

The effects of using pictograms during the English teaching-learning process in primary school

Los efectos del uso de pictogramas durante el proceso de enseñanza-aprendizaje del inglés en la escuela primaria

Cristina Paola Pauzhi Coellar, Juanita Argudo-Serrano

ABSTRACT

In the realm of Primary English as a Foreign Language (EFL) education, educators often encounter diverse difficulties in conveying instructions and facilitating student learning. This study recognizes the significance of employing visuals and straightforward language to enhance the teaching-learning process. Within this context, pictograms emerge as a valuable and innovative resource for EFL teachers, particularly in teaching English to children. The aim of this is to investigate the effect of pictograms on English education in primary schools. To achieve a comprehensive understanding, a slight adjustment to the class methodology was made. To operationalize this approach, a pre- and post-test, a survey, and an open-ended questionnaire were administered to collect data, facilitating a clear analysis. The first questionnaire involved three teachers who serve as heads of the English department, the survey included responses from nine primary English teachers, and the pre- and post-test garnered results from 39 primary school students. Results elucidate students' performance, and teachers, and heads of the English department's perceptions of how the use of pictograms influences vocabulary acquisition, engagement, motivation, reading comprehension, and language production in English teaching and learning. By reordering the methodology and refining the ideas, the study may provide a clearer and more effective exploration of the impact of pictograms on English education in primary schools.

Keywords: Effect; pictograms; primary education; english; perceptions.

Cristina Paola Pauzhi Coellar

Universidad Católica de Cuenca | Cuenca | Ecuador cristina.pauzhi@ucacue.edu.ec https://orcid.org/0009-0002-1631-8999

Juanita Argudo-Serrano Universidad Católica de Cuenca | Cuenca | Ecuador juanita.argudo@ucacue.edu.ec http://orcid.org/0000-0002-3337-7803

http://doi.org/10.46652/rgn.v9i39.1141 ISSN 2477-9083 Vol. 9 No. 39 enero-marzo, 2024, e2401141 Quito, Ecuador Enviado: septimbre 22, 2023 Aceptado: noviembre 27, 2023 Publicado: diciembre 13, 2023 Publicación Continua





RESUMEN

En el ámbito de la enseñanza primaria del inglés como lengua extranjera (EFL), los educadores encuentran a menudo diversas dificultades para transmitir instrucciones y facilitar el aprendizaje de los alumnos. Este estudio reconoce la importancia de emplear elementos visuales y un lenguaje directo para mejorar el proceso de enseñanza-aprendizaje. En este contexto, los pictogramas surgen como un recurso valioso e innovador para los profesores de EFL, especialmente en la enseñanza del inglés a niños. El objetivo de este trabajo es investigar el efecto de los pictogramas en la enseñanza del inglés en la escuela primaria. Para lograr una comprensión exhaustiva, se realizó un ligero ajuste en la metodología de la clase. Para operacionalizar este enfoque, se administraron una prueba previa y posterior, una encuesta y un cuestionario abierto para recopilar datos, lo que facilitó un análisis claro. En el primer cuestionario participaron tres profesores que ejercen de jefes del departamento de inglés, la encuesta incluyó respuestas de nueve profesores de inglés de primaria, y la prueba previa y posterior obtuvo resultados de 39 alumnos de primaria. Los resultados dilucidan el rendimiento de los alumnos y las percepciones de los profesores y jefes del departamento de inglés sobre cómo influye el uso de pictogramas en la adquisición de vocabulario, el compromiso, la motivación, la comprensión lectora y la producción lingüística en la enseñanza y el aprendizaje del inglés. Al reordenar la metodología y refinar las ideas, el estudio puede proporcionar una exploración más clara y eficaz del impacto de los pictogramas en la enseñanza del inglés en primaria. Palabras clave: Efecto; pictogramas; educación primaria; inglés; percepciones.

Theoretical Framework

It is essential to establish a background about important terms that are useful in order to understand in a better way the terminology used in this work.

Pictogram

Adenekan (2016; as cited in Adeniyi et al., 2022) defined a pictogram as a representation in the form of pictures that convey a broad meaning and a relation among data. When discussing pictograms, one refers to graphic representations of meaning conveyed through figures that serve the purpose of transmitting knowledge, action, or specific information. The idea behind these illustrations can be perceived by the receiver through visual interpretation of the expressed content.

A pictogram also known as instructional material is a learning resource or educational tool used by educators to engage the learning of new content in learners (Elegbede, 2015). Also, Mendoza (2014), alluded that the type of pictogram used by the teacher also depends on different factors such as the topic, the level, or the age that the student or group of students belong to.

It is also important to consider that the instructional materials could be something contemporary to avoid going back to the same materials that had been used for many years (Mendoza, 2014; Zúñiga, 2021). Erickson (2007), emphasized the idea that those actual instructional materials are a predominant source of meaning for learners since they are focused on the study of important real things that stimulate the interest of the learners. Also, the author pointed out that this special characteristic tends to make the teaching and learning process easier and more effective among not only students but also teachers.

Incorporating pictures alongside text can help students better understand the meaning of the text and engage more actively in the reading process (Razalli et al., 2018). Lamour (2015), stated that the use of pictograms involves the integration of words and visuals, which collectively serve the same purpose of illustrating student learning. The same author emphasized that students are given authority over their content through this visual design approach, which also frees them to recognize various connections between concepts and aspects.

Importance of the use of pictograms in education

Lamour (2015), argued that images serve a dual purpose, providing aesthetic value and conveying meaning, which makes them suitable for language teaching material design. Based on it, since pictograms are methodological and strategic resources that make students focus their attention on them, it is of great importance to the teacher. Using pictograms, the teacher can work on concepts directed to visual memory, associating actions, words, people, or places and establishing meanings through these illustrations, which significantly help to increase the students' vocabulary (Lamour, 2015; Shabiralyani, et al., 2015; Zúñiga,2021).

These graphic illustrations or pictograms could be developed progressively through the use and incorporation of specific texts that allow the schoolchild to express himself/herself, recognize grammar, understand the text, and promote or develop linguistic competences. Also, Malamed (2015), supported the idea that pictograms can communicate a lot of meanings which has great pedagogical potential. In the same vein, Erickson (2007), stated some important points that summarize the importance of using pictograms as follows:

- a. It helps the teacher to provide a meaningful source of information.
- b. It provides the teacher with the view of extending learners' experience.
- c. It provides the teacher interest with compelling spring broad into a wide variety of learning activities.
- d. It assists the teacher to save time and effort and to make essential materials available.

Erickson (2007), stated some important points that summarize the importance of using pictograms as follows:

- a. It helps the teacher to provide a meaningful source of information.
- b. It provides the teacher with the view of extending learners' experience.
- c. It provides the teacher interest with compelling spring broad into a wide variety of learning activities.
- d. It assists the teacher to save time and effort and to make essential materials available.

Usefulness of pictograms

Lascano (2019), emphasized that pictograms encourage the learning process and also tend to promote improvements in the linguistic skills and competencies of students, especially at the school level. Furthermore, the same author indicates that pictograms can be useful for the development of the communication process in each learner. Nowadays, as Goldstein (2016), mentioned English teachers are becoming more and more concerned with the visual components they use as their teaching materials, and this concern extends beyond mere aesthetic value. The metalinguistic features that pictograms offer allow learners to interpret them faster than text since the kids draw before writing or reading (Zúñiga, 2021).

Besides, pictograms can be used on the educational level to establish patterns and routines with activities to be developed that are also connected to the noticeable improvement in communication, acquisition of new languages, phonological improvement, and enhancement of skills related to writing and spelling words (Lascano, 2019).

Tomlinson and Masuhara (2017), have suggested some benefits that are directly produced by the use of pictograms:

- 1. Provide a visual description or explanation about something that could be unfamiliar to the learner.
- 2. Provide a context that includes the main factors involved in the teaching topic.
- 3. Show procedures (e.g., How to use a machine, how to play a new game).
- 4. Induce affective responses such as curiosity, interest, laughter, etc.
- 5. Elicit thoughts and reactions.
- 6. Give an aesthetic experience.

Likewise, in the EFL context, through the use of illustrations, students can make connections between actions or objects and the corresponding images, so this association allows them to establish and reinforce their learning process (Lascano, 2019). By identifying the illustration with a word, students can also link the correct way of writing the word. Additionally, when teachers use phonetics, students can connect the meaning of the word to its pronunciation (Lascano, 2019; Zúñiga, 2021). The same authors agreed with the idea that this process helps students associate the meaning of the illustration with the correct way to write it and later with its pronunciation.

Dual-coding theory

Allan Paivio (2013), introduced the dual-coding theory, which explains that verbal processes and images are different systems for encoding information. In this cognitive model, images are used for non-verbal processes, while logo gens are employed for verbal processes as representational units (Zúñiga, 2021).

According to Paivio (2013), the first documented use of images with pedagogical purposes was with the use of the book Civitas Solis (The City of the Sun) by Campanella (1993) and also with the publication of the book Orbis Sensualium Pictus (The World Explained in Images) written by John Amos Comenius (as cited in Clark & Paivio, 1991) which main purpose was to lead the readers learn Latin and other languages. The innovative features that those books contained were that they included images with headings, numbers, and descriptions classified into different categories (Clark & Paivio, 1991). The same authors indicated that the dual-coding theory started to work by focusing on teaching knowledge using images, which has great educational potential.

It could be a reason why the current EFL teachers tried to communicate the subject matter by using both verbal and non-verbal means, so in this way, the students would achieve learning gains as a result.

Introduction

In the context of primary education, effective communication is vital to ensure young students grasp and understand essential concepts according to their level, that is why one powerful tool that aids in this attempt is the use of pictograms (Omolara, 2015; as cited in Adeniyi et al., 2022). Pictograms are visual representations that convey meaning through simple, universally recognizable symbols, making them an ideal resource for enhancing communication and comprehension among young learners (Lascano, 2019; Tigse & Suntasig, 2022).

Pictograms have been in use since ancient civilizations, where they employed visual representations to convey information, ideas, and narratives about different situations. Today, pictograms continue to play a significant role in primary education, serving as a bridge between written language and visual comprehension (Lamour, 2015). Additionally, Lamour (2015), emphasized the idea that these intuitive and engaging images enable children to understand concepts, instructions, and information more easily, particularly when language barriers or literacy challenges exist; those challenges could be related to the contrast between the mother tongue and the new language.

One key advantage of using pictograms in primary education is their ability to foster the child's physical, emotional, and intellectual growth since it would encourage the child's holistic education in preparation for their future passage through the following educational levels (Tigse & Suntasig, 2022). The same authors emphasized that these visual symbols can effectively trans-

cend linguistic and cultural boundaries, allowing students from different backgrounds and language proficiency levels to access and participate in the learning process. Pictograms provide a common visual language that encourages collaboration, participation, and a sense of belonging among all students, regardless of their individual abilities or language backgrounds (Takasaki & Mori, 2007; Wei, 2022).

Moreover, pictograms stimulate the development of critical thinking skills and enhance cognitive abilities in young learners (Lamour, 2015; Mendoza, 2014; Zúñiga, 2021). The authors indicated that through decoding and interpreting pictograms, children engage in visual problem-solving, pattern recognition, and logical reasoning activities. Pictograms encourage students to observe, analyze, and make connections between symbols and their corresponding meanings, thereby fostering cognitive development and visual literacy skills (Lamour, 2015; Mendoza, 2014; Zúñiga, 2021).

Furthermore, Zúñiga (2021), indicated that the use of pictograms supports the development of communication skills. As children encounter pictograms in various educational materials, they learn to associate symbols with specific concepts or actions (Zúñiga, 2021). The same author also mentioned that this process enhances their ability to express themselves, make connections between words and visuals, and communicate their ideas effectively.

Thus, a factor that may be overlooked is the one related to the students', teachers', and heads of the English department's perceptions due to the implementation of pictograms during English classes. Additionally, the influence of using pictograms during the teaching and learning English process in Primary Education will also be analyzed.

Methodology

The integration of visual aids, such as pictograms, has the potential to greatly enhance comprehension and engagement in language education, particularly for primary school students. This study adopts a mixed-methods research design, qualitative and quantitative data were collected through an open-ended questionnaire, a survey, and tests as outlined by Creswell (2009), who emphasizes the importance of integrating both qualitative and quantitative data to gain a richer and more nuanced understanding of the research phenomenon. The participants of the study are (1) students at a school in Cuenca, Ecuador aged five to six, (2) heads of the English department who as one of their duties have to observe EFL teachers' classes, and (3) primary EFL teachers. The research aims to provide insight into the diverse perspectives and experiences regarding the use of pictograms. This section provides insights into the comprehensive class methodology employed, drawing on ideas proposed by Adeniyi et al. (2022), and Fraenkel et al. (2012), and the imperative considerations of assigning codes to the participants as advocated by Creswell (2009). The subsequent sections delineate the research methods, participant details, data-gathering processes, and the analytical framework deployed to discern both qualitative and quantitative aspects of the study.

Type of research

Creswell (2009), provides a comprehensive overview of different research designs and methods, including their strengths and weaknesses. He emphasizes the importance of selecting an appropriate research design and method that aligns with the research question and objectives. That is the reason why a mixed-method design was selected for this study since it combines both qualitative and quantitative approaches to provide a more comprehensive understanding of a research problem. This was evidenced using a pre- and port-test, a survey, and an open-ended questionnaire.

Research methods, techniques, and instruments

Detail of procedures and tools for the selection of participants, data gathering, and analysis will be detailed below to gain a better understanding of the research methods, techniques, and instruments used in this study.

The study employed a mixed-method approach combining, a five-point pre-test and posttest that includes four sub-skills to be applied orally to students who belong to the first and second grades in the primary level. The tests have a rubric which is commonly used for the A1 level and was previously tested and approved by the heads of the English area and teachers of the institution. Also, close- and open-ended questions from the teachers and heads of the English department's survey and questionnaire were used to inquire about their perceptions of the implementation of pictograms in the English class. A comprehensive methodology for studying the impact of pictorial elements on language instruction includes detailed participant selection, survey, and questionnaire design for EFL teachers and heads of the English department, and a pre-and posttest for students. It is also important to mention that a validation process to ensure that the instruments were appropriate to collect the necessary data took place, some adjustments based on the feedback provided by colleagues and their students were considered. It could help the research design to gain greater robustness.

Participants

The participants of the study are divided into three groups, (1) students, (2) heads of the English department, and (3) primary EFL teachers. The first group consists of thirty-nine students, boys, and girls. It was thoughtfully selected with the express consent of parents. This group of students possesses an A1 level according to the Common European Framework of Reference for Languages (CEFR) that pertains to the first and second school years in which the students are enrolled. Such participant information aligns with the comprehensive approach advocated by Adeniyi et al. (2022), and the validation processes recommended by Fraenkel et al. (2012), which refers to a procedure used to test and evaluate the effectiveness and reliability of research instruments. The second group is comprised of three teachers who are the heads of the English

department and are aged between 29 to 32 and their English level is B2 according to the CEFR. They have been teaching EFL classes for more than five years at different levels. This group of teachers possesses a degree in education specializing in EFL teaching and they have approved the Certificate in Teaching English to Speakers of Other Languages (CELTA) course. Moving to the third group, nine proficient English teachers specializing in primary education, aged between 20 and 45, form a fundamental part of this study. Their diverse backgrounds, academic degrees, and years of teaching experience, ranging from beginner to seasoned educators, bring valuable insights into the impact of pictograms on language instruction. These educators, possessing English proficiency levels of B2 and C1 according to the CEFR, underwent a survey designed to delve into their perceptions and practices.

To identify the participants, as Creswell (2009), mentions, it is necessary to assign a code for individuals and places to protect identities. For that reason, each participant will be assigned a letter and a number according to the group they belong to instead of using the real name and course.

The exclusion criterion was focused on one hand, teachers who do not know anything about the use of pictograms during English classes; to accomplish this exclusion criterion, there is a filter question in the teachers' survey. On the other hand, a permission document was mailed to each student's representative; students who did not have their parents' permission to be part of this study were excluded.

Data gathering

Data were collected using a pre- and a post-test, an open-ended questionnaire, and a survey with close- and open-ended questions to give a full description of the findings by drawing inferences and conclusions (Adeniyi et al., 2022). The pre-test was used to evaluate the students' English proficiency. After the pre-test was conducted, this group of students received the treatment which consisted of implementing pictograms in their English classes. Then the post-test was used to measure these students' English proficiency improvement. The open-ended questionnaire was applied to the three heads of the English department, and finally, the survey was for the nine EFL teachers.

A small-scale study was applied before conducting the actual study in order to reveal the defects in the research instruments (Fraenkel et al., 2012). After this validation process, some changes were made to improve the question structures and ensure their successful application. The changes were applied based on teachers' and students' recommendations.

The idea that using the participants' mother tongue can lead to a better understanding of the questions and more authentic answers is supported by Filep (2009). He mentions that using the participants' mother tongue in surveys and interviews can lead to more accurate and reliable data. This is because participants are more likely to understand the questions and provide more detailed and genuine responses when they are using their native language.

Analysis

Once the results from the questionnaire, survey, and pre and post-tests were obtained, they were analyzed according to their type. In this way, qualitative data is coded using content analysis by the use of keywords or terms mentioned by the participants, and the quantitative data is analyzed with the SPSS V27 program and statistical tables and figures containing the required information that accomplishes the purposes of the study.

Data Analysis and Results

Quantitative results

For the impact measurement section, the statistical program SPSS V27 and table editing in Excel 2019 were used. The results are expressed using measures of central tendency and dispersion. For the impact measurement, initially, the Shapiro Wilk normality test was performed, and the result was normal (p > 0.05) so the decision was made to apply the parametric test for comparison of related samples T-Student for related samples (paired T-test). The statistical significance was 5% (p < 0.05).

Regarding the performance of the first-year elementary students, no sub-skill exceeded the midpoint of the measurement scale on average, which indicates low overall performance in speaking, even though vocabulary was the highest scoring, while the lowest performance was grammar. In the post-test the average scores exceeded the midpoint of the scale, vocabulary was the highest, while the weakest was fluency.

The pre-test and post-test analysis revealed a significant increase in all areas of speaking following the application of pictograms.

With respect to overall performance, it was identified that in the pre-test the first-grade students had achieved 40.3% of the maximum score (M=8.1; SD=2.1), while in the post-test they reached 81.6% (M=16.3; SD=2.6). An improvement of 41.3% was identified in the performance of this group of children, and all children showed an improvement of at least one point. See table 1

		Pre-test			Post-test					
Sub Skill	Min	Max	Mean	SD	Min	Max	Mean	SD	t	р
Grammar /5	1	3	1,7	0,6	3	5	4,2	0,8	-21,02	<.001**
Vocabulary /5	1	3	2,4	0,6	4	5	4,4	0,5	-22,11	<.001**
Pronunciation /5	1	4	2,1	0,6	3	5	4,0	0,9	-9,31	<.001**
Fluency /5	1	4	1,9	0,7	3	5	3,7	0,7	-14,57	<.001**
Total /20	4,0	13,0	8,1	2,1	13,0	20,0	16,3	2,6	-23,67	<.001**

Table 1. First-grade speaking performance.

Note: Min= Minimum, Max= Maximum; SD= Standard deviation, **p < 0.01 (Statistical significance).

In the group of second-year GBS students, it was identified that in the pre-test all the subskills were below the midpoint of the scale; however, vocabulary was the best performing in this group of students. In the post-test, the scores ranged between three and five points, with average scores above the midpoint of the scale, the best-performing sub-skill was vocabulary and the lowest one was fluency, there were also significant differences between before and after the intervention, with significantly higher results in the post-test (p < 0.05).

In the pre-test, students reached 45.3% (M=9.1; SD= 2.9) of the maximum possible score and in the post-test 80.5% (M=16.1; SD= 3.1), an increase of 35% in this group of students was evidenced. All students scored at least one point in all sub-skills, except one student who obtained the same score as the pre-test in pronunciation.

Sub skill		Pre	-test			Pos	t-test		4	
Sub skill -	Min	Max	Mean	SD	Min	Max	Mean	SD	- t	р
Grammar /5	1	3	1,8	0,5	3	5	4,0	0,9	-12,90	<.001
Vocabulary /5	1	4	2,7	1,2	3	5	4,3	0,7	-10,51	<.001
Pronunciation /5	1	3	2,2	0,9	3	5	4,0	0,8	-10,93	<.001
Fluency /5	1	3	2,4	0,7	3	5	3,9	0,9	-13,58	<.001
Total /20	5,0	12,0	9,1	2,9	12,0	20,0	16,1	3,1	-27,51	<.001

Table 2. Second-grade speaking performance.

Note: Min= Minimum, Max= Maximum; SD= Standard deviation, **p < 0.01 (Statistical significance).

Finally, Table 3 shows the changes produced in each of the sub-skills as well as in total speaking. It was identified that first-grade students improved their performance between 1.8 and 2.5, while second-grade students improved their performance between 1.6 and 2.2 points Grammar represented the sub-skill with the greatest increase in performance. Also, the total speaking scale showed an increase of 8.3 points in first graders and 7.1 in second graders, which implies a significant positive impact.

Table 3. Changes produced with the implementation of pictograms.

Sub Skill	First grade	Second grade		
Grammar /5	2,5	2,2		
Vocabulary /5	2,1	1,6		
Pronunciation /5	1,9	1,8		
Fluency /5	1,8	1,6		
Total	8,3	7,1		

The results obtained with the information provided by the EFL teachers are shown in Table 4. The dimension of the highest number of teachers with a better knowledge of usage regarding pictograms (Mean 5; SD7.2) differs significantly from the others who have a third-level degree.

		Ν	%
A	25-35	5	56
Age	36-45	4	44
Uses pictograms during the teaching-learning	Yes	8	89
process	No	1	11
	Title	1	11
	Figure size	5	56
Important pictogram components (more than one answer is possible)	Key or legend	4	44
(more than one answer is possible)	Symbols	8	89
	Type of letter	2	22

Table 4. EFL teachers' profile and perceptions of the use of pictograms.

Qualitative results

On the other side, for the qualitative results content analysis was conducted. The topics that emerged from the analysis of the open-ended questions of the survey applied to the 9 elementary school English teachers.

Teachers' perceptions

Pictograms, comprehension, and motivation

When asking participants how the use of pictograms enhances comprehension and motivation, most of them mentioned that visuals play a crucial role in the internalization of content, being of great importance and support in teaching English to children, especially up to the age of 8 years. They also answered the presence of visual elements in the form of pictograms has a significant impact on learning, since children, in their developmental stage, learn visually. In addition, some of them also emphasize that the ability of students to relate pictograms to real situations and contextualize the topic contributes to a positive and significant influence. In this way, they agree that the visual approach facilitates the acquisition of vocabulary without the need for direct translation, thus effectively establishing the meaning of words.

T1: The visual channel is of great importance and support for the teaching of children, especially up to 8 years of age.

T2: The visual elements allow students to relate them to real situations and contextualize the topic.

In conclusion, visual elements play a crucial role in facilitating learning. This aligns with the natural inclination of children towards visual learning during their developmental stages. The presence of pictorial elements not only enhances the educational experience but also caters to the visual learning preferences inherent in the developmental processes of children.

Pictograms in the English teaching-learning process

The inclusion of pictograms in the English teaching-learning process might bring multiple benefits to the children. First of all, it could promote learning by arousing students' curiosity and allowing concrete associations of meaning and signifiers through self-interpretation. Also, some of the teachers emphasize that the ability to immediately recognize objects, places, or elements known in Spanish is essential for a more effective understanding of new vocabulary in English. In addition, it is mentioned that the positive visual component, such as children's inclination toward pictures, contributes to faster and more motivating learning. Overall, the strategic use of pictograms emerges as a valuable resource to optimize the process of teaching and learning English at the elementary school level, as it could be evidenced by the teachers' answers.

T3: It would have a positive and significant influence on the students' vocabulary acquisition without the need for direct translation and in turn, would help them to understand the meaning of the word.

T4: It allows immediate recognition of objects, places, or elements already known in Spanish, which will be more effective in understanding new vocabulary in English.

Head of the English department

Moreover, it is important to emphasize the different topics that emerge from the questionnaire completed by the three heads of the English department of the institution. The topics are divided into two themes that will be explained below.

Pictogram technique in English classes:

Regarding the current use of the pictogram technique in English classes, teachers have gained knowledge through classroom visits and as part of CELTA training. This technique has been observed in action during classes as it was mentioned by the head of the English department, confirming it as an innovative tool that contributes to effective teaching. Teachers recognize the benefits of this methodology, not only as a form of language immersion but also as an innovative tool that makes classes interesting and engaging for students. That was reported by some of the English teachers who are working at the school.

H1: It is a valuable technique for English vocabulary acquisition, benefiting language immersion.

H2: The use of pictograms can be evidenced during classroom visits and part of the CELTA training has provided information on the use of pictograms in English classes.

In short, the current use of the pictogram technique in English classes is influenced by teachers' exposure through classroom visits and CELTA training. Its effectiveness has been confirmed by the head of the English department, who highlighted its incorporation as an innovative tool for impactful teaching practices. Current teachers report acknowledging the benefits of the technique, recognizing its value in language immersion and as an innovative approach that enhances student interest and engagement.

Effects of pictogram training in English classrooms

Training on the use of pictograms in English classes is perceived as highly beneficial for teachers. This training is expected to produce positive effects, providing better support for students and eliminating techniques such as translation. In addition, it is recognized that teachers, by using the pictogram technique, would contribute significantly to the classroom, making it more effective and attractive. On the other hand, it is expected that students, especially those with visual learning styles, would benefit from associating pictures with words, thus improving their comprehension and acquisition of English vocabulary. The perception of both teachers and students towards the use of pictograms in the English class is positive, highlighting the usefulness and effectiveness of this educational technique.

H1: Providing training on the use of pictograms in English classes could have different effects on teachers, providing better support to students and avoiding techniques such as translation.

H3: Students certainly benefit from the technique, as it makes it easier for them to associate images with the words they are learning.

Discussion

The main purpose of this study was to investigate the influence of pictograms during the teaching and learning English process in Primary Education. The literature refers to several studies that reported the effects of the use of visual aids in the classroom. Firstly, Balkan Kiyici (2018), found that using visual aids such as pictures and videos can significantly enhance students' vocabulary acquisition. This study is consistent with the present findings since the results show that the average post-test scores surpassed the midpoint of the scale, with vocabulary being the most prominent factor, as it is also found that incorporating pictograms and simple words in the EFL classroom can significantly enhance students' understanding of the topic.

Yowaboot and Sukying (2022), demonstrated the effectiveness of new educational strategies, while Mendoza (2014), and Shabiralyani et al. (2015), supported the role of visual aids, including pictograms, in enhancing vocabulary acquisition. The findings of the present study correspond with these results, suggesting a substantial improvement in vocabulary acquisition, particularly in first-grade students. The quantitative results show improvement in all speaking areas, with vocabulary as the highest-scoring sub-skill.

Also, Zúñiga (2021), and Wei (2022), found that students were more likely to actively participate and be motivated when pictograms were used in English lessons. The study supports the importance of visual elements, such as pictograms, for comprehension and motivation in teaching, according to teachers' reports. Additionally, teachers emphasized that visuals are of great importance, especially for younger students, aligning with the idea that the visual appeal of pictograms stimulates interest and enthusiasm for language learning.

Similarly, studies carried out by Razally et al (2018), Roslina (2017), Perez (2017), and Guo et al. (2020), supported the positive effects of pictograms on reading comprehension skills which are evidenced in this study's findings. Quantitative results align with these findings, showing a significant increase in all areas of speaking, including reading comprehension while the qualitative results further emphasize the positive influence of pictograms on students' ability to understand the meaning of words and engage more actively in the reading process.

Finally, Adeniyi et al. (2022), Lamour (2015), and Tigse and Suntasig (2022), emphasized the role of pictograms in facilitating language production and oral communication skills. The findings of the current study are in line with these findings, as teachers reported that the use of pictograms contributes to the acquisition of vocabulary without the need for direct translation, fostering effective language production.

Conclusion

This study has given important insights into using pictograms for teaching English in primary schools. The study shows that using visual aids like pictures and simple words can make a big difference in how well students understand the subject which has been demonstrated by results showing an improvement in the children's vocabulary. The study found that primary EFL teachers have challenges in using visual elements for effective teaching. However, it could be said that students, teachers, and heads of the English department perceive pictograms as an effective and motivational tool to enhance vocabulary learning in young children since the comments received from the participants have been positive. Some limitations were found such as the number of participants or possible further research could be having a study with more participants and including more schools could provide a wide range of ideas and perceptions that could help to improve EFL education at the basic levels.

Moreover, this study contributes to the growing body of literature on the benefits of using visual aids in the EFL classroom. The findings have important implications for EFL teachers and training programs. They emphasize the need to improve teachers' skills in combining visuals and content to enhance EFL education.

References

- Adeniyi, K., Mafikuyomi, J.A., Mafikuyomi, O. D., & Chukwudiegwu, C.E. (2022). Effective Use of Pictograms in Early Childhood Care and Education: A Study of Selected Nursery Schools in Ojo Local Government Area of Lagos State, Nigeria. *British Journal of Teacher Education and Pedagogy*, 1(2), 52-57. https://www.doi.org/10.32996/bjtep.2022.1.2.6
- Balkan Kiyici, F. (2018). Primary School Students' Perceptions of Technology. *Malaysian Online Journal of Educational Technology*, 6(4), 53-66. http://www.dx.doi.org/10.17220/mojet.2018.04.005
- Campanella, T. (1993). Civitas Solis. English. Oxford Text Archive Core Collection.
- Clark, J.M., & Paivio, A. (1991). Dual coding theory and education. *Educational Psychology Review*, 3(3), 149–210. https://www.doi.org/10.1007/BF01320076
- Creswell, J.W. (2009). *Research Design: Qualitative, quantitative, and mixed methods approach.* (3rd ed.). Sage Publications.
- Elegbede S.D. (2015). Principles and Practices of Instructional Materials. Joytal Printing Press.
- Erickson, B.D (2007). Introduction to Early Childhood Education. Bellviews Communication Ltd.
- Filep, B. (2009). Interview and translation strategies: coping with multilingual settings and data. *Social Geography*, 4(1), 59-70. http://www.doi.10.5194/sg-4-59-2009
- Fraenkel, J.R., Wallen, N.E., & Hyun, H.H. (2012). *How to design and evaluate research in education.* McGraw-hill.
- Goldstein, B. (2016). Visual literacy in English language teaching: Part of the Cambridge Papers in *ELT series*. Cambridge University Press.
- Guo, D., Zhang, S., Wright, K.L., & McTigue, E.M. (2020). Do You Get the Picture? A Meta-Analysis of the Effect of Graphics on Reading Comprehension. AERAOpen, 6(1), 1-20. https:// www.doi.org/10.1177/2332858420901696
- Lamour, K. (2015). Using strategies from graphic design to improve teaching and learning. *Essentials of Teaching and Integrating Visual and Media Literacy: Visualizing Learning*, 1(1), 3-26. https://doi.org/10.1007/978-3-319-05837-5_1
- Lascano, D. (2019). *Pictogramas en el desarrollo de la destreza lectora del idioma inglés* [Tesis de pregrado, Universidad Central del Ecuador]. Repositorio Institucional http://www.dspace. uce.edu.ec/handle/25000/18559
- Malamed, C. (2015). *Visual design solutions: Principles and creative inspiration for learning professionals.* John Wiley & Sons.
- Mendoza, A. (2014). Pictograms and its influence on the English learning teaching of the first basic year "A" and "B" students in the" Republic of Mexico" middle school in Chone city during the second term, 2013-2014 [Tesis de pregrado, Universidad Laica Eloy Alfaro de Manabí]. Repositorio Institucional https://repositorio.uleam.edu.ec/handle/123456789/3820

Paivio, A. (2013). Imagery and verbal processes. Psychology Press.

- Razalli, A.R., Thomas, R.O., Mamat, N., & Yusuf, N. (2018). Using text with pictures in primary school to improve reading comprehension for hearing-impaired students. *Journal of IC-SAR*, 2(1), 19-27. http://www.doi.10.17977/um005v2i12018p019
- Roslina, R. (2017). The Effect of Picture Story Books on Students' Reading Comprehension. Advances in Language and Literary Studies, 8(2), 213-221. http://www.doi.10.7575/aiac.alls. v.8n.2p.213
- Shabiralyani, G., Hasan, K.S., Hamad, N., & Iqbal, N. (2015). Impact of visual aids in enhancing the learning process case research: District Dera Ghazi Khan. *Journal of education and practice*, 6(19), 226-233. https://www.eric.ed.gov/?id=EJ1079541
- Takasaki, T., & Mori, Y. (2007). Design and development of a pictogram communication system for children around the world. In *Intercultural Collaboration: First International Workshop, IWIC* 2007 Kyoto, Japan, January 25-26, 2007 Invited and Selected Papers (pp. 193-206). Springer Berlin Heidelberg. https://www.doi.org/10.1007/978-3-540-74000-1_15
- Tigse, J.A., & Suntasig, L.C. (2022). *Pictogramas en el fortalecimiento del lenguaje verbal* [Tesis de pregrado, Universidad Técnica de Cotopaxi (UTC)]. Repositorio Institucional http://repositorio.utc.edu.ec/handle/27000/9284
- Tomlinson, B., & Masuhara, H. (2017). *The complete guide to the theory and practice of materials development for language learning.* John Wiley & Sons.
- Wei, Y. (2022). Toward technology-based education and English as a foreign language motivation: A review of literature. *Frontiers in Psychology*, 13, 1-8. https://doi.org/10.3389/ fpsyg.2022.870540
- Zúñiga, J.P. (2021). Promoting the Pedagogical Use of Pictograms: A Case Study of Five In-Service Costa Rican English Teachers. *BELT-Brazilian English Language Teaching Journal*, 12(1), 1-16. http://www.dx.doi.org/10.15448/2178-3640.2021.1.41142

Author

Cristina Paola Pauzhi Coellar. Third-level degree as Bachelor of Science in Education in English Language and Literature. English teacher at Unidad Educativa BIlingue Interamericano. English teacher at Universidad Católica de Cuenca – Language Department.

Juanita Argudo-Serrano. Master's degree in English Language and Applied Lingüistics, and a Ph.D. in Education. She is an Associate Professor at the English teaching training program at Universidad de Cuenca and a teacher at the Master's program at Universidad Católica de Cuenca.

Statement

Conflict of interest

We have no conflicts of interest to disclose.

Funding

No financial assistance from parties outside this article.

Notes

This article is not the product of previous research.