



**Gamification in the development of reading fluency in fifth grade of basic education in Ecuador**

Gamificación en el desarrollo de la fluidez lectora en quinto grado de educación básica en Ecuador

Mérida Mercedes Pazmiño Cedeño<https://orcid.org/0009-0007-5465-1270> Universidad Laica Eloy Alfaro de Manabí, Ecuador.
Graduate researcher, Master's Degree in
Education: Pedagogical Innovations
merida.pazmino@pg.ulead.edu.ec
(correspondence)**Arturo Damián Rodríguez Zambrano**<https://orcid.org/0000-0002-7017-9443> University Professor, Faculty of Education, Tourism, Arts
and Humanities, Universidad Laica Eloy Alfaro de
Manabí, Ecuador**ABSTRACT**

Reading fluency is reading a text with precision, adequate speed, and accurate intonation. This work aims to increase reading fluency by employing practices that articulate gamification through online tools such as Cokitos and Wordwall, among others. Forty students from a middle school located in the Manta canton, Manabí, Ecuador, participated in the study. The paradigm adopted was constructivist, with a quasi-experimental approach. The instruments used were a pretest-post reading fluency observation form and an expert interview. The results include an educational intervention aimed at stimulating reading fluency and the changes achieved in the participants' reading speed. It is concluded that the online articulation of Cokitos and Wordwall in pedagogical sequences with gamification contributes to improvements in students' fluency, although to be significant, they may require improvements in the conditions of technological access and stability in institutional development.

Keywords: Basic Education, oral expression, reading fluency, gamification, speed reading, pedagogical innovation.

RESUMEN

La fluidez lectora es la habilidad de leer un texto con precisión, velocidad adecuada y entonación precisa. La finalidad del presente trabajo es incrementar la fluidez lectora mediante prácticas que articulan la gamificación, a través de herramientas como online Cokitos y Wordwall, entre otras. Participaron 40 estudiantes de un centro educación de educación de básica media localizado en el cantón Manta, Manabí, Ecuador. El paradigma adoptado fue el constructivista, con un enfoque cuasi experimental. Los instrumentos utilizados fueron ficha de observación pretest-postes de fluidez lectora y la entrevista a expertos. Los resultados incluyen una intervención educativa dirigida a la estimulación de la fluidez lectora y los cambios logrados en la velocidad de la lectura de los participantes. Se concluye que la articulación online Cokitos y Wordwall en secuencias pedagógicas con gamificación aportan mejoras a la fluidez en los estudiantes, aunque para ser significativos podrían requerir mejoras en las condiciones de acceso tecnológico y estabilidad en el desenvolvimiento institucional.

Palabras clave: Educación Básica, expresión oral, fluidez lectora, gamificación, lectura rápida, innovación pedagógica.

ARTICLE HISTORY**Received:** 2024-04-28**Revised Version:** 2024-05-15**Accepted:** 2024-06-30**Published:** 2024-07-07**Copyright:** © 2024 by the authors**License:** CC BY-NC-ND 4.0**Document type:** Article**ARTICLE INFORMATION****Main topic:**

Gamification and reading fluency

Main practical implications:

This article presents original empirical evidence, which can help decision makers, educational managers and policy makers to better understand the impact that gamification can have on the learning process of reading and comprehension skills.

INTRODUCTION

Reading is a fundamental activity for the development of the human being. It is precisely considered as the precursor of historical changes in human thought and development (Durango Herazo, 2017). In children, reading provides the ability to acquire cognitive and social development, especially in the first years of life. If taught properly, as it is an activity shared with teachers and parents, it can become a pleasurable and transformative habit, rather than a burden as some children currently believe (Rondón & Ramos, 2018).

States must ensure the right to free education, expanding the field of knowledge and providing quality education with warmth. In this sense, in Latin America, an effort can be observed on the part of the countries of the region to comply with the 2030 Agenda for Sustainable Development of the United Nations, which has as a priority the universalization of equitable and quality basic education (Hinostroza, 2017).

In Ecuador, there are 15,506 educational institutions with a total of 4,251,076 students, of which 3,054,003 are in general basic education, equivalent to 71.84%, according to the Open Data Catalog of the Ministry of Education of Ecuador (Ministerio de Educación, 2024). Basic education in the country begins between the ages of 4 and 6, and culminates in adolescence, being compulsory until the age of 15 (Hinostroza, 2017).

Since 2018, the Ministry of Education has promoted the project called "La Fiesta de la Lectura". This activity is carried out twice a year nationwide, with the aim of encouraging reading for pleasure. Thus, activities such as artistic presentations, singing, own stories, among (Andrade et al., 2023) are carried out.

In the Ecuadorian curriculum, the area of Language and Literature focuses on the teaching of language from the contributions of sociolinguistics, psycholinguistics, ethnography, pragmatics, discourse analysis, among others. In this sense, the study of language is understood from communicative contexts, focusing on the reading dimension, which includes decoding, phonological awareness, accuracy, fluency and prosody (Andrade et. al, 2023).

But despite the extensive efforts and the aforementioned macrostructure, documents such as the Regional Comparative and Explanatory Study of 2019 show that the reading results of fourth grade students are close to the regional average, while seventh grade students are below it. (UNESCO, 2021) Within this broad category, there is reading fluency, understood as the ability to read a text with accuracy, adequate speed and correct intonation progress (Calero, 2014). Students usually present difficulties in reading if they do not have practice and mastery of the words from their early school years as stated by Calero. This is observed in the transition grades where it is difficult to recognize syllables, phonemes, words and form sentences, because they go from reading phonemes indirect or sub-lexical reading to direct or lexical reading (Arancibia & Leiva, 2022).

The purpose of this work is to improve reading fluency through the use of gamification, with a quasi-experimental approach. This work is part of the Master's program in Education: Pedagogical Innovations of the Universidad Laica Eloy Alfaro de Manabí, Matriz, Cohort one.

Theoretical framework

Reading fluency.

Reading fluency is closely linked to text comprehension. If during the first steps in learning to read it is not possible to associate graphemes with phonemes, there may be difficulties in understanding the meaning of words, which in turn limits the overall comprehension of the text (Belluschi et al., 2017).

Reading quickly allows the reader to have more cognitive resources to comprehend what he/she reads, as supported by several studies. Moreover, reading fluency is not only reduced to the ability to associate graphemes and phonemes; it also implies the ability to move from sub-lexical to more direct or lexical reading (Arancidia & Leiva, 2022) Reading aloud, being a form of oral communication, contributes to the development of expressive skills and reflects the reader's emotions; prosody, in this sense, plays a crucial role in reading fluency (Alvarez et al., 2023).

There are several strategies that can improve reading fluency, among which are repeated reading, the development of phonological awareness and the practice of grapheme-phoneme decoding (Ferrada & Outón, 2017) However, it is important to keep in mind that speed in reading does not always guarantee adequate fluency; it is necessary to perform a continuous assessment that allows students to reflect on their own reading fluency, through self-assessment and mutual evaluation, so that they are able to monitor their progress (Calero, 2014).

Oral expression can be considered an underlying skill in both writing and reading, since it implies the ability to communicate effectively what has been read. As De la Hoz (2007) points out, it is necessary that just as we need to be calm to think, we need to read slowly if we wish to obtain a benefit.

To improve this skill in the classroom, various practical activities can be implemented, such as performing children's plays to learn to modulate the voice and express oneself appropriately, simulating buying and selling situations to practice verbal communication, learning songs as a playful way to acquire vocabulary and express oneself orally, working with riddles and tongue twisters to improve pronunciation and expand vocabulary, performing artistic or expressive imitation games to develop expressive skills, and promoting debates on interesting topics to foster oral expression and argumentation (Dobinson & Dockrell, 2021)

Oral expression is fundamental in the formation of students, and countries such as France, the United States and Scandinavian countries have given importance to public presentations and oral examinations as part of the educational process. Teachers should offer activities that promote the ability to speak in public, debate and defend ideas, recognizing the importance of this skill in the integral formation of students (Baralo, 2000).

In addition to oral expression, aspects such as volume, phrasing, smoothness and rhythm are also important for fluent and expressive reading. Volume refers to the intensity of the voice and the way words are articulated, while phrasing involves the ability to divide the text into syntactic units and read them with the appropriate intonation to convey their meaning. Smoothness relates to smoothness and uniformity in articulation, and rhythm refers to the perceptual sensation experienced when reading a text, especially in poetry, due to the regular combination and succession of syllables, accents and pauses (Beck & Konieczny, 2013).

Pedagogical innovation

Human activity constantly requires fostering changes that improve processes, interactions, optimize resources, produce new knowledge. Innovation is one of the highest levels of creativity; it integrates categories such as initiative, inventiveness, originality, willingness to change, risk acceptance, adaptive process, but above all collaboration and willingness to share values, projects, processes, joint actions and evaluative proposals (Nanda & Singh, 2009).

Educational innovation is multidisciplinary and occurs at the classroom, institutional and educational systems levels, where its main objective is to improve learning. Pedagogical innovation focuses on the different components of teaching that generate liberating, active and constructive processes, guiding pedagogical development to transform the teaching-learning process, based on an intentional and explicit reorganization linked to the teacher's task (Meléndez & Gómez, 2008).

Pedagogical innovation resides in the being of the teacher, bringing about new changes in his or her actions to improve and obtain better results in his or her educational practice. This leads him to go out of his comfort zone, look for options, strategies and apply possible educational innovations that allow his students to acquire knowledge in a more active and participative way. By being reflective and investigative, the teacher becomes a facilitator and the student becomes the protagonist of his or her learning process. Educational innovation is based on a culture of permanent reflection, based on didactics, psychology, pedagogy, and continuous research, allowing the acquisition of learning as demanded by the knowledge society (Blanco, 2017).

Innovation is characterized as an intentional and planned process, based on theory and reflection, aimed at transforming practices and achieving objectives, which implies its relationship with research and the assimilation of technology developed or transferred from other fields of activity (Macanquí et al., 2020).

Gamification

Gamification involves applying strategies, actions and thoughts typical of games in contexts that are not naturally playable, such as the classroom (García & Fuentes, 2022). Its purpose in education and training is to modify the behaviors of participants to make the educational experience more effective (Páez et al., 2023).

Establishing basic game bases, selecting necessary components, mechanics and dynamics, defining consistent aesthetics, ensuring motivation, clear instructions, inclusive team building and defining rewards are crucial elements in gamification in education. These elements contribute to improving student engagement, motivation and knowledge acquisition at various educational levels. Integrating gamification into educational processes can lead to better learning outcomes and increased student motivation. By using gamified resources such as Cokitos, wordwall.net, Quizizz, Educaplay and Genial.ly, educators can create innovative and engaging learning experiences for students in technology education. Overall, incorporating these fundamental elements of gamification can help create a stimulating and inclusive learning environment that fosters student engagement, motivation, and ultimately learning success (Paez et al., 2023).

On the other hand, through gamification, game strategies can be applied in order to induce certain behaviors in students. Therefore, the use of online educational games such as Cokitos and wordwall.net, among others, can contribute to improve reading fluency in each of the students. The questions that guide this research and allow its development are the following: Does gamification improve reading fluency?, Does reading fluency benefit from the use of technological tools?, Are the technological tools proposed adequate to improve reading fluency? Do the participants focus on reading fluency or on

the game?

From the perspective of neuropsychology, reading involves a process in the brain that begins with the visual stimulus, which is processed by the visual cortex, followed by lexical processing before the pronunciation of the word at the occipito-temporal junction, which takes place in the left hemisphere. This process involves mental operations such as attention, memory, sequencing, and logical processing (Bravo, 2018).

Gamification, which encompasses various facets of gamification such as interactivity, storytelling and problem solving, seeks to engage participants. Among its objectives are to activate motivation towards learning, provide constant feedback, foster more meaningful learning, increase engagement, connect the learner to the content, obtain measurable results and develop digital competencies, thus promoting learner autonomy. In the area of reading, it is essential to consider how to complement reading with other elements, especially for those who are not in the habit of reading. Although for regular readers gamification may seem unnecessary, for those who face difficulties with reading it can be a valuable tool to enrich the experience and understanding of texts. Ultimately, it is about living the activity of reading in a renewed and enriching way, beyond simply reading or playing to read (Rondón, 2018).

When gamification is applied to the field of reading, the need arises to consider how to complement the act of reading with other resources. It is important to keep in mind that an avid reader does not necessarily look for gamified elements in his or her favorite reading. However, there are situations in which reading has not become an ingrained habit, or its practice is problematic for a variety of reasons. Reading adds layers of depth to the story and the reading experience, suggesting that the activity goes beyond simply reading or reading to play; it is about living the experience in a different way (Marchello, 2006).

METHODOLOGY

The research is based on the constructivist paradigm, using a mixed research method. The research design is non-experimental and descriptive, which allows us to collect information directly from the students.

Participants

The study was conducted in a public school in Cantón Manta, Ecuador. Forty fifth grade students selected through non-probabilistic purposive sampling participated. This group was composed of an equal gender distribution, with 54% female and 46% male (see Table 1), all of them between 8 and 9 years of age. In addition, within this group, one child was included who presented special educational needs related to intellectual disability.

Instruments

For this study, a standardized questionnaire based on the Assessing reading fluency assessment guide developed by Rasinski (2004) was used. This instrument covers four main aspects: (1) expression and volume, (2) phrasing, (3) fluency, and (4) rhythm. The guide includes a rubric that evaluates these four levels, which are observed through 12 specific indicators. The administration of the questionnaire lasts 20 minutes and is carried out individually.

Table 1. Sample distribution by gender

Sex	fr.	%
Male	20	50%
Female	20	50%

Source: own elaboration with the research data

Both the application of the instrument and the intervention followed the ethical research regulations of the Universidad Laica Eloy Alfaro de Manabí (ULEAM, 2016), regarding privacy, reliability, respect for human rights and diversity. Given that the research participants are minors, informed consent was obtained from their legal representatives.

RESULTS AND DISCUSSION

In the initial evaluation, the following results were observed in each dimension:

In terms of expression and volume, 46.15% of the students, equivalent to 18 students, demonstrated natural language when reading most of the passage. Some 28.21%, which is 11 students, began to use their voice to give the text a natural tone in some parts, but not all. Their attention was focused on pronouncing the words, even reading quietly. 12.82%,

equivalent to 5 students, read with good expression and enthusiasm throughout the text, showing natural language and being able to vary expression and volume to suit their interpretation of the passage. Finally, 18.12% of the students, i.e., 5 in total, showed little expression or enthusiasm while reading. They pronounced the words as if they simply wanted to get rid of them and tended to read quietly.

As for Phrasing, 46.15% of the students, 18 in total, present a mixture of mid-sentence pauses for breathing. They pronounce some choppy words with reasonable accentuation and intonation. 25.64% pronounce two to three words, giving the impression of a choppy reading, with inadequate accent and intonation that do not mark the ends of sentences. 15.38%, that is 6 students, show good reading, especially in punctual units and sentences, with adequate attention to expression. 12.82% of the students, who are 5 in total, present a monotonous phrasing with little sense of sentence boundaries, performing frequent word-by-word reading.

Regarding Lisura (smoothness), 38.46% of the students, which are 15 in total, experience occasional interruptions in smoothness, caused by difficulties with words. 28.21% of the students, who are 11 in total, show several "rough spots" in the text where prolonged pauses, hesitations, etc., are more frequent and disturbing. 20.51%, which is 8 students, have a generally fluent reading with some interruptions, but difficulties with words and structures are quickly resolved, usually through self-correction. 12.82% of the students, or 5 students in total, have reading with frequent prolonged pauses, hesitations, false starts, probing, repetitions and/or multiple attempts.

As for Pace, 43.59% of the students, equivalent to 17 in total, show a consistent pace in their reading. 23.08%, which are 9 students, have a moderately slow pace. 17.95% of the students, which are 7 in total, show conversational reading in a coherent manner. 15.38% of the students, equivalent to 6 in total, show another type of rhythm.

The students have shown a greater mastery in competencies related to expression and speed, as well as in phrasing. Among them, 18 have stood out for their ability to read with an almost natural language in terms of expression and speed, while in phrasing they show a quite adequate intonation. However, the skills in which they have had more difficulties are rhythm and smoothness in reading. Interruptions are present when facing difficult words, resulting in a moderate and slow rhythm. These observations are confirmed by one of the tests applied, where a student was asked to read a selected paragraph.

After conducting the pretest and observing the weaknesses in the students' reading fluency, such as spelling errors, syllabication, reading in a low voice, choppy sentences and lack of accurate endings, the need arose to seek strategies to improve these skills. It was decided to intervene through gamification, using the Cokitos platform as a tool. Students were provided with the link to access games such as alphabet soup, where they had to search for names of animals, continents, fruits, trades and sports, as well as anagrams and cryptograms in Wordwall.net.

The application of these tactics motivated the students, spurring them to continue progressing in their education. Some students who had previously stayed on the sidelines now showed a genuine interest in participating. On certain occasions, classes were conducted virtually, where activities were presented and students completed them from their mobile devices. However, since not everyone had a cell phone in class, teams were organized to work together. For example, in the case of Wordwall.net, students read a text beforehand and then answered questions related to the topic. The team leader monitored the time it took them to answer and recorded their progress, promoting healthy competition among them.

Although the difficulty arose when some students learned the location of the answers within the group, the objective of improving students' reading fluency was achieved. This is reflected in the results of the posttest applied at the end of the intervention. Regarding expression and volume, 40% of the students, equivalent to 16, read with good expression and enthusiasm throughout the text. This sounds more natural. In the pretest, only five students showed little expression or enthusiasm when reading, but this number decreased to three after the intervention.

Similarly, in phrasing, 11 students managed to improve their ability to read sentences with adequate attention, especially in clause and sentence units. Regarding fluency, 14 students improved their reading with some interruptions, but difficulties with words and structures were quickly resolved by self-correction. Regarding rhythm, 14 students showed fluent reading, making listening to them pleasant and enjoyable.

Improvements in reading fluency were observed in all dimensions, although there is still room for improvement in a small group of students. However, the intervention succeeded in awakening in them a genuine interest, love for learning and desire to read more.

Table 2 shows the statistical discrepancies between pretest and posttest, both in the individual dimensions and in the overall evaluation of the interventions. Although the posttest mean did not exceed the upper limit, suggesting gains, these did not reach statistical significance. It is presumed that several factors could explain this.

Table 2. Pretest - posttest differences by dimensions and in the intervention

	Expression and volume	Phrasing	Smoothness	Pace	Intervention
Value	2.06	2.06	2.06	2	2.06
Media_pretest	2.59	2.63	2.67	2.64	10.28
Media_posttest	3.10	2.95	3.00	2.98	12.03
Average_difference	0.51	0.32	0.33	0.33	1.75
Standard_deviation	1.03	1.03	1.02	1.02	1
Lower_limit	0.89	0.93	0.96	0.93	8.31
Upper_limit	4.29	4.34	4.38	4.35	12.24

Source: own elaboration with the research data

One of the reasons may be attributed to the technological limitations present during the study. These limitations could have influenced the effectiveness of the interventions designed to improve reading fluency in the fifth grade. In addition, it is important to highlight the incidence of institutional instability during the data collection period.

During the course of the study, there were periods of face-to-face classes interspersed with unexpected periods of virtuality. Such sudden changes in the educational environment could have created additional challenges for students and potentially influenced reading fluency test results.

Discussion

The findings of this study support the position of Reyes et al. (2023), who argues that gamification involves implementing strategies for participants to adopt certain behaviors. In this research, by using Cokitos and Wordwall.net online educational games, it was observed that participants were more alert, active and participative in the activities presented, confirming the findings of the authors (Hernández et al., 2022).

Students sought to complete each game activity in the shortest time possible, aspiring to be the fastest, while performing the activities in complete silence and collaborating with their peers to move forward together.

By using online educational games such as Cokitos and Wordwall.net, students are engaged in completing activities quickly to demonstrate competence as they have observed (Hernandez et al., 2022). These games foster a collaborative environment where students work silently but cooperatively with their peers to progress collectively (Lestari et al., 2022). The use of Wordwall specifically enhances the learning process by making it enjoyable and effective, leading to increased student motivation and understanding. Additionally, the incorporation of educational games such as Word Wall in teaching reading comprehension and other complex subjects has shown positive results, with high levels of student interest and engagement, ultimately improving learning outcomes (Bilova, 2023).

When Arancidia & Leiva (2022) talk about fluent reading, they refer to the fact that it involves more than simply converting graphemes into phonemes and it is shown that students, when applying the games, must observe and analyze everything involved in the game in order to achieve the objectives and complete the activities. In addition, they must master reading speed without hesitation or pauses, resulting in fluent reading and better comprehension of the text. This is evidenced when, after applying the strategies with the mentioned platforms, students make efforts to decode and express words with greater speed and accuracy, which is reflected in better results in the post-test.

It is important to highlight the improvement of the participants with the greatest lag in reading fluency, showing interest and desire to continue with the activity in order to achieve better results in their learning process. Although perhaps they did not reach 100% improvement, their effort and dedication were evident. Efforts to improve reading fluency, especially for participants with initial challenges, are crucial to improving learning outcomes. Research indicates that interventions such as the repeated reading approach can significantly increase reading fluency (Ozernov et al, 2023). A difficulty that arose during the implementation of the strategy and that could affect the results was that not all participants had access to electronic and technological devices, which limited their participation in the activities proposed in the program with the use of the mentioned platforms. This condition shows to be a constant in several environments at the national level, but it is also evident in other spaces in Latin America, such as the one referenced by (Canet et al., 2013) in which connectivity resources were also lacking.

For future research, it is important to address these difficulties and provide more implementation time to avoid limitations in the participants and improve the results of the study. The authors hope that these results will contribute to the improvement of the quality of education in Manta, Manabí, Ecuador.

CONCLUSIONS

The researchers have confirmed that they have achieved the objectives set for this study, which were to improve reading fluency through the use of gamification, although it has been stated that they were not statistically significant. The integration of gamification through the Coquitos platform and Wordwallnet has been shown to increase reading fluency among students, as reflected by the results in the subsequent reading fluency test.

Those who experienced greater improvements in reading speed and agility, as well as in rhythm and smoothness, showed significant progress in their reading fluency. Significant improvements in attitude towards reading practices were also incorporated. However, the limitation of access to technology, due to restrictions on the use of cell phones in educational institutions for age reasons, is identified as a weakness of this study. Therefore, a call is made to the scientific community to carry out further research to deepen and broaden knowledge in this field.

Although progress can be noted in the development of reading fluency in the fifth grade of basic education, it does not reach statistical significance. This fact possibly suggests that the time dedicated to the interventions has been insufficient. It is essential to keep in mind that the course in question has a high number of students who faced serious reading difficulties from the beginning. Therefore, their improvements have been more limited. In future interventions, it would be pertinent to distinguish between the progress of typical students and those with specific educational needs. This would allow designing more effective and personalized strategies for each group.

It is important to recommend to authorities and educators the implementation of these tools for a significant improvement in the learning and overall performance of learners, as well as to urge public policy makers to improve educational conditions.

REFERENCES

- Alvarez, F. F. M., Ube Ronquillo, C. L., Rodríguez Reyes, M. G., Ube Ronquillo, F. E., & Alvarez Felix., C. L. (2023). Estrategias para desarrollar la fluidez lectora en estudiantes de educación básica, en el periodo 2017-2022. *Ciencia Latina Revista Científica Multidisciplinar*, 7(1), 2383–2400. https://doi.org/10.37811/cl_rcm.v7i1.4597
- Andrade, J. L., Vallejo, C. F., & Lechón. (2023). Políticas educativas para la enseñanza del inglés en la educación superior de Ecuador. *Cuestiones Políticas*, 41(77). <https://openurl.ebsco.com/EPDB%3Agcd%3A13%3A20671341/detailv2?sid=ebsco%3Aplink%3Ascholar&id=ebsco%3Agcd%3A164391527&crl=c>
- Armijos, A., Paucar, C., & Quintero, J. A. (2023). Estrategias para la comprensión lectora: Una revisión de estudios en Latinoamérica. *Revista Andina de Educación*, 6(2). <http://scielo.senescyt.gob.ec/pdf/rae/v6n2/2631-2816-rae-6-02-e205.pdf>
- Arancibia-, B., & Leiva, F. (2022). Fluidez lectora, reconocimiento de palabras y velocidad lectora en escolares de 3° y 4° año de enseñanza básica. *Literatura y lingüística*, (46), 367-388. https://www.scielo.cl/scielo.php?script=sci_arttext&pid=S0716-58112022000200367
- Baralo, M. (2000). El desarrollo de la expresión oral en el aula de ELE. *Carabela*, 47, 5-36. <https://mexico.unir.net/noticias/educacion/actividades-expresion-oral/>
- Beck, J., & Konieczny, L. (2023). What a difference a syllable makes—Rhythmic reading of poetry. *Frontiers in Psychology*, 14, 1043651. <https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2023.1043651/full>
- Beleño-Bassa, D. (2021). Fortalecimiento de la Comprensión Lectora Mediante Herramientas de Gamificación en Estudiantes de Primer Grado de Básica Primaria. <https://repositorio.udes.edu.co/entities/publication/665a482b-26c2-4fd6-8eec-2d45bb85e3a4>
- Belluschi, J. C. F., Barreyro, J. P., & Jaichenco, V. (2017). Niveles de fluidez lectora y comprensión de textos. Traslaciones: *Revista Latinoamericana de Lectura y Escritura*, 4(8), 163-186. <https://revistas.uncu.edu.ar/ojs/index.php/traslaciones/article/view/1063>
- Bilova, A. (2023). Implementing enjoyable learning strategy with wordwall in the efl classroom. *Anglistics and Americanistics*, (20), 58-64. <https://anglistika.dp.ua/index.php/AA/article/view/314>
- Blanco, C. E. (2017). El artículo de investigación en orientaciones para autores de revistas colombianas de educación. *Revista de Investigación*, 41(92), 115-140. https://ve.scielo.org/scielo.php?pid=S101029142017000300007&script=sci_abstract
- Bravo, C. (2018). Estrategias lúdicas para mejorar la comprensión lectora desde el enfoque de la neurociencia, para quinto año de educación primaria comunitaria vocacional en la unidad educativa Santa Rosa La Florida A de la zona sur de la ciudad de La Paz. *Fides et Ratio-Revista de Difusión cultural y científica de la Universidad La Salle en Bolivia*, 15(15), 29-45. http://www.scielo.org.bo/scielo.php?pid=S2071081X2018000100004&script=sci_abstract
- Calero, A. (2014). Fluidez lectora y evaluación formativa. *Investigaciones sobre lectura*, (1), 33-49. <https://www.redalyc.org/pdf/4462/446243919002.pdf>
- Canet-Vélez, O., Solis-Navarro, L., Sitjà-Rabert, M., Pérez, L. M., Roca, J., Soto-Bagaria, L., ... & Inzitari, M. (2023). Experience, facilitators, and barriers to the implementation of a multicomponent programme in older people living in the community, + AGIL Barcelona: A qualitative study. *Frontiers in Public Health*, 11, 1161883. <https://www.frontiersin.org/articles/10.3389/fpubh.2023.1161883/full>
- De la Hoz, C. (2007). La expresión lectora. In Las destrezas orales en la enseñanza del español L2-LE. En: *XVII Congreso Internacional de la Asociación del Español como lengua extranjera (ASELE). Logroño*, (pp. 623-632). Universidad de La Rioja. https://cvc.cervantes.es/ensenanza/biblioteca_ele/asele/pdf/17/17_0623.pdf
- Dobinson, K. L., & Dockrell, J. E. (2021). Universal strategies for the improvement of expressive language skills in the primary classroom: A systematic review. *First Language*, 41(5), 527-554. <https://journals.sagepub.com/doi/full/10.1177/0142723721989471>

Ferrada, N., & Outón, P. (2017). Estrategias para mejorar la fluidez lectora en estudiantes de educación primaria: una revisión. *Investigación en la Escuela*, 92, 46-59. <https://revistascientificas.us.es/index.php/IE/article/view/6716>

García, A., & Fuentes Agustí, M. (2022). Martínez, A. G., & Agustí, M. F. (2022). Paradigmas gamificados publicados en edublogs para la etapas de Educación Secundaria, Ciclos Formativos y Bachillerato. *Innoeduca. International Journal of Technology and Educational Innovation*, 8(1), 17-30. <https://revistas.uma.es/index.php/innoeduca/article/view/10299>

Harries, S., & Harries, S. (2012). Innovation and change: Ideas, networks and communities. *Records Management and Knowledge Mobilisation*, 115-141. https://www.researchgate.net/publication/300958556_Innovation_and_change_ideas_networks_and_communities

Hernández, L., Hernández, V., Neyra, F., & Carrillo, J. (2022). The use of Massive Online Games in game-based learning activities. *Revista Innova Educación*, 4(3), 7-30. https://alicia.concytec.gob.pe/vufind/Record/REVIE_eac60e58c6a4aaf50c0eae84b596e411

Hinostroza, E. (2017). TIC, educación y desarrollo social en América Latina y el Caribe. *Unesco*: <https://unesdoc.unesco.org/ark:/48223/pf0000262862>

Lestari, K. I., Arcana, I. N., Susetyo, A. E., & Kuncoro, K. S. (2022). Development of Online Learning Quiz and Educational Game Using Word Walls in Mathematics for Grade 10. <https://ejournal.uinsaizu.ac.id/index.php/insania/article/view/6924>

Macanchí, M., Orozco, B., & Campoverde, M. (2020). Innovación educativa, pedagógica y didáctica. Concepciones para la práctica en la educación superior. *Revista Universidad y Sociedad*, 12(1), 396-403. <http://scielo.sld.cu/pdf/rus/v12n1/2218-3620-rus-12-01-396.pdf>

Marchello, C. (2006). *Grammaticalisation et changement linguistique* (p. 304). De Boeck-Duculot. <https://iris.unitn.it/handle/11572/36402>

Meléndez, S., & Gómez, L. J. (2008). La planificación curricular en el aula. Un modelo de enseñanza por competencias. *Laurus*, 14(26), 367-392. <https://educacion.gob.ec/wp-content/uploads/downloads/2015/04/Proyectos-de-innovacion-pedagogica.pdf>

Ministerio de Educación. (2024). Datos abiertos de Educación. Ministerio de Educación. <https://educacion.gob.ec/datos-abiertos/>

Miranda, L., Maldonado, D., & Morán, G. (2021). Política educativa para el fomento de la lectura "Juntos Leemos.". <https://educacion.gob.ec/juntos-leemos/#:~:text=La%20Pol%C3%ADtica%20educativa%20para%20el,ser%20garantizado%20por%20el%20Estado.>

Nanda, T., & Singh, T. P. (2009). Determinants of creativity and innovation in the workplace: a comprehensive review. *International Journal of Technology, Policy and Management*, 9(1), 84-106. <https://doi.org/10.1504/IJTPM.2009.022845>

Ozernov-Palchik, O., Sury, D., Turesky, T. K., Yu, X., & Gaab, N. (2023). Longitudinal changes in brain activation underlying reading fluency. *Human Brain Mapping*, 44(1), 18-34. <https://onlinelibrary.wiley.com/doi/abs/10.1002/hbm.26048>

Páez, C., Arroba, E., Espinosa, M. T., & Silva, M. P. (2023, May). Gamification as collaborative learning resources in technological education. In *2023 IEEE Global Engineering Education Conference (EDUCON)* (pp. 1-5). IEEE. <https://ieeexplore.ieee.org/abstract/document/10125264>

Rasinski, T. V. (2004). Assessing reading fluency. *Pacific Resources for Education and Learning (PREL)*. <https://files.eric.ed.gov/fulltext/ED483166.pdf>

Reyes, J. P., Delgado, J. R., Vivanco, C. I., Morocho, L. A., & Torres, A. O. (2023). Gamificación como estrategia didáctica en el rendimiento académico de ecuaciones de primer grado con una incógnita. *Ciencia Latina Revista Científica Multidisciplinar*, 7(1), 9497-9515. https://doi.org/10.37811/cl_rcm.v7i1.5074

Rondón, N., & Ramos, E. (2018). Influencia de la gamificación para fomentar el hábito de lectura en los niños. *Revista Tecnología Educativa*, 3(2). <https://tecedu.uho.edu.cu/index.php/tecedu/article/view/97/67>

ULEAM. (2016). Código de ética de la Universidad Laica "Eloy Alfaro de Manabí". *Órgano Colegiado Superior – Uleam*. <https://www.uleam.edu.ec/wp-content/uploads/2017/01/ULEAM003-%20CODIGO%20DE%20ETICA.pdf>

UNESCO. (2021). Estudio Regional Comparativo y explicativo (ERCE 2019) Reporte nacional de Resultados Costa Rica. <https://www.unesco.org/es/articles/estudio-regional-comparativo-y-explicativo-erce-2019>

Zepeda, M., Cardoso, E., & Cortes Ruiz, J. (2021). La expresión oral y escrita en los estudiantes de nivel medio superior mediante el flipped classroom. *RIDE. Revista Iberoamericana para la Investigación y el Desarrollo Educativo*, 12(23) https://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S2007-74672021000200131

Contribution of each author to the manuscript:

Task	% of contribution of each author	
	A1	A2
A. theoretical and conceptual foundations and problematization:	50%	50%
B. data research and statistical analysis:	50%	50%
C. elaboration of figures and tables:	50%	50%
D. drafting, reviewing and writing of the text:	50%	50%
E. selection of bibliographical references	50%	50%
F. Other (please indicate)	-	-

Indication of conflict of interest:

There is no conflict of interest

Source of funding

There is no source of funding

Acknowledgments

There is no acknowledgments