second possibility holds that readers have trouble deciphering texts from a syntactic and semantic perspective because they cannot utilize the structural constraints of language. Nation's (2019) perspective of the decoding principle inside the Simple View of Reading is clear. According to these experts, reading comprehension is attained when readers can decode printed words and apply their linguistic expertise to comprehend spoken language (RC=Dx LC) (Nation, 2019). Nation (2019) also asserted that without each component, understanding is impossible. (see Figure 13).
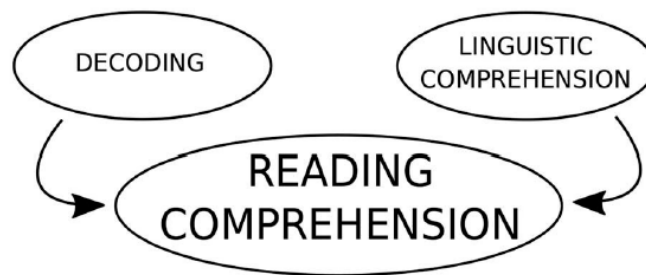
Figure 1. Simple View of Reading's Concept of Reading Comprehension.
(Source: Figure 13 from Nation, 2019)

Castles, Rastle, and Nation (2018) agreed that reading should be done primarily for comprehension, not only for knowledge. However, the assumption that understanding is obtained as long as the reader vocally decodes and interprets meaning is not ideal for the Simple approach. The concept disregards the requirement that readers understand texts with varying complexity. The crucial linguistic and cognitive aspects of comprehending are ignored when it is assumed that everyone is literate. Furthermore, the Simple perspective does not consider the necessity for readers to understand what they are reading. They must use their verbal competency, prior knowledge, and inference skills to absorb material effectively.

The third idea asserts that it can be challenging for readers to extrapolate information from texts and combine ideas. The inference was recognized as one of the critical reading skills by most researchers studying reading comprehension. For example, Lestari, Fitriani, and Erdiana (2017) demonstrated that EFL learners' poor comprehension of the grammatical structures in the texts and a lack of vocabulary in the English language are factors in their failure to comprehend what they read. The conclusion is impossible since they cannot decode and grasp meaning when they cannot read as a result of these two issues. Their findings agree with Yuvirawan, Listia, and Amelia (2021), who asserted that teaching EFL students how to infer using appropriate reading techniques is essential. Some recommended strategies include using various reading approaches, group learning, and vocabulary development.

The three pillars cover the crucial factors affecting the reading comprehension skills of EFL students. The study examined here highlighted how important it is to provide these individuals with vocabulary-building or vocabulary growth help so they can use different reading strategies while enhancing their language skills, increasing their reading comprehension ability.

4. **Effects of Employing Mother Tongue (L1) in EFL Classes**

Many academics have examined and argued about employing the mother tongue (L1) in EFL classes (Durmuş, 2019; Ngoc & Yen, 2018; Shin, Dixon, & Choi, 2020). Although some believe that the use of the mother tongue helps EFL learners learn faster (Durmuş, 2019; Ngoc and Yen, 2018; Shin et al., 2020; Turin, 2017; Yadav, 2014) advocated for the strategic use of mother tongue to supplement learning as opposed to outright discarding it.

Frequent use of the mother tongue can make learning more difficult. Teachers who try to create a classroom environment where only English is spoken may discover that their efforts to engage their students are limited. Students will often shy away from conversations due to their limited language understanding. It is permissible to use your mother tongue to promote communication when appropriate. Durmuş (2019), Ngoc and Yen (2018), Shin et al. (2020) are acceptable for usage with native languages if teachers are skilled code-switchers who can easily switch between languages to enhance pupils' understanding. It is essential to establish an atmosphere for EFL students where they feel comfortable studying and using the target language since this will affect how well the teaching and learning process goes. Teachers who instruct English as a second or foreign language must ensure that

the learning process runs smoothly and provide an environment that will inspire pupils to learn (Ashraf & Zolfaghari, 2018).

Many students struggle to acquire English since they only encounter it at school during English classes. A key barrier to learning a new language is the original language, which must also be considered (Al-Nasser, 2015). The lack of exposure to the language outside the classroom limits most learners' opportunities to use it for verbal and written interactions with those around them.

5. Use of Technology and Infographics in Education

As technology becomes increasingly prevalent in our culture, adapting technological procedures in an educational context is no longer seen as impossible (Johnson, Alahi, & Fei-Fei, 2016; Ozdamlı, Kocakoyun, Sahin, & Akdag, 2016). The adjustments concerned the preparation of instructional materials, their use, and if they are. According to Akcil, Uzunboylu, and Kinik (2021), since they must master and adjust to technology in the classroom, teachers have duties beyond just teaching. It follows that the use of information and communication technology (ICT) in the classroom by those who instruct in such languages is expected.

Berg-Beckhoff, Nielsen, Ladekjær Larsen, and health (2017) present ICT as a field of technology that enables access through telecommunications, including computers, wireless networks, cell phones, and other mobile devices, as well as the Internet. Using interactive and dynamic information from ICT in language acquisition improves the teaching and learning process, boosts student engagement and gives individualized instructions (Afrin, 2014; Alkamel, Chouthaiwale, & literature-JOELL, 2018; Fatema & Sultana, 2020). ICT use in classrooms refers to computer hardware and software for information-gathering, teaching, and learning activities. Akcil et al. (2021) also mentioned that using technology in the classroom is a type of teaching.

In areas of second language acquisition (SLA), Reinders and Stockwell (2017) suggested that using computers in the classroom enhanced language acquisition while enabling instructors to build engaging and dynamic learning environments (Ghavifekr & Rosdy, 2015; Sahoo, 2019). Sahoo (2019) pointed out that for instructors to properly incorporate ICT, they must embrace various instructional strategies. Since ICT allows students to participate actively while professors serve as facilitators, a shift in tactics is unavoidable. As media should not be disregarded, integrating technology growth and education also enables the continued development of students' abilities and talents.

While maintaining the requirement to provide a stimulating and engaging learning environment, the primary goal of employing technology in education is to enhance the process of knowledge transfer from teachers to students (Fadiran, Biljon, & Schoeman, 2020; Ghavifekr & Rosdy, 2015; Noh et al., 2015). Additionally, technology development has given rise to a diverse range of media for teaching and learning about reading, including static and animated texts, audio stories, static diagrams, photos, photographs, animations, and videos. In order to enable technologically oriented teaching aids or media, classrooms must have the necessary infrastructure and resources.

Teachers typically utilize already-existing computer programs to design visualizations for their students, such as Microsoft PowerPoint. However, the choice of applications also depends on the teachers' preferences. Microsoft PowerPoint is more popular because it comes preinstalled on most computers with access to Microsoft Office. It enables teachers to present ideas or notes to students to help them achieve the predetermined learning objectives.

Table 1

Use of Infographics in Five Situations Compiled from (Lamb & Johnson, 2014).

No.	Purpose	Explanation
1	Organization of ideas	Ideas to be converted to graphics or illustrations are organized carefully to ensure cohesion and clarity.
2	Illustration of concepts	Complex concepts or ideas are visually illustrated
3	Data comparison	Data from different sources can be presented effectively in the form of visuals
4	Transformation of data to comprehensible visuals	Different types of data, for instance, statistics, are presented in the forms of graphs or charts
5	Utilization of suitable visuals instead of heavy reliance on texts to increase audience engagement.	Data or visuals are presented as relatable and appealing to help the audience understand the intended meaning. The use of texts will be minimal to prevent overloading during knowledge transfer.

Use of Infographics in Teaching and Learning

Language instructors must advance by incorporating Information and Communication Technology (ICT) into their instruction, given how technology is changing the face of education. Because of their popularity and quick development, instructors should use computers to enhance language teaching and learning. Additionally, the need to teach 21st-century skills is stressed throughout the globe to create competent people accessing and using knowledge in many circumstances (Alrwele, 2017). According to Drake and Reid (2018), Students need to learn to be lifelong learners who can manage and cope with large amounts of material, think critically to solve problems, and are good at separating truth from opinion and dependable information.

Infographics are a useful resource that may enhance topic and skill mastery while supporting learning. According to Basco (2020), as infographics present information visually along with brief explanatory texts to ensure clarity, the knowledge is transferred to the audience, in this case, students. Infographics' diversity regarding how information is represented allows ideas to be communicated to everyone regardless of educational background.

Noh et al. (2015) stated that infographics' versatility is due to its three key elements, namely i) content, explanatory texts, data etc., ii) visual components, selected graphics/pictures, graphs, arrows etc., and iii) knowledge, embedded messages, conclusions, summaries etc. These components not only aid in imparting knowledge to the intended audience efficiently but are also simple to control or modify to meet the audience's demands.

The impact of infographics on teaching and learning, specifically idiomatic phrases, has been the subject of substantial research (Alrajhi, 2020), grammar (Hamid, Halim, Sahrir, & Studies, 2020; Nhan & Yen, 2021), vocabulary and reading (Khan, 2021; Kongwat & Sukavatee, 2019; Meialldy; Radchenko, 2018) learning engagement and memory recall (Alqudah, Bidin, & Hussin, 2019; Alrwele, 2017; Basco, 2020; Chicca & Chunta, 2020; Hsiao, Laquatra, Johnson, & Smolic, 2018; Naparin & Saad, 2017; Nuhoğlu Kibar, Sullivan, & Akkoyunlu, 2019; Polowsky & Steciuch, 2020; Shanks, Izumi, Sun, Martin, & Byker Shanks, 2017; Surketi & Sitawati, 2019; Waller, 2020; Yildirim, 2016); independent learning and self-efficacy (Alrwele, 2017; Ozdamli & Ozdal, 2018), critical thinking (Al-Mohammadi, 2017; Basco, 2020), language and culture (Khan, 2021); visual literacy(Alyahya, 2019; Bicen & Beheshti, 2017; Damyanov & Tsankov, 2018; López Cupita & Puerta Franco, 2019; Noh et al., 2015; Skenteridou & Tsiakis, 2021) and writing (Maamuujav, Krishnan, & Collins, 2020; Mubarok & Asri, 2020).

It may be assumed that infographics can be utilized and customized in every situation based on the selected empirical research examining their usage in educational contexts. Many studies, such as Alrwele (2017), Surketi and Sitawati (2019), and Yildirim (2016), claimed that using infographics in the classroom motivates students to take ownership of their education, start conversations, and collaborate with their classmates. Infographics are a type of media that may encourage learning and cooperation because they go beyond just turning information into visuals. According to studies and conclusions from various scholars, the discussion in the following sections focuses on how infographics are used in schools.

5.1 Using infographics in reading classes

Numerous studies have been conducted in the areas of reading comprehension, such as Ahmed (2021), Al-Jarrah and Ismail (2018), Elleman and Oslund (2019), Lestari et al. (2017), Nation (2019), Rianto (2021), Rochman (2017), Smith, Snow, Serry, and Hammond (2021), and Suraprajit (2019). Shea and Ceprano (2017) characterized reading as imparting knowledge to readers to broaden their horizons and recognize, disseminate, and develop an interest in their quest to comprehend the world around them. Elleman and Oslund (2019) indicated that when readers read, their first objective is to comprehend what is being read.

However, reading literature that has been written in the target language may be difficult for second or foreign-language learners. Because they must draw on their prior knowledge, experience, emotions, and current needs to connect the new information with the old, readers must be conversant with the codes and meaning of the texts in order to grasp them correctly. To put it another way, comprehension requires readers to conclude written and printed words.

5.2 Using infographics in writing classes

Writing is one of the main skills that infographics are used in teaching it. Teaching EFL students to write is not easy. Teachers must concentrate on using various strategies that could not only pique their interest in learning to write but also consider their proficiency levels, areas of interest, and goals when developing instruction to support the learning process in a writing classroom. Think Aloud Protocols (TAPs) (Arifin, 2020), free writing (Alharthi, 2021), and collaborative writing (Calzada & Mayo, 2021) as a strategy to improve learning, educators have to think about including visual representation. According to Buckley and Nerantzi (2020), Visuals may be used in educational contexts when they are intended to educate students on how to organize, generate, and/or finish activities. Additionally, the procedure will aid learners in organizing and communicating their ideas.

Despite being one of the more crucial productive abilities, infographics in writing classrooms have received little attention in recent publications. There is an urgent need to explore further to ascertain if infographics may aid in improving writing performance, especially among foreign language learners, since other research examined in this section largely focused on infographics' effect on vocabulary enhancement, linguistics, and reading comprehension.

Using infographics in a language classroom is lauded as a method that enhances learning (Dahmash, Al-Hamid, & Alrajhi, 2017). Several studies have found that using infographics and related materials may considerably enhance students' learning experiences, even if they are not as commonly utilized as other mediums like PowerPoint or Word documents.

While many people have the misconception that infographics are more suitable for usage in technical and corporate settings, numerous language researchers have noted that the medium is as successful in a setting where languages are taught and learned. To ascertain if infographics might enhance students' comprehension of idiomatic idioms and their usage in English as a foreign language (EFL), Alrajhi (2020), who developed the dual coding (DCT) and cognitive load (CLT) theories that served as the foundation for the mixed-method study observed that the usage of static infographics improved

the students' comprehension and familiarity with idioms. In addition, the study's findings showed that the experimental group performed better on their post-test. In addition to the positive test results, the researcher noted that employing infographics (static) increased students' engagement, self-efficacy, knowledge retention, and information recall and lowered their emotional filter, making the learning process less daunting and more effective.

Al Hosni (2016) explored how well infographics worked as a teaching technique to improve students' understanding and memory recall. At the Sultan Qaboos University Language Center, participants in the English for Commerce Program (Level six students) were randomly divided into two groups: the experimental group and the control group.

Pyankova (2020) describes the use of infographics in the instruction of English to young students. The author offers websites with pre-made infographics and tools and instructions for making one's infographics. Additionally, it provides several illustrations of the author's own infographics.

Dewantari, Utami, and Santosa (2021) claimed that independent learning helps students learn the subject independently, but the visual media still does not support this. Infographics are regarded as an excellent teaching tool for English for self-directed learning. According to this study, creating this infographic teaching medium can help teachers improve their technology-based teaching techniques.

Wu and Kuwajima (2022) emphasised learning outcomes and motivation to learn English; researchers looked into the effects of utilizing infographics to supplement traditional teaching methods in EFL classes. The simple past/past continuous grammatical points were made as an infographic and used to complement the textbook-related material.

Golubeva, Skudnyakova, Kasatkina, Dandanova, and Dagbaeva (2021) targeted a thorough evaluation of the requirements for integrating visual content into the learning process in the remote learning foreign language course. The paper highlights the best visualisation tools based on the outcomes of using visualization in distance English language learning.

Manowong (2017) implemented an intervention to promote English reading for EFL learners using online tools in a classroom. The information was acquired from questionnaires and student reflections. The major learning assignment was built on infographics, and other web tools, including Padlet, Google Docs, and Canva, were also used.

Dipa, Utami, and Santosa (2022) aimed to use infographics as a medium for teaching English to junior high school students in the eighth grade. English teachers may utilize infographics to teach every subject to eighth graders. Design, development, and assessment were the three stages of this study's design and development methodology.

Nhan and Yen (2021) addressed how more English language teachers use infographics. Only a few studies have examined how infographics affect grammar learners' motivation. Sixty pupils from a high school in the Mekong Delta, Vietnam, participated in the study using an experimental research approach. To gauge the pupils' motivation following treatment, a questionnaire was created.

Korniush (2020) focuses on the definition of "infographics." In blended learning and edutainment, infographics are a successful instructional medium. Students' critical thinking abilities will undoubtedly be enhanced using a computer, mobile, or other software to create an appealing image.

Alford (2019) explains how teacher educators can utilize infographics to help preserve ELA teachers get ready to tackle the challenging task of raising mindful consumers and critical producers of this 21st-century genre. What is known about infographics in education is laid out in this article. It presents a project from a writing strategies course in which students investigated the infographic genre.

Table 2

Selected Research Papers from the Systematic Literature Review.

Author (s)	Title	Year	Published in
Alrwele, N. S.	Effects of infographics on student achievement and students' perceptions of the impacts of infographics.	2017	*Journal of Education Human Development*
Surketi, G., & Sitawati, A. A. R.	Mastering speaking skill through project-based learning with infographics: perceptions and challenges.	2019	*ISoLEC Proceedings*
Dahmash, A. B., Al-Hamid, A., & Alrajhi, M.	Using infographics in the teaching of linguistics.	2017	*Arab World English Journal*
Alrajhi, A. S.	Static infographics effects on the receptive knowledge of idiomatic expressions.	2020	*Indonesian Journal of Applied Linguistics*
Calzada, A., & Mayo, M. d. P. G.	Effects of proficiency and collaborative work on child EFL individual dictogloss writing.	2021	*Language Teaching for Young Learners*
Buckley, C., & Nerantzi, C.	Effective use of visual representation in research and teaching within higher education.	2020	*International Journal of Management Applied Research*
Yildirim, S.	Infographics for educational purposes: Their structure, properties and reader approaches.	2016	*Turkish Online Journal of Educational Technology-TOJET*
Basco, R. O.	Effectiveness of science infographics in improving academic performance among sixth grade pupils of one laboratory school in the Philippines.	2020	*Research in Pedagogy*
Radchenko, Y.	Functions of Infographics in Teaching a Foreign Language in High School	2018	*Professional Culture of the Specialist of the Future.*
Rezaei, N., & Sayadian, S.	The impact of infographics on Iranian EFL learners' grammar learning.	2015	*Journal of Applied Linguistics Language Research*

Table 2 (*Continued*)

Author (s)	Title	Year	Published in
Al-Mohammadi, N.	Effectiveness of using infographics as an approach for teaching programming fundamentals on developing analytical thinking skills for high school students in the city of Makkah in Saudi Arabia.	2017	*Global Journal of Educational Studies*
Al Hosni, J.	The power of image in English language teaching.	2016	*Journal of Teaching English for Specific Academic Purposes*
Pyankova, A.	Methodological Potential Of Infographics In Teaching English To Young Learners	2020	***АКТУАЛЬНЫЕ ПРОБЛЕМЫ СОВРЕМЕННОГО ОБЩЕСТВА***

Dewantari, F., Utami, I. G. A. L. P., & Santosa, M. H.	Infographics and independent learning for English learning in the secondary level context.	2021	*Journal on English as a Foreign Language*
Wu, M., & Kuwajima, K.	The Effects of Infographics on Enhancing Language Learning Outcomes and Motivation in a Japanese EFL Context.	2022	*European Journal of Foreign Language Teaching*
Golubeva, T. I., Skudnyakova, E. V., Kasatkina, N. N., Dandanova, S. V., & Dagbaeva, O. I.	The impact of visualization tools in distance english language learning: the experience of the russian university teachers.	2021	*Revista Tempos e Espaços em Educação*
Manowong, S.	Incorporating online tools to promote English reading for EFL learners: an action research study.	2017	*Pasaa Paritat Journal*
Dipa, P. S., Utami, I. G. A. L. P., & Santosa, M. H.	English Learning Using Infographics for Balinese Secondary School Students	2022	*PANYONARA: Journal of English Education*
Nhan, L. K., & Yen, P. H.	The Impact of Using Infographics to Teach Grammar on EFL Students'learning Motivation.	2021	*European Journal of Foreign Language Teaching*
Korniush, H.	Theoretical evaluation of the potential of infographics as powerful tools in English language teaching.	2020	*Problems of Engineer-Pedagogical Education*
Alford, K.	The rise of infographics: Why teachers and teacher educators should take heed.	2019	*The Journal of Writing Teacher Education*

6. Conclusion

One of today's necessities is learning a foreign or second language. Students have been urged to practice and learn English more frequently in many different nations worldwide to improve their reading and writing skills. This study makes an effort to examine infographics as a way that is underutilized in education classes, particularly in English Language Education. It intended to determine how infographics affected students' reading and writing skills by conducting thorough literature reviews that considered 21 related studies. Inference is one of the crucial reading skills, according to the majority of experts who have studied reading comprehension. Numerous studies have demonstrated that a lack of vocabulary in the English language and a poor comprehension of the grammatical structures in the texts are two factors contributing to EFL learners' poor comprehension abilities and inability to draw conclusions from what they read. Due to their inability to analyze and comprehend the meaning, people who are unable to read cannot draw any conclusions from the inference. The study's conclusions indicate that it is essential to teach EFL students appropriate reading methods for inference. A few suggested tactics are different reading methods, group instruction, and vocabulary building.

Since they are allowed to use only English in class, then it becomes a language that many students find difficult to acquire. The findings indicate that the main obstacle to learning a new language is people's native tongue, which must also be taken into account in designing foreign language teaching programs like EFL. Necessary measures during designing foreign language teaching programs should also be taken to provide opportunities for the learners to use their language skills outside the classroom through carefully designed activities, projects, tasks, or assignments. Another obstacle is that EFL

learners' limited exposure to using the foreign language outside of the classroom. Therefore, the majority of foreign language learners do not have adequate opportunities to connect verbally and in narrative form with others around them in English.

Conflicts of Interest:
The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.

Disclaimer Statement
This study is an initial part of literature review concerning the evaluation of 21 papers in recent literature on the use of infographics in different disciplines mostly including English language teaching. It is part of my thesis entitled "The Impact of Implementing Infographics in Teaching English on Mother Tongue Use and Reading-Writing Performancee" for awarding PhD degree at the Department of English Language Teaching, Near East University, North Cyprus. My supervisors are Assoc. Prof. Dr. Hanife Bensen Bostanci and Prof. Dr. Sabri Koç.

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