INTERNATIONAL JOURNAL
TECHNOLOGICAL-EDUCATIONAL DOCENTES 2.0
ISSN: 2665-0266 | ISNI: 0000 0005 0409 1664 | RINGGOLD: 608948 | ROR: 037JQRK16
VOL. 18 (2), NOV 2025 | https://doi.org/10.37843/rted.v18i2.709

TEJD Resilience Paradigmatic

Enhancing Grammatical Awareness with a Game-based Response System during Emergency Remote Teaching

Uso de un Sistema de Respuestas Basado en el Juego para Favorecer la Conciencia Gramatical en la Enseñanza Remota de Emergencia

Angie Quintanilla-Espinoza[1], Laura Ferreira-Gómez[2] y Ricardo Vera[3]

EDITION TEJD Resilience Paradigmatic

Received: 15/mayo/2025
Accepted: 2/octubre/2025
Published: 29/noviembre/2025

Pages: desde 261-271

Country
[1]Chile
[2]Chile
[3]Chile

Institution
[1]Universidad de Concepción
[2]Universidad de Concepción
[3]Universidad de Concepción

Email
[1]anquinta@udec.cl
[2]laferreira@udec.cl
[3]rivera@udec.cl

ORCID
[1]https://orcid.org/0000-0002-1027-0579
[2]https://orcid.org/0009-0009-9610-275X
[3]https://orcid.org/0009-0007-3399-619X

Quote like this: APA / IEEE

Quintanilla-Espinoza, A., Ferreira-Gómez, L. & Vera, R. (2025). Enhancing Grammatical Awareness with a Game-based Response System during Emergency Remote Teaching. *Revista Tecnológica-Educativa Docentes 2.0*, 18(2), 261-271. https://doi.org/10.37843/rted.v18i2.709

A. Quintanilla-Espinoza, L. Ferreira-Gómez y R. Vera, "Enhancing Grammatical Awareness with a Game-based Response System during Emergency Remote Teaching", RTED, vol. 18, n.°2, pp. 261-271, nov. 2025.

Abstract

The COVID-19 pandemic forced a shift from face-to-face instruction to Emergency Remote Teaching (ERT), highlighting the need for innovative strategies to maintain student engagement and support learning outcomes. The objective of this research was to explore the implementation of a game-based student response system (GSRS), Kahoot!, as an educational innovation to enhance grammatical awareness and engagement among first-year university students in an English teaching program in Chile. An investigation was conducted within the pragmatic paradigm, employing an inductive-deductive method, a mixed approach, and a sequential explanatory design, with convergent triangulation and a transversal cut. Data were gathered through quantitative measures from pre- and post-tests, as well as a Likert-type perception survey, and qualitative data from open-ended student responses. Thirty-five participants completed 14 weeks of grammar-focused Kahoot! Activities are delivered synchronously and asynchronously. Statistical analysis using the Wilcoxon signed-rank test revealed a significant improvement in post-test scores ($p < 0.001$), suggesting that the intervention positively influenced grammar performance. Perception data indicated that students found Kahoot! Enjoyable, motivating, and helpful in consolidating content and providing immediate feedback. Qualitative findings supported these results, with students reporting increased participation, reduced monotony, and enhanced focus. However, concerns about competitiveness, anxiety, and internet access were also noted. Despite these challenges, the results confirm the pedagogical potential of GSRSs, such as Kahoot! In online environments, especially in contexts where motivation and interaction are compromised. The study concludes that game-based learning tools can effectively promote grammatical competence and engagement in ERT contexts and encourages further research into their long-term impact and adaptability to diverse settings.

Palabras clave: Enseñanza remota de emergencia, conciencia gramatical, gamificación, Kahoot!, participación estudiantil.

Resumen

La pandemia del COVID-19 obligó a una transición desde la enseñanza presencial hacia la Enseñanza Remota de Emergencia (ERE), lo que evidenció la necesidad de estrategias innovadoras para mantener la motivación estudiantil y apoyar los aprendizajes. El objetivo de esta investigación fue explorar la implementación de un sistema de respuesta estudiantil basado en el juego Kahoot!, como una innovación educativa para promover la conciencia gramatical y la participación en estudiantes de primer año de una carrera de Pedagogía en inglés en Chile. El estudio se enmarcó en el paradigma pragmático, bajo el método inductivo-deductivo, con un enfoque mixto, diseño explicativo secuencial, triangulación convergente y corte transversal. Se recopilaron datos cuantitativos a través de pruebas diagnósticas (pre y post-test) y una encuesta de percepción tipo Likert, con datos cualitativos (preguntas abiertas). 35 participantes completaron 14 semanas de actividades gramaticales en Kahoot!, en modalidad sincrónica y asincrónica. El análisis estadístico reveló una mejora significativa en los puntajes del post-test ($p < 0.001$), lo que sugiere un impacto positivo en el aprendizaje gramatical. Los resultados de la percepción muestran que los estudiantes encontraron Kahoot! entretenido, motivador y útil para consolidar contenidos y recibir retroalimentación inmediata. Los hallazgos cualitativos coinciden, destacando una mayor participación, disminución de la monotonía y mayor concentración. No obstante, se reportaron desafíos asociados a la competitividad, ansiedad y acceso a internet. A pesar de estas dificultades, se concluye que Kahoot! Tiene un alto potencial pedagógico en contextos virtuales, promoviendo la conciencia gramatical y el compromiso estudiantil en escenarios de ERE.

Keywords: Enseñanza remota de emergencia, conciencia gramatical, gamificación, Kahoot!, participación estudiantil.

D.L:LA2017000128 | ISSN: 2665-0266 | Ringgold ID:608948
ISNI: 0000 0005 0409 1664 | ROR: 037jqrk16
Nov 2025 - Volume 18, Number 2 , Issue No. 41.

Introduction

The COVID-19 pandemic forced a rapid shift from face-to-face instruction to Emergency Remote Teaching (ERT), highlighting the need for innovative strategies to maintain student engagement and support learning outcomes. During the COVID-19 pandemic, the global population was affected in multiple ways aside from health concerns. Education was deeply affected when mitigation policies adopted worldwide involved the closure of educational facilities (Oyetodun, 2020). Ultimately, this meant that traditional classroom-based scenarios were no longer possible. Thus, a rapid transition to online education was needed to face this new reality (Pasion et al., 2021). While attendance in face-to-face classes was positively associated with academic performance, the same could not be said about the new scenario involving emergency remote teaching (ERT).

Although distance learning was not new before ERT, many classroom-based institutions lacked familiarity with available tools and methodologies (Wieland & Kollias, 2020; Qutishat et al., 2022). This lack of preparedness led to several challenges, including reduced social interaction, low student commitment, and increased distraction. Inadequate or non-adapted teaching materials often resulted in monotonous and unengaging lessons. Moreover, applying traditional assessment methods proved difficult, highlighting the need for more authentic alternatives (Oyetodun, 2020). Students also faced barriers such as poor internet connectivity, limited access to technology, and unsuitable study environments (Qutishat et al., 2022). These issues significantly impacted the learning experience during ERT. However, this scenario also uncovered areas for pedagogical improvement and encouraged reflection on how to better support learning in digital contexts.

In addition to the challenges posed by the pandemic and ERT, it is crucial to consider the complexity of what is being taught. Grammar, often perceived as abstract or monotonous, is particularly difficult to learn (Masruroh, 2019; Zarzycka-Piscorz, 2021). In Chile, studies show that undergraduate students already struggle with academic demands, which were exacerbated by ERT (Oportus et al., 2024). These circumstances highlighted the need for effective strategies to support students in virtual learning environments. One promising solution is **gamification**, which incorporates game elements into educational settings to enhance engagement, motivation, and persistence (Veljković, 2017; Llerena & Rodríguez, 2017; Huriyah, 2022; Tandiono, 2024). Gamified activities can make learning more enjoyable and interactive, addressing both motivational and pedagogical challenges (Moreira et al., 2025).

Building on this perspective, Zarzycka-Piscorz (2021) further argues that gamification can foster **intrinsic motivation, as** it fulfills key psychological needs: competence, autonomy, and relatedness, outlined in Self-Determination Theory (Deci & Ryan, 2000). Complementing these findings, recent research by Ojeda-Lara and Zaldívar-Acosta (2023) highlights that gamification in higher education not only boosts student motivation but also supports the development of soft skills such as cooperation, communication, and creativity, reinforcing its pedagogical potential in university settings.

The objective of this research is to explore the implementation of a game-based student response system (GSRS), Kahoot! As an educational innovation to enhance grammatical awareness and engagement among first-year university students in an English teaching program in Chile. Therefore, this study seeks to answer the following question: How does the use of Kahoot impact grammatical awareness and engagement in a first-year English teaching program?

Methodology

To address the research objective and question, the study was conducted within the pragmatic paradigm, which supports the use of mixed methods to address complex educational problems. Pragmatism focuses on practical outcomes and combines quantitative and qualitative approaches to provide a more comprehensive understanding of the research problem (Creswell & Creswell, 2023). This study also adopted an inductive–deductive method, which involves a twofold reasoning process: first, inductively generating insights from observed data (e.g., student perceptions), and

second, deductively testing these insights against theoretical frameworks and expected outcomes (Creswell & Creswell, 2023). The inductive phase allowed for the emergence of themes from open-ended responses, while the deductive component assessed the impact of the intervention through pre- and post-test comparisons.

In line with this, a mixed-method approach was used, involving both quantitative and qualitative data (Creswell & Creswell, 2023). This study followed a sequential explanatory design, where quantitative data (pre- and post-tests, and survey percentages) were collected and analyzed first, followed by qualitative data (open-ended responses) to help interpret and expand on the initial results (Creswell & Plano Clark, 2017). The qualitative phase consisted of a content analysis of students' opinions regarding the implemented educational innovation.

This study used a convergent triangulation design, which involves collecting and analyzing quantitative and qualitative data simultaneously, then comparing and integrating the results to obtain a comprehensive understanding of the research problem (Creswell & Plano Clark, 2017). This design allowed the study to validate and enrich the quantitative findings through qualitative insights from students' perceptions. Additionally, the study employed a transversal cut, as data were collected at a single point in time during one academic term. This approach focuses on describing and analyzing a phenomenon in a specific moment without observing changes over time (Hernández et al. 2014), allowing the evaluation of the immediate effects of the intervention.

The population consisted of 50 native Spanish-speaking first-year undergraduate students enrolled in an English teaching program at a Chilean university. A total of 35 students voluntarily participated in the study. The sampling method was convenience sampling, which involves selecting participants who are readily accessible and meet the inclusion criteria (Hernández et al., 2014). This non-probabilistic approach was appropriate given the classroom-based context and the voluntary nature of student participation. Although the sample size was relatively small, it was suitable for the mixed-methods design and allowed for both statistical analysis and in-depth qualitative interpretation (Creswell & Creswell, 2023).

The technique used for data collection in this study was a combination of structured instruments designed to capture both quantitative and qualitative information. As Hernández, Fernández, and Baptista (2014) explain, data collection techniques refer to the procedures or instruments used to systematically gather information relevant to the research objectives. This combination of techniques allowed for triangulation of data, contributing to the validity and richness of the findings. In turn, two instruments were selected to ensure consistency with the study objectives and to allow for both measurable outcomes and rich descriptive insights (Creswell & Creswell, 2023). The instruments used are described below:

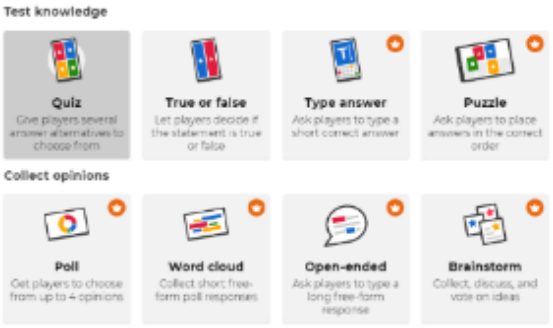
a. Pre- and Post-Test: This test evaluates the content covered during the study, aiming to measure the effectiveness of the implementation of educational innovation. The pre- and post-test consists of 40 multiple-choice questions taken from the diagnostic test of the textbook used in the course (English File Intermediate- fourth edition).
b. Perception Survey: This survey seeks to understand students' attitudes toward the implementation of educational innovation. It includes two sections: (a) 18 Likert-type scale questions ranging from "strongly disagree" to "strongly agree" and (b) 3 open-ended questions.

The educational innovation proposed in this project was the implementation of a game-based classroom response system in the context of virtual learning using Kahoot! platform. Figure 1 illustrates the types of activities available on Kahoot. On this platform, the teacher creates games that can include images and/or sound, which can be projected in the virtual classroom during synchronous sessions and/or assigned for autonomous student work or self-paced learning (Figure 2).

Quintanilla-Espinoza, A., Ferreira-Gómez, L. & Vera, R. (2025). Enhancing Grammatical Awareness with a Game-based Response System during Emergency Remote Teaching. *Revista Tecnológica-Educativa Docentes 2.0*, 18(2), 261-271. https://doi.org/10.37843/rted.v18i2.709

Figure 1

Activities in Kahoot.



Note. Different activities in Kahoot platform, own elaboration (2025).

Figure 2

Kahoot Options.

Note. Different options to play Kahoot, own elaboration (2025).

To use the game during a virtual session, Kahoot generates a code (Figure 3) that students must use to access the system (https://kahoot.it/) from their computer or mobile device. Additionally, students are required to create a username (Figure 4). On the other hand, if the teacher assigns autonomous work to the student, Kahoot generates a link that can be shared through different platforms, directing the student straight to the game (Figure 5).

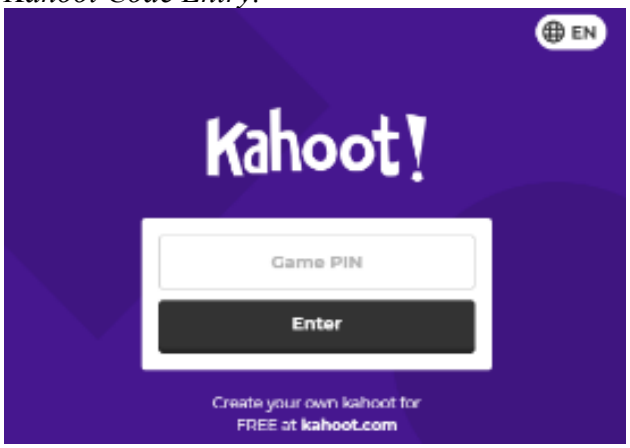
Figure 3

Kahoot Code.

Note. Getting Kahoot code, own elaboration (2025).

Figure 4

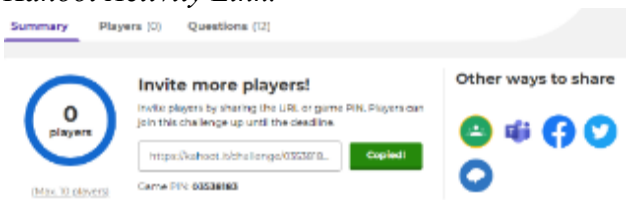
Kahoot Code Entry.



Note. Inserting Kahoot game pin, own elaboration (2025).

Figure 5

Kahoot Activity Link.



Note. Kahoot activity link for autonomous work, own elaboration (2025).

In any of these modes, the system provides individual feedback to students, allowing them to automatically identify their areas of weakness. This serves as a powerful tool for both self-assessment and peer assessment. Additionally, Kahoot provides the teacher with a report of the activities and individual results of the students. In this specific case, the course lasted 18 weeks, with the implementation of the educational innovation spanning 14 weeks. This included the administration of a pre-test and a post-test. The games used were designed based on the grammatical structures outlined in the course syllabus (Table 1). Each week, students completed two games: one in a synchronous context at the end of the unit to assess the week's content and another assigned for autonomous student work.

Table 1

Implementation Process.

Week	Activity	Grammatical aspect covered
1	Pre-test administration	
2	1 synchronous game - 1 autonomous game	Present perfect and simple past
3	1 synchronous game - 1 autonomous game	Present perfect continuous
4	1 synchronous game - 1 autonomous game	Modal verbs: obligation and prohibition
5	1 synchronous game - 1 autonomous game	Modal verbs: ability and possibility
6	1 synchronous game - 1 autonomous game	Passive forms
7	1 synchronous game - 1 autonomous game	Modal verbs of deduction
8	1 synchronous game - 1 autonomous game	Gerunds and infinitives
9	1 synchronous game - 1 autonomous game	Indirect style
10	1 synchronous game - 1 autonomous game	First conditional
11	1 synchronous game - 1 autonomous game	Second conditional
12	1 synchronous game - 1 autonomous game	Third conditional
13	1 synchronous game - 1 autonomous game	Quantifiers
14	Post-test and perception questionnaire administration	

Note. Implementation process planning, own elaboration (2025).

At the beginning of the course, the researcher informed the students that an educational innovation would be implemented in the classroom. Once the course was completed, the researcher invited students to voluntarily participate in the study by signing an informed consent form, followed by the administration of the perception survey. Although data collection for the pre- and post-test was conducted during the course as part of regular class activities, only the data from students who agreed to participate were included in the sample (author). Given the current pandemic context, both the administration of the instruments and the signing of the informed consent form (Creswell & Creswell, 2023) were carried out remotely using Google Survey.

Statistical analysis refers to the process of collecting, organizing, interpreting, and presenting numerical data to discover underlying patterns and relationships (Hernández, Fernández & Baptista, 2014). In this study, the pre- and post-test results were analyzed using SPSS software, conducting Levene's test for homogeneity of variances, the Shapiro-Wilk test for normality, and the Wilcoxon signed-rank test (non-parametric test for paired data). Finally, a boxplot was generated to visually compare the distribution of pre-test and post-test scores. In addition, section A of the perception survey was analyzed using percentages.

On the other hand, Section B of the survey (open-ended questions) was analyzed through a deductive process using a content analysis technique (Creswell, 2012). The responses were reviewed and coded according to three predetermined categories, based on the guiding survey questions: support for learning, positive impact in the classroom, and negative impact in the classroom. Each response was segmented and assigned to one or more of these categories through a systematic coding process. To strengthen the credibility of the findings, methodological triangulation was applied by comparing the qualitative results with the quantitative survey data and performance outcomes from the pre- and post-tests (Creswell & Plano Clark, 2017).

Results

The study found that using Kahoot! in ERT significantly improved students' grammatical performance, as shown by higher post-test scores. Moreover, survey responses indicated that students viewed the tool as enjoyable, motivating, and helpful for reinforcing content. Qualitative data echoed these results,

Quintanilla-Espinoza, A., Ferreira-Gómez, L. & Vera, R. (2025). Enhancing Grammatical Awareness with a Game-based Response System during Emergency Remote Teaching. *Revista Tecnológica-Educativa Docentes 2.0*, 18(2), 261-271. https://doi.org/10.37843/rted.v18i2.709

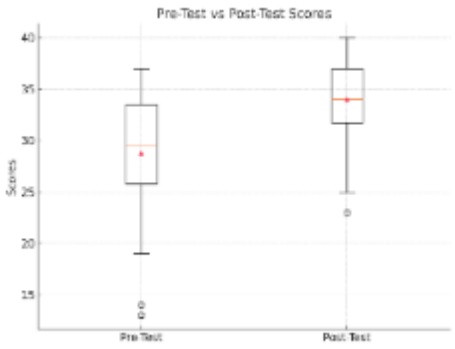
highlighting increased participation and focus. Despite some concerns about competitiveness, anxiety, and internet access, the findings support the pedagogical value of Kahoot! in promoting engagement and grammar learning in online educational settings.

The pre-test and post-test scores were analyzed to evaluate the impact of the intervention. The median scores increased from 29.5 (pre-test) to 34.0 (post-test), while the mean scores rose from 28.74 (pre-test) to 34.0 (post-test). The standard deviation decreased from 6.21 (pre-test) to 4.28 (post-test), indicating reduced variability in the post-test scores. The Shapiro-Wilk test revealed that pre-test scores were not normally distributed ($p = 0.027$), while post-test scores followed a normal distribution ($p = 0.062$). Additionally, Levene's test for homogeneity of variances indicated a significant difference in variances between the two groups ($p = 0.041$).

The Wilcoxon signed-rank test indicated a statistically significant difference between pre-test and post-test scores ($W = 0$, $p < 0.001$). This suggests a measurable improvement in performance following the intervention. Finally, Figure 6 shows the comparison between pre-test and post-test scores through a boxplot. The post-test scores have a higher median (34.0) than the pre-test (29.5), indicating improved performance. Additionally, the narrower interquartile range (IQR) and shorter whiskers in the post-test suggest greater consistency and reduced variability. Overall, the boxplot highlights the intervention's effectiveness in improving and standardizing learning outcomes.

Figure 6

Pre-test and Post-test Scores.



Note. Bloxpot comparing pre-test and post-test scores, own elaboration (2025).

The results presented in Table 2 provide an overview of students' perceptions of using Kahoot in language classes. Overall, students expressed a positive attitude towards the tool, highlighting its potential to enhance engagement and learning, while also identifying some challenges. In terms of positive aspects, a significant proportion of students found Kahoot enjoyable and user-friendly. Most participants (88.5%) strongly agreed that using Kahoot was fun, and 83% strongly agreed that it was easy to use. Similarly, 69% strongly agreed that they would like to continue using Kahoot in the future, indicating a high level of acceptance and enthusiasm for its integration into the classroom.

When considering learning benefits, Kahoot was perceived as an effective tool for reinforcing class content, with 60% strongly agreeing that it helped consolidate what they had learned. Additionally, 80% strongly agreed that the immediate feedback provided by Kahoot supported their learning. The platform also encouraged active participation, as evidenced by 51.5% of students strongly agreeing that it helped them engage more in class activities.

Building on these findings, many students acknowledged Kahoot's positive influence on the classroom dynamic, with 63% strongly agreeing that it fostered a positive atmosphere and 60% strongly agreeing that it facilitated effective interaction among students and with the instructor. Additionally, Kahoot was noted for its impact on motivation and focus, as 60% of students strongly agreed that it increased their motivation to participate in class, while 43% strongly agreed that it helped them stay more attentive during lessons.

Despite the positive feedback, some challenges emerged, as highlighted in Table 2. For instance, the competitive aspect of Kahoot elicited mixed reactions. While competition may have energized some students, 57% strongly agreed that it created a negative environment in the classroom. Additionally, 20% of students strongly agreed that they felt anxious when using Kahoot, which suggests that the platform might not be equally comfortable for all learners.

However, technical issues were not a significant concern, as most students (74%) disagreed or strongly disagreed with experiencing frequent problems. This is still an

area to monitor, as 23% of students remained neutral on the issue. In addition, feedback on game features and anonymity revealed a range of opinions. The display of top-performing students at the end of each game was met with mixed responses: 40% of students expressed neutrality, while 23% strongly disagreed that this feature should be removed, and only 3% strongly agreed with its removal. Similarly, students showed varying preferences regarding anonymity; while 31% disagreed and 23% strongly disagreed with preferring not to give their names, 29% remained neutral on the matter, suggesting some ambivalence.

Table 2

Section A of the Perception Survey.

	SD N (%)	D N (%)	U N (%)	A N (%)	SA N (%)
As a student who participated in the implementation of KAHOOT in language classes:					
Using Kahoot was fun.	0	0	1(3%)	3(8.5%)	31(88.5%)
Using Kahoot allowed me to consolidate the content learned in class.	0	0	3(9%)	11(31%)	21(60%)
Using Kahoot was a waste of time.	27(77%)	8(23%)	0	0	0
Using Kahoot is easy.	0	0	0	6(17%)	29(83%)
I didn't like using my cellphone while using Kahoot.	0	1(3%)	5(14%)	8(23%)	21(60%)
I would like to continue using Kahoot in the future.	0	0	0	11(31%)	24(69%)
Using Kahoot allowed me to receive immediate feedback regarding my learning.	0	0	0	7(20%)	28(80%)
Kahoot enabled effective interaction in class.	0	0	5(14%)	9(26%)	21(60%)
Using Kahoot increased my motivation to participate in class.	0	1(3%)	7(20%)	6(17%)	21(60%)
Kahoot stimulates competition, thus creating a negative environment in the classroom.	1(3%)	0	1(3%)	13(37%)	20(57%)
Using Kahoot allowed me to participate actively in class.	0	3(8.5%)	6(17%)	8(23%)	18(51.5%)
Using Kahoot helped me pay more attention in class.	0	5(14%)	8(23%)	7(20%)	15(43%)
There are many technical issues when using Kahoot in class.	11(31%)	15(43%)	8(23%)	1(3%)	0
Using Kahoot creates a positive environment in the classroom.	0	0	6(17%)	7(20%)	22(63%)
I think Kahoot should not display the students with the top 3 results at the end of the game.	8(23%)	6(17%)	14(40%)	6(17%)	1(3%)
I feel anxious when Kahoot is used in class.	7(20%)	13(37%)	8(23%)	6(17%)	1(3%)
Kahoot allowed me to monitor my learning in the subject.	0	0	5(14%)	8(23%)	22(63%)
I preferred not to give my name when using Kahoot.	8(23%)	11(31%)	10(29%)	6(17%)	0

Note. Perception survey results, own elaboration (2025).

The data obtained from the open-ended questions are organized into three categories: support for learning, positive impact in the classroom, and negative impact in the classroom. In the first category, **support for learning**, participants were asked: How do you think Kahoot supports students' learning? In this regard, the participants of the study indicate that Kahoot supports learning because it motivates students to participate in class and improve academic performance (12 mentions), allows for a more interactive class with active participation (11 mentions), provides immediate feedback on learning (11), creates a more entertaining

Quintanilla-Espinoza, A., Ferreira-Gómez, L. & Vera, R. (2025). Enhancing Grammatical Awareness with a Game-based Response System during Emergency Remote Teaching. *Revista Tecnológica-Educativa Docentes 2.0*, 18(2), 261-271. https://doi.org/10.37843/rted.v18i2.709

learning process (9 mentions), puts learned content into practice (8 mentions), and helps identify what has been learned and what needs further practice (7 mentions), as exemplified by the excerpts below:

> *"When we use Kahoot, we put into practice what we learned during class. This way, in my case, I knew what I needed to improve on because with each exercise, I could see what I needed to practice and what I didn't."* (Subject 13)
>
> *"Kahoot provides immediate feedback and is a dynamic and interactive activity that creates motivation and interest in participating in class."* (Subject 25)
>
> *"It's a way to practice class material and know if we understood it correctly."* (Subject 6)
>
> *"Kahoot helps by providing feedback on our knowledge and motivates us to study the content covered in class and keep improving."* (Subject 28)

In addition to the primary themes identified, participants pointed out other benefits of Kahoot that, while mentioned less frequently, remain noteworthy. These include its role in fostering healthy competition (5 mentions), reducing the monotony of traditional lessons (4 mentions), enhancing collaboration and interaction among peers (4 mentions), and improving attention and focus on class (3 mentions), as exemplified by the excerpts below:

> *"Being a game makes learning more fun and encourages learning grammar concepts through healthy competition."* (Subject 30)
>
> *"Kahoot supports learning in a fun and engaging way, providing a break from the routine or monotony of online classes."* (Subject 26)
>
> *"It stimulates interaction with classmates and participation in class."* (Subject 16)
>
> *"It helps us stay alert and focused during the lesson because we know we'll participate in Kahoot afterward."* (Subject 15)

In the category, positive impact in the classroom, the question asked was the following: Do you think Kahoot has any negative impact in the classroom? In this regard, the participants of the study indicate that Kahoot has a positive impact in the classroom as it increases motivation and engagement in class (8 mentions), promotes active participation (6 mentions), provides immediate feedback on learning (5 mentions), encourages healthy competition (5 mentions), makes the class more dynamic and interactive (5 mentions), and creates a positive classroom environment (3 mentions), as exemplified by the excerpts below:

> *"Whenever we knew, we were going to use Kahoot, everyone who was connected would get excited and participate because it's very fun."* (Subject 9)
>
> *"Yes, it does, because being an out of the ordinary activity, it generates interest in what has been learned. At the same time, it allows students who usually don't participate orally to engage, thus observing their progress or resolving doubts through the activity itself."* (Subject 5)
>
> *"Definitely, it allows the teacher to instantly notice what was least understood during the class thanks to the results of each question, also giving time and the opportunity to explain it again in the moment or prepare better material for the next session."* (Subject 16)
>
> *"Well, yes, it's entertaining, we interact with each other, we laugh, and the teacher explains why when we make mistakes. It's fun and relaxing."* (Subject 22)
>
> *"Yes, because using this tool helps increase the competitiveness of students, making them want to study more for the next activity and stay in the top positions."* (Subject 17)

In addition to the more commonly highlighted benefits, participants also noted other positive impacts of Kahoot that, while less frequently mentioned, are still significant. These include reducing anxiety in participation (2 mentions), promoting teacher-student interaction (2 mentions), and supporting error recognition and correction (2 mentions), as exemplified by the excerpts below:

> *"In my opinion, it's very positive because it makes the class more interesting and provides an opportunity for students to learn and participate without worry."* (Subject 2)
>
> *"Yes, it helps us quickly recognize our mistakes and gives us feedback, plus it generates a greater connection between the teacher and students."* (Subject 21)

> *"It validates whether you understood the material or not, and the teacher gives you immediate feedback on why your answer is incorrect, allowing you to resolve your doubts early."* (Subject 20)

In this last category, negative impact in the classroom, the question asked was: Do you think Kahoot has any negative impact in the classroom? The participants of the study indicate that while Kahoot is generally seen as a positive tool, there are concerns about increased stress or anxiety due to competitiveness (10 mentions), challenges related to technology (3 mentions), and the potential for unhealthy competition (4 mentions), as exemplified by the excerpts below:

> *"Many students may feel bad about not being in the top 3 or having a high score, which can cause stress and anxiety."* (Subject 6)

> *"Not all students have a good internet connection, and they are in trouble when speed is required to answer the rounds of questions."* (Subject 12)
> *"It depends on the person. In general, there are toxic and competitive people in the world, which can create a bad atmosphere among students."* (Subject 24)

In addition to these more commonly mentioned concerns, participants also highlighted other potential negative impacts that, while less frequently noted, are still important to consider. These include pressure due to time constraints (2 mentions), exclusion or discomfort among certain students (2 mentions), and overemphasis on competition (2 mentions), as exemplified by the excerpts below:

> *"In general, no. Maybe it could make some students nervous when they feel pressured by the time."* (Subject 19)

> *"Yes, it could be that not all students enjoy it or feel comfortable participating in these types of activities."* (Subject 20)

> *"It could increase 'competition' in a negative way, but as long as the teacher explains that it's a game and not a competition, I don't think it would generate a major negative impact."* (Subject 15)

Discussion

This study aimed to answer the question: How does the use of Kahoot! impact grammatical awareness and student engagement during Emergency Remote Teaching (ERT)? The findings indicate that *Kahoot!* had a positive impact on both areas. Students demonstrated a statistically significant improvement in post-test grammar scores, suggesting that the tool effectively supported the development of grammatical awareness. Additionally, survey responses and qualitative data revealed high levels of engagement, with students describing the experience as motivating, dynamic, and useful for reinforcing content. These results underscore the potential of game-based tools like *Kahoot!* to enhance learning in virtual environments.

The findings confirm the effectiveness of integrating *Kahoot!* a game-based student response system, into ERT to foster both engagement (Tandiono, 2024) and grammatical development (Zarzycka-Piscorz, 2021). The significant gains in post-test performance suggest that gamified learning can help students master complex grammatical structures. These results align with prior research highlighting the benefits of gamification for student motivation and learning outcomes (Wang & Tahir, 2020; Zarzycka-Piscorz, 2021, Moreira et al., 2025).

Student perceptions further support the value of this tool, with the majority reporting increased engagement, enjoyment, and the benefit of immediate feedback. Such findings help illustrate how gamification can mitigate common challenges of ERT, including monotony, reduced motivation, and limited social interaction (Oportus et al., 2024). Notably, the use of *Kahoot!* also promoted active participation and a more positive classroom environment, supporting both individual learning and collaborative dynamics. These outcomes are consistent with studies conducted prior to the pandemic (Wang & Tahir, 2020), suggesting that the benefits of *Kahoot!* persist across different instructional contexts. These findings are further supported by Ojeda-Lara and Zaldívar- Acosta (2023), who highlight that successful gamification strategies—when well designed and implemented—can foster intrinsic motivation and help develop soft skills such as cooperation, communication, and creativity.

Nevertheless, some challenges were reported. Students noted increased anxiety linked to competitive features and occasional technical

Quintanilla-Espinoza, A., Ferreira-Gómez, L. & Vera, R. (2025). Enhancing Grammatical Awareness with a Game-based Response System during Emergency Remote Teaching. *Revista Tecnológica-Educativa Docentes 2.0*, 18(2), 261-271. https://doi.org/10.37843/rted.v18i2.709

difficulties. These concerns highlight the importance of implementing game-based tools thoughtfully, with attention to inclusivity and accessibility. Similar issues have been documented in previous research (Wang & Tahir, 2020). Despite these limitations, the overall benefits of *Kahoot!* in the context of ERT appear to outweigh the drawbacks, reaffirming its value as a pedagogical innovation in both virtual and traditional settings.

This study also presents several limitations. First, the sample size was relatively small (n = 35) and drawn from a single university, which limits the generalizability of the findings. Second, the use of convenience sampling may have introduced selection bias, as participants who volunteered might have had more favorable attitudes toward gamified learning. Third, the qualitative data were based on self-reported perceptions, which may be influenced by subjectivity or social desirability. Finally, technical issues—such as unstable internet connections during ERT—may have affected participation and, consequently, performance and engagement outcomes.

Building on these findings, future research could explore the long-term effects of game-based tools like *Kahoot!* on grammar learning across various teaching modalities. Further studies involving larger and more diverse samples would enhance the generalizability of results. It would also be valuable to examine how digital literacy and learner characteristics influence engagement and performance in gamified environments. These directions can contribute to a deeper understanding of gamification in language education.

Conclusions

The findings of this study highlight the significance of integrating gamified tools into language learning, particularly in online or emergency contexts. Results demonstrate that Kahoot! is an effective strategy for promoting grammatical awareness and student engagement among first-year English teaching program students during Emergency Remote Teaching (ERT). By incorporating game-based elements, it successfully addressed key challenges such as reduced motivation and limited interaction—issues that were especially intensified during the COVID-19 pandemic (Qutishat et al., 2022). The significant gains in test scores and the positive student feedback further underscore the pedagogical value of Kahoot! as a viable and engaging approach to enhance learning outcomes in the EFL classroom.

These results contribute to the advancement of teaching practices aligned with the specific objectives of this study—namely, to improve grammar performance and engagement through innovative digital tools. While the tool showed strong potential, the study also acknowledges certain limitations, including a small sample size (n = 35) and the use of convenience sampling, which may limit generalizability. In addition, technological barriers such as unstable internet connections may have affected participation and could constrain the applicability of Kahoot! in low-resource settings (Oyetodun, 2020; Qutishat et al., 2022). These factors suggest that while the tool supports learning, its success depends on ensuring equitable access to digital infrastructure and careful integration into course design.

Based on these insights, several recommendations for future research and practice are proposed. Educators should provide technical support and consider modifying competitive features to reduce anxiety and promote inclusion. For example, real-time participation requirements may need to be adapted for students with limited connectivity. Additionally, future studies could examine the long-term impact of gamified learning on broader language competencies and explore its implementation in various instructional formats beyond ERT. Other research avenues may include examining the role of digital tools in fostering self-regulation, learner autonomy, and differentiated instruction. Ultimately, this study reinforces the importance of game-based learning systems as effective and adaptable tools for fostering student motivation, engagement, and achievement in both virtual and face-to-face environments.

Acknowledgments

This study was supported by Fondo de Apoyo a la Docencia 2020 INICIA.doc- Project

N° 2020060 and by Agencia Nacional de Investigación y Desarrollo, Chile. Proyecto Fondecyt de Iniciación 11240175.

References

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Pearson.

Creswell, J.W. & Creswell, J.D. (2023). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. Sage Publications.

Creswell, J.W. & Plano Clark, V.L. (2017). *Designing and conducting mixed methods research* (3rd ed.). Sage Publications.

Deci, E. D., & Ryan, R. M. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology, 25*(1), 54-67. https://doi.org/10.1006/ceps.1999.1020

Hernández, R., Fernández, C. & Baptista, P. (2014). *Metodología de la investigación* (6ta ed.). Mcgraw-Hill.

Huriyah, H. (2022). Motivate students to learning English using the Kahoot game. *International Journal of Social Science and Human Research, 5*(7). 3104-3107. https://doi.org/10.47191/ijsshr/v5-i7-45

Masruroh, L. (2019). Teaching complex English grammar by using Kahoot apps. *Edulitics Journal, 4*(2), 80-84. https://doi.org/10.52166/edulitics.v4i2.1683

Moreira, P., Venegas, L., Domínguez, D. L. & Pino, J. (2025). Technology and Gamification in English Teaching for Civil Engineering: a Quasi-Experimental Study. *Salud, Ciencia Y Tecnología*, 5, 1471. https://doi.org/10.56294/saludcyt20251471

Llerena, E. & Rodríguez, C. (2017). Kahoot! A digital tool for learning vocabulary in a language classroom. *Revista Publicando, 4,* 12(1).

Ojeda-Lara, O., & Zaldívar-Acosta, M. (2023). *Gamificación como metodología innovadora para estudiantes de educación superior*. Revista Tecnológica-Educativa Docentes 2.0, 16(1), 5–11. https://doi.org/10.37843/rted.v16i1.332

Oportus, R., Contreras, Y., Sanhueza-Campos, C., Maluenza-Albornoz, J., Pérez-Villalobos, C., & Quintanilla-Espinoza, A. (2024). Self-regulated learning and engagement through emergency remote teaching in EFL undergraduate students. *Frontiers in Education, 9*. https://doi.org/10.3389/feduc.2024.1416507

Oyetodun, T. (2020). Sudden change of pedagogy in education driven by COVID-19: Perspectives and evaluation from a developing country. *Research in Globalization, 2.* https://doi.org/10.1016/j.resglo.2020.100029

Pasion, R., Dias-Oliveira, E., Camacho, A., Morais, C. & Campos, R. (2021), "Impact of COVID-19 on undergraduate business students: a longitudinal study on academic motivation, engagement and attachment to university", *Accounting Research Journal*, Vol. 34 No. 2, pp. 246-257. https://doi.org/10.1108/ARJ-09-2020-0286

Qutishat, D., Obeidallah, R., & Qawasmeh, Y. (2022). An Overview of Attendance and Participation in Online Class During the COVID Pandemic: A Case Study. *International Journal of Interactive Mobile Technologies (iJIM)*, *16*(04), pp. 103–115. https://doi.org/10.3991/ijim.v16i04.27103

Tandiono, R. (2024). Gamifying online learning: An evaluation of Kahoot's effectiveness in promoting student engagement. *Educ Inf Technol*, 29, 24005–24022. https://doi.org/10.1007/s10639-024-12800-1

Veljković Michos, M. (2017). Gamification in Foreign Language Teaching: Do You Kahoot?. Paper presented at Sinteza 2017 - International Scientific Conference on Information Technology and Data Related Research. https://doi:10.15308/Sinteza-2017-511-516

Wang, A. & Tahir, R. (2020). The effect of using Kahoot! for learning – A literature review. *Computers & Education, 149.* 1-22. https://doi.org/10.1016/j.compedu.2020.103818

Wieland, N., & Kollias, L. (2020). Online Learning Before, During and After COVID-19: Observations Over 20 Years. *International Journal of Advanced Corporate Learning (iJAC)*, 13(2), pp. 84–92. https://doi.org/10.3991/ijac.v13i2.16779

Zarzycka-Piscorz, E. (2021). Kahoot it or not? Can games be motivating in learning grammar? *Teaching English with Technology, 16*(3), 17-36. https://n9.cl/drzp1