Using Nearpod for improving grammar competence in EFL students in virtual education

Uso de NearPod para mejorar la competencia gramatical de estudiantes de inglés como lengua extranjera EFL en educación virtual

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Abstract: This study examines the effectiveness of Nearpod, an interactive learning tool, in enhancing grammatical competence among EFL (English as a Foreign Language) students in a virtual education context. A sample of 100 university students from the Language Center, at the fourth level of the redesigned program, was selected and divided into two groups: experimental and control. The experimental group utilized Nearpod in synchronous online classes, whereas the control group did not. The independent variable was the use of Nearpod, while the dependent variables were students' grammatical competence and their perceptions of Nearpod. Data collection involved a pretest, a grammatical competence test, a student perception survey, and a posttest of grammatical competence. The pretest results revealed that 42% of students had low grammatical competence. The perception survey indicated that most students found Nearpod easy to use, motivating, and effective in improving their grammatical skills, though some feedback and activity appropriateness could be enhanced. Posttest results showed significant improvement in grammatical competence in the experimental group, with fewer students scoring below 7 points and more achieving medium and high scores. After that, the triangulated results from the pretest, perception surveys, and posttest offer a comprehensive understanding of Nearpod's impact. The study concludes that Nearpod is an effective tool for enhancing grammatical competence in EFL students in virtual education, significantly contributing to better learning outcomes through student engagement and real-time feedback. By focusing on personalized learning and continuous improvement, Nearpod can further enhance EFL education and other learning areas.

Keywords*: nearpod application; online class; grammatical competence; student's perception.*

Resumen: Este estudio examina la efectividad de Nearpod, una herramienta de aprendizaje interactiva, para mejorar la competencia gramatical entre estudiantes de inglés como lengua extranjera (EFL) en un contexto de educación virtual. Se seleccionó una muestra de 100 estudiantes universitarios del Centro de Idiomas, en el cuarto nivel del programa rediseñado, y se la dividió en dos grupos: experimental y control. El grupo experimental utilizó Nearpod en clases sincrónicas en línea, mientras que el grupo de control no lo hizo. La variable independiente fue el uso de Nearpod, mientras que las variables dependientes fueron la competencia gramatical de los estudiantes y sus percepciones sobre Nearpod. La recopilación de datos incluyó un pretest, una prueba de competencia gramatical, una encuesta de percepción de los estudiantes y un postest de competencia gramatical. Los resultados del pretest revelaron que el 42% de los estudiantes tenían baja

competencia gramatical. La encuesta de percepción indicó que la mayoría de los estudiantes consideraron Nearpod de fácil uso, motivador y efectivo para mejorar sus habilidades gramaticales, aunque se sugirieron algunas mejoras en la retroalimentación y la adecuación de las actividades. Los resultados del postest mostraron una mejora significativa en la competencia gramatical en el grupo experimental, con menos estudiantes obteniendo puntajes por debajo de 7 puntos y un número mayor alcanzando puntajes medios y altos. Los resultados triangulados del pretest, las encuestas de percepción y el postest ofrecen una comprensión integral del impacto de Nearpod. El estudio concluye que Nearpod es una herramienta efectiva para mejorar la competencia gramatical en estudiantes de EFL en educación virtual, contribuyendo significativamente a mejores resultados de aprendizaje a través del compromiso de los estudiantes y la retroalimentación personalizada. Al enfocarse en el aprendizaje activo y el aprendizaje personalizado y la mejora continua, Nearpod puede ser una forma más eficaz en educación EFL y otras áreas de aprendizaje.

Palabras Clave*:* aplicación nearpod; clase en línea; competencia gramatical; percepción del estudiante

1. Introduction
Importance and purpose of the research

Since COVID 19 the teaching learning process has changed a lot. Technology has been an important means to carry out this worldwide Education revolution. Online learning demand is now greater and it is going to continue being one of modes with higher levels of education accessibility (Brown & Adler, 2008). Moreover, the benefits that online education offers are aligned to the reality of most students who need to work at the same time as studying, promoting flexibility. Online learning allows education accessibility, extensive resources, mainly students 'performance and satisfaction may reach the same levels as a face-to-face education type (Afrouz & Crisp, 2021).

English has kept being a challenging communication skill for Latin American students. According to the EF English Proficiency Index (2019 and 2023) in Ecuador the English proficiency averages were 46.6 and 46.7 correspondingly which means they are low and have not improved in this period. Additionally, the teaching supports, such as curricula and students 'proficiency assessment need progress to acquire the required proficiency English levels in Ecuadorian students. In Ecuador; mostly in public education, students' amount per course is so high that teachers cannot monitor each learner as it should be. This complication is worsened by the fact that English programs are too demanding for students who are not prepared enough since they enter college. Obviously, this turns out in a low proficiency assessment in English as a Foreign Language Competency (Cronquist & Fiszbein, 2017).

English is considered the global language since it is widely spoken and used worldwide. Because of this, it is obvious that it has a lot of incidences in economy, policy, culture, education and employment which are the pillars of any society to evolve and survive (Melitz, 2016). This lingua franca has also created international relationships in other states such as scientific research, technology and entertainment areas (Rao, 2019). Additionally, English is important to acquire most of the most important 21st century skills called the 4Cs, meaning Communication, Collaboration, Critical Thinking and Creativity. These skills are relevant to actively participate in the present and future communities (Ratama et al., 2021).

Online education presents many challenges such as students´ participation, time management, content development and integration of multimedia in content. Since online education allows students to study at any place, distractors are more probable to deal with for a teacher, making students´ participation more difficult. Moreover, when teachers do not consider time for training learners about the technology that is going to be used in the class, activities may take longer having time-management issues. Finally, teachers may have problems elaborating virtual resources or matching the content with the multimedia tools that are useful for the learning objectives they are trying to reach (Kebritchi et al., 2017).

Some problems when teaching grammar online is the monitoring and feedback in the proper time, teachers do not have enough time to control students´ participation or give them useful information about their tasks being the feedback an important action for learning mostly when they take responsibility for their own learning progress (Ellis et al; 2006). Furthermore, student's motivation in grammar online sections could be diminished if teachers do not provide a satisfactory virtual pathway in which students feel accompanied at all times in the class (Halim et al., 2021). Finally, learning grammar accuracy should be a main key to reach the learners autonomy in their writing skills (Vickers & Ene, 2006).

The purpose of this quantitative study is to analyze the incident that Nearpod has on English grammar accuracy learning in EFL (English as a Foreign Language) students. This research presents one independent and two dependent variables. The independent variable is the use of Nearpod in online synchronous classes for teaching Grammar; it is the one the researchers apply to the sample to measure the other variables. The first

dependent variable is the English Grammar competence students show after using Nearpod, and the second dependent variable is the perceptions students had after using this tool for learning Grammar topics.

Literature review

Kalsum (2021) in his qualitative study demonstrated that Nearpod is a very well accepted tool for high school students who felt engaged, active and motivated in their online classes. Moreover, Van Le et al. (2023) in his mixed study proved that Nearpod creates a high level of interaction in students. Sixty-eight undergraduate students showed positive results regarding content, teacher and peers' interaction through this tool allowing collaboration, negotiation and co-construction in their learning process.

Furthermore, Civelek et al. Karatepe (2021) demonstrated in their mixed study that self-paced pragmatics instruction was remarkably improved with the use of Nearpod. Eleven university students showed improvement in their request performance and internal-external modifiers use. Finally, it was found that students overcame the mistakes they had in the pre-test 1, after the treatment.

Online modality is recognized for promoting autonomy and self-study in students. Anggoro et al. (2022) presents benefits and limitations that Nearpod has in virtual education. Among the benefits, the use of Nearpod promotes collaboration, monitoring and feedback. Nearpod allows students to work together in a collaborative board writing comments and observing their peers´ answers. Additionally, it helps teachers to monitor the learning process more effectively while students receive automatic feedback.

Salvador & Conza (2022) in their study demonstrated that Nearpod was useful to carry out successful formative assessments in Ecuadorian students. This quasi-experimental research included forty-six university students. The objective was to determine the effect of Nearpod for English grammatical competence and analyze the learner´s acceptance toward this tool. The results showed that the experimental group did better grammar performance in tests than the control group. Finally, they showed a positive reaction toward this tool since they experimented its usefulness and friendliness in its use.

Sholikhah & Ningsih (2023) applied a mixed method to thirty-eight university students to study interactive pathways to teach grammar proficiency and students´ perspectives. The

results were better performing in grammar competence and also positive students' perception. With grammar competence students felt they also improved their language used in speaking. Finally, this research makes teachers and students reflect on the role that technology could have for integrating learning when using appropriate interactive applications.

Nearpod has also been studied to demonstrate its effectiveness in other competence skills. Mastura et al. (2023) held a pre-experimental study with thirty university students. The treatment process included training related to the tool before and after the reading tests to demonstrate how important it is that students have some preparation before using a new technological tool. The average in the pre-test was 65.17 and 71.50 in the post-tes. These results showed that using Nearpord was more effective than conventional classroom reading practice.

Villegas (2022) in her mixed research explored the use of Nearpod to improve writing skills applying tests based on an email and image description. Thirty-three university students participated in eight interventions (writing lessons). Some of the strategies used in the treatment procedure were exemplification of writings, filling in the gaps, vocabulary related to the assignment, and diagrams for writing ideas. The results showed that the average before the treatment (6,24) was lower than the one after it (9,24) demonstrating that Nearpod had a great incidence in the students´ writing skills.

Furthermore, Turahmah et al. (2023) made a study to investigate how Nearpod could improve students' listening skills. This quantitative research was applied to sixty high school students, thirty were part of the experimental group and the other students were the control group. Researchers applied a listening test with twenty items that included multiple-choice and fill in the blank's questions. Results showed that both groups improved in the post-test, but the experimental one obtained higher performance in listening comprehension which proved that Nearpod can also have good results when it is applied in offline activities.

Regarding speaking skills, researchers with positive results aligned to Nearpod were not found. Mantilla (2022) in her research with nineteen eight-grader students and eight teachers conducted a descriptive study. The objective was to measure the impact that

Nearpod could have on speaking fluency, interaction and participation. Students ´ perception, not students ´ performance, was the basis for this study. According to the teachers' opinions, Nearpod made it easier for them to teach the class, but for students it was irrelevant. On the other hand, students perceived they did not feel any difference using the tool, thus, not experiencing any improvement in their communication skills because of Nearpod use. These results might have been obtained because of the incorrect or non-use of this technological tool which means that teachers´ training is also really important before applying the treatment.

Wulandari et al. (2023) developed a study about analyzing critical thinking skills of students assisted with nearpod media on ecosystem materials using a quantitative approach. Two groups of students, experimental and control group, were considered. Moreover, pretest and posttest were applied to determine the extent to which Nearpod assisted students to increase their critical thinking arguments. Even though–both groups demonstrated improvement, the experimental group out performed the control group getting a mean that was 22 points higher.

General Contextualization of the Theme

Nearpod has so many uses in the online education mode. In an interactive classroom, teachers can use Nearpod to create and share engaging multimedia presentations with their students. It enables educators to incorporate a wide range of interactive elements, such as surveys, tests, films, role-playing, and group projects, directly into their presentations. Students can engage in real-time, individually or in groups, using their own devices. Teachers can use Nearpod's statistics to monitor their students' development and comprehension. It is widely utilized to enhance in-class involvement from students, facilitate remote learning, and personalize education (Musa & Momani, 2022).

As Grammar is a variable of this study, it is important to clarify what it is and the different main terms related to it. Grammars that differentiate between appropriate and incorrect forms are called "prescriptive" grammars, grammar rules. As "mental grammar," or unconscious comprehension of the language, the rules function as speakers' guides for constructing coherent structures. Grammar models differ greatly depending on whether they are formal or functional grammars. Formal grammar focuses on the forms and how

they fit into the overall grammar system. Because formal theories see language acquisition as the learning of grammar rules, they have an impact on methods that prioritize codified grammar rules. Research has brought more relevance to analyses of "discourse grammar," or the functional roles of grammatical structures in speech. The study of second language acquisition in classroom and natural settings has shaped current theories on how grammar is learned (Larsen & DeCarrico, 2019).

Lastly, this study analyzes students' perceptions toward the use of Nearpord to learn grammar so it is overriding to point out what exactly is and why it is important to examine its definition and what is closely related to it. Students' perception is what students think and feel toward a teaching method, educational resources, assessment, teachers' behavior and content topics. Students' perception is important since it may have a direct relationship with students' performance. Students with negative perceptions tend to pay less attention to the class or subject, declining in motivation and cognitive processing. Negative perceptions have a substantially large effect on student performance, which means that wrong perceptions are difficult to change (Ferreira & Santoso, 2008).

Objectives

Main objective:

This action research is aimed at analyzing the **incidence** of using online learning tools to improve grammar competence in EFL virtual university education context using Nearpod as the technological tool.

Specific objectives:

1. Compare students´ proficiency in grammar accuracy competence before and after using Nearpod as a conducted lesson controlled by the teacher in synchronous classes.

2. Analyze the students' perception toward the use of the Nearpod technological tool to learn grammar before and after the treatment.

Scope and Limitations

Two areas will be examined in this study: the students' perception toward the use of Nearpod, and the grammar competence the learners acquire using this tool. The sample population of this study consists of 100 students, who will have four weeks of grammar

instructional program through Nearpod. Some of the limitations are the technology resources available to certain students and the technological know-how required for a more enjoyable and productive participation. In addition, since the Nearpord free version only allows 40 students per session, teachers would have to create, enable, apply and monitor up to two sessions per class and for each course. Lastly, another restriction is that the space in the free account is 100 MB, which could be a problem for creating a lot of resources**,** but the good thing is that creations can be shared among the teaching staff, allowing for effective collaboration among teachers within a department, to develop a rich bank of resources for the subject.

2. Methodology

The research was quantitative with a quasi-experimental pretest-posttest design. This approach allowed measuring the impact of using Nearpod on the grammatical competence of English as a Foreign Language (EFL) students in a virtual education environment.

Population and sample

Sample Size: A sample of 100 university students from the Language Center corresponding to the fourth level of the redesigned program was selected.

Groups: The students were divided into two groups, experimental and control, to compare the results.

Independent variable: Use of Nearpod in synchronous online classes.

Dependent variables:

- Students' grammatical competence in English.
- Students' perception of using Nearpod.

Data collection instruments

Pretest: Used to assess students' grammatical competence before the intervention.

Used to evaluate students' perceptions of using Nearpod in English classes.

Procedure - pretest:

Administration of the pretest: The pretest was administered simultaneously to the 100 students, divided into experimental and control groups with Google forms.

Objective of the pretest: To evaluate the initial grammatical competence of students to establish a baseline before the intervention.

Content of the pretest: The pretest consisted of 10 multiple-choice questions designed to assess various areas of B1 level grammatical competence. The questions covered verb tenses, modals, conditionals, passive voice, reported speech, relative clauses, articles, and prepositions.

Pretest questions:

- Complete the sentence with the correct form of the verb in brackets: "By the time you arrive, we (finish) our dinner."

- Choose the correct answer: "She (is working/works) at the moment."

- Fill in the blank with a suitable modal verb: "You (must/can) be quiet in the library."

- Rewrite the sentence using the second conditional: "If I (win) the lottery, I would travel around the world."

- Change the sentence into the passive voice: "The chef prepares the meal."

- Rewrite the sentence in reported speech: "He said, 'I will help you tomorrow.'"

- Complete the sentence with the correct relative pronoun: "The book (that/which) I borrowed from the library was fascinating."

- Fill in the blank with the correct article: "She is (a/an/the) best player on the team."

- Choose the correct preposition: "He arrived (at/in/on) the station early."

- Complete the sentence: "She enjoys (to read/reading) in her free time."

- Analysis of Pretest Results

After administering the pretest, the following results were obtained:

Score Distribution:

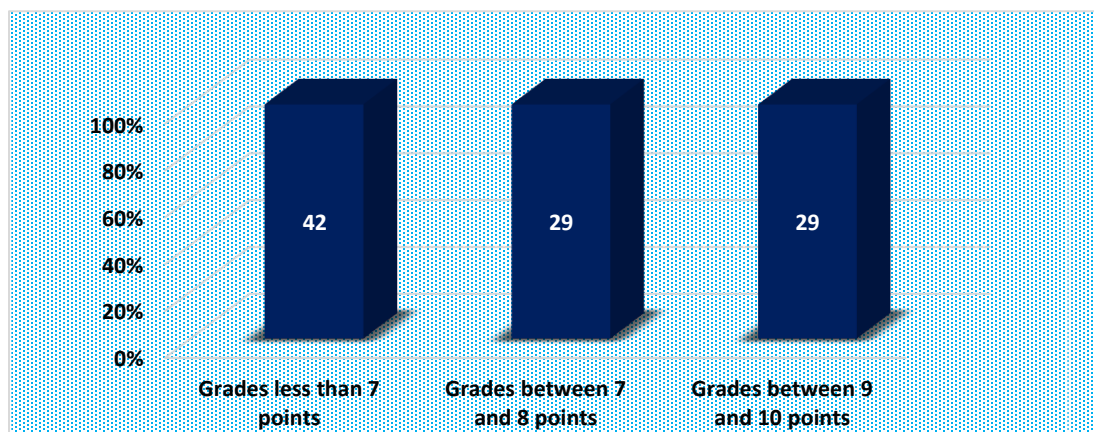Less than 7 points: 42 students (42% of the total)

Between 7 and 8 points: 29 students (29% of the total)

Between 9 and 10 points: 29 students (29% of the total)

3. Results

Figure 1

Grades according to pre-Test.

General Grammatical Competence

Less than 7 points: 42 students (42% of the total)

These students had low grammatical competence, indicating a need for additional support and specific attention in the grammatical areas where they had difficulties.

Between 7 and 8 points: 29 students (29% of the total).

These students had medium grammatical competence, with a basic understanding of grammar, but required reinforcement in certain aspects to reach a higher level.

Between 9 and 10 points: 29 students (29% of the total)

These students had high grammatical competence, demonstrating a solid understanding of B1 level grammar.

Implications for the Nearpod intervention

- **Group with less than 7 points:**

The intervention with Nearpod should focus on this group to provide additional activities and exercises to strengthen weak areas. Nearpod could provide an interactive environment that motivates these students and enhances their grammatical understanding.

- **Group with 7 to 8 points:**

Nearpod could be used to consolidate and expand the grammatical knowledge of these students, with activities focused on specific aspects where they needed improvement.

- **Group with 9 to 10 points:**

Although these students already had a high level of grammatical competence, Nearpod could offer them additional challenges and opportunities to apply their knowledge in more complex and advanced contexts.

Teaching strategies

- **Personalized learning:**

Nearpod allowed the creation of personalized lessons that addressed the needs of the different competence groups, including differentiated lessons, interactive activities, and specific practice exercises.

- **Monitoring and feedback:**

Nearpod enabled teachers to monitor student progress in real-time and provide immediate feedback, crucial for helping students who scored less than 7 points to improve quickly.

- **Fostering collaboration:**

Nearpod facilitated collaborative activities that allowed students to work together, share knowledge, and support each other in learning grammar.

Perception section

For the perception survey, a sample of 100 students was taken. The demographic section was distributed as follows:

Age:

- 20 to 24 years: 91 students (91%)
- 25 to 29 years: 9 students (9%)

Gender:

- Female: 60 students (60%)
- Male: 40 students (40%)

English level:

- Basic (A1-A2): 95 students (95%)
- Intermediate (B1): 5 students (5%)

Previous experience with Nearpod:
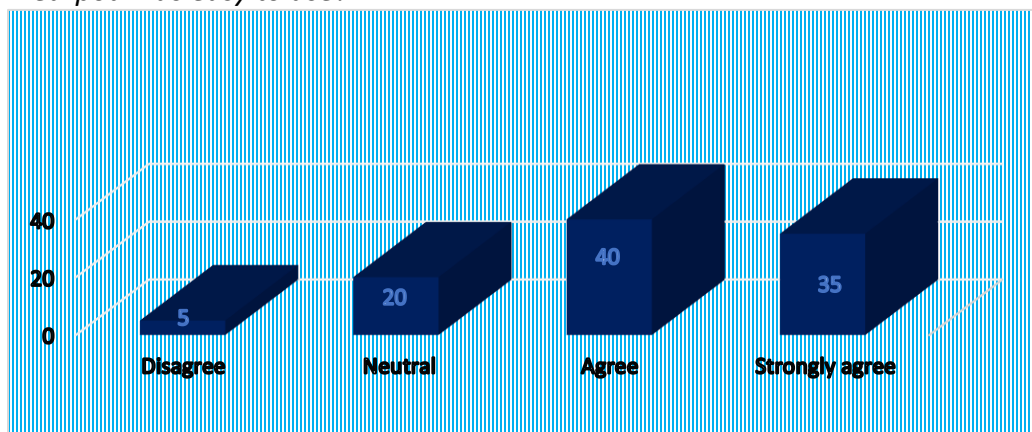
- Yes: 47 students (47%)

- No: 53 students (53%)

Perception survey

Please indicate your level of agreement with the following statements about the use of Nearpod in your grammar classes, using the following Likert scale:

1. Strongly Disagree
2. Disagree
3. Neutral
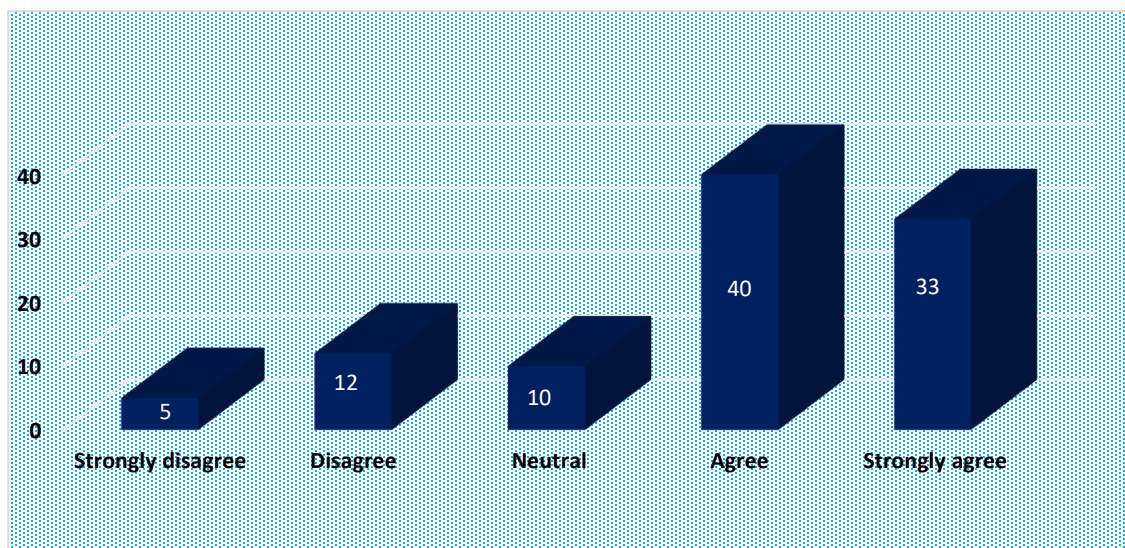4. Agree
5. Strongly Agree

Figure 2
Nearpod was easy to use?.

Analysis: The majority of students (75) found Nearpod easy to use, with 40% agreeing and 35% strongly agreeing. Only a small percentage (5%) disagreed, suggesting that Nearpod is an intuitive and accessible tool for most students.
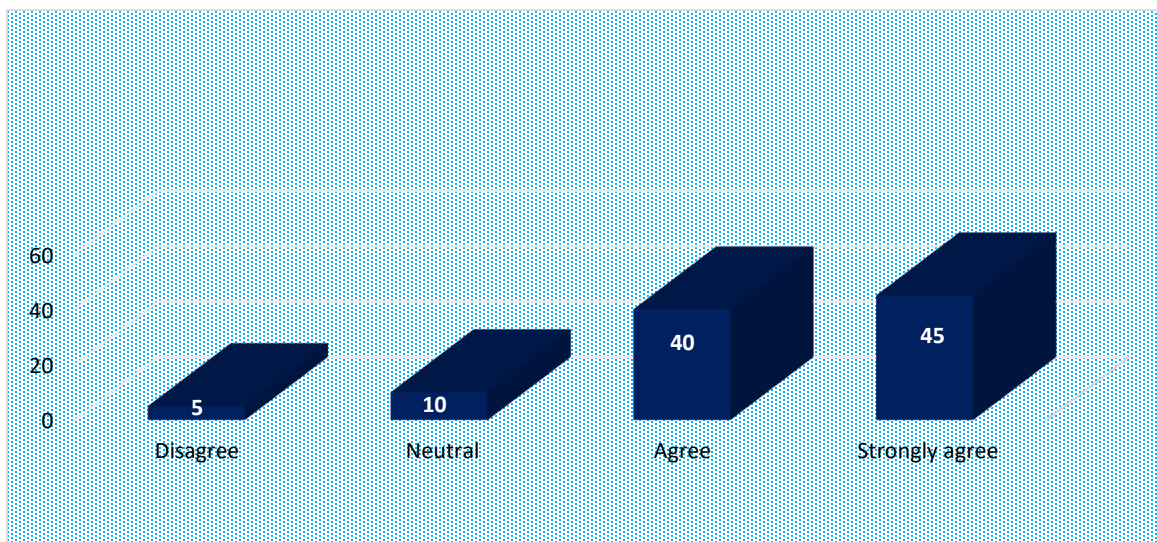
Figure 3
I felt more motivated to participate in grammar lessons using Nearpod.

Most students (73) felt more motivated to participate in grammar lessons using Nearpod, with 40% agreeing and 33% strongly agreeing. This indicates that Nearpod positively impacts students' motivation to engage in class activities.
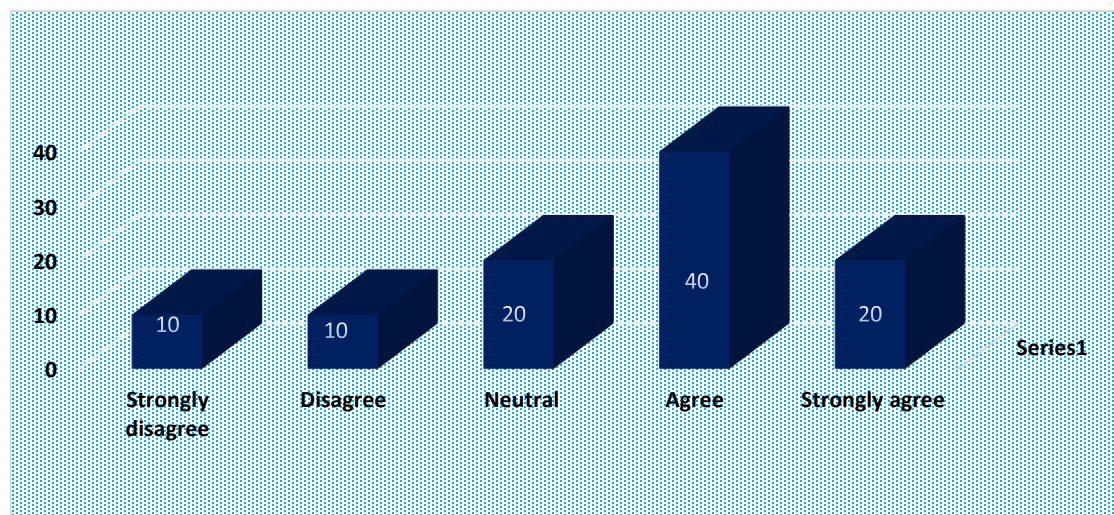
Figure 4
Am I satisfied with the use of Nearpod in my grammar learning?.

A total of 85 students expressed satisfaction with the use of Nearpod in their grammar learning, with 40% agreeing and 45% strongly agreeing. Only a small group (15) was not satisfied, suggesting that most find the tool useful and effective.

Figure 5
Nearpod helped me better understand grammatical concepts?.

A total of 85 students expressed satisfaction with the use of Nearpod in their grammar learning, with 40% agreeing and 45% strongly agreeing. Only a small group (15) was not satisfied, suggesting that most find the tool useful and effective.

Figure 6
Nearpod facilitated collaboration with my classmates during classes?.
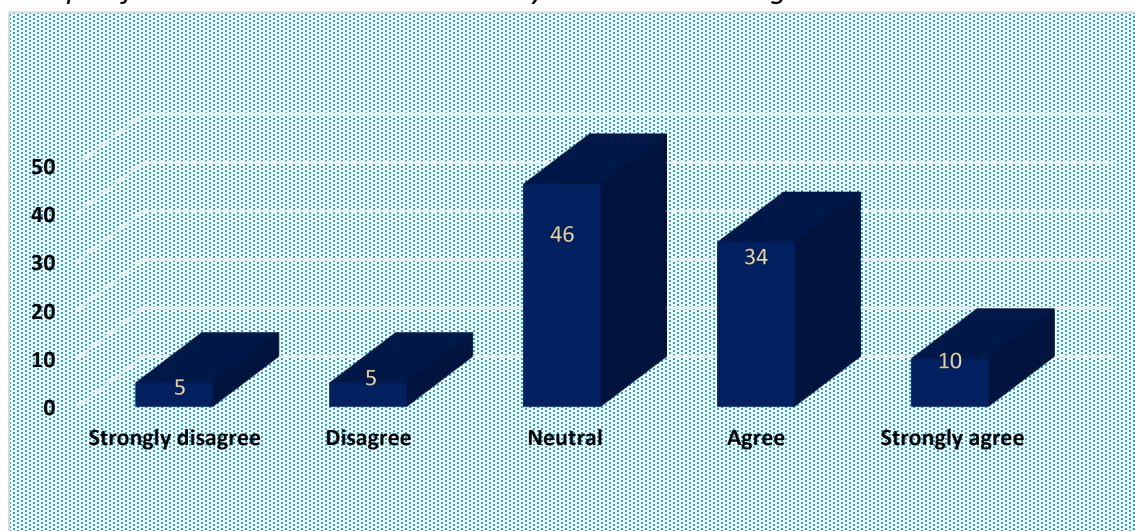
Total of 60 students agreed that Nearpod facilitated collaboration with their classmates, with 46% agreeing and 14% strongly agreeing. However, 25% remained neutral and 15% disagreed, suggesting that collaboration may depend on additional factors such as group dynamics and the implementation of collaborative activities.
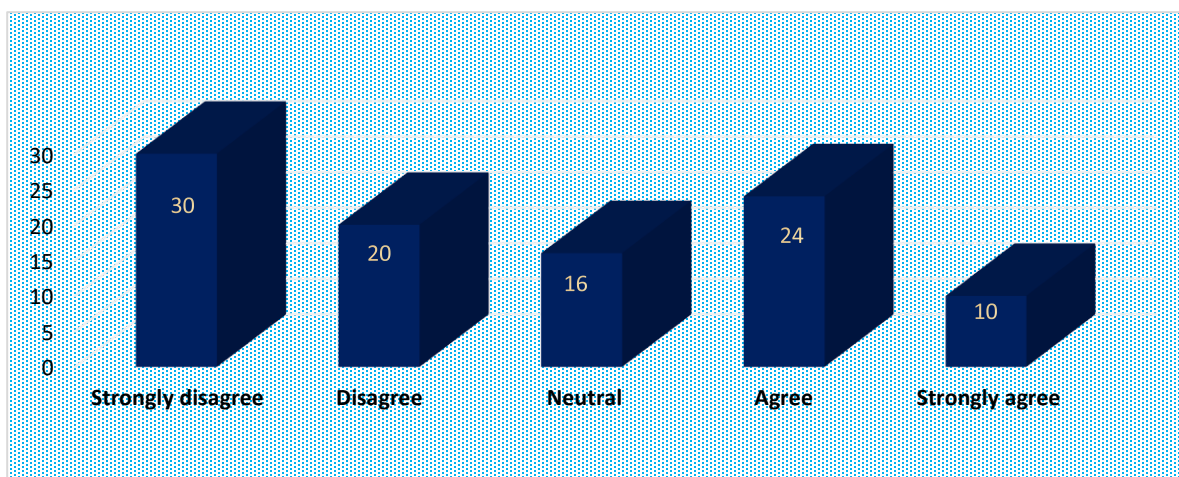
Figure 7
I received useful feedback through Nearpod?.
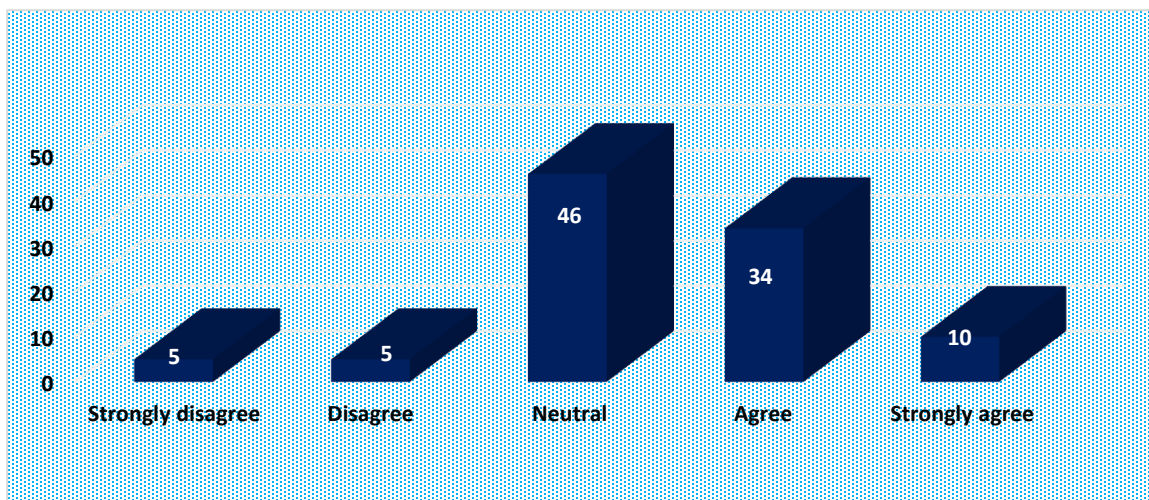
Most students (51) agreed that they received useful feedback through Nearpod, with 46% agreeing. However, a significant percentage (34) remained neutral, indicating that feedback could be improved to be more effective.

Graphic 8
I feel more confident in my grammar competence after using Nearpod?.

Most students (51) agreed that they received useful feedback through Nearpod, with 46% agreeing. However, a significant percentage (34) remained neutral, indicating that feedback could be improved to be more effective.

Figure 9
I would recommend the use of Nearpod to other students for grammar learning.
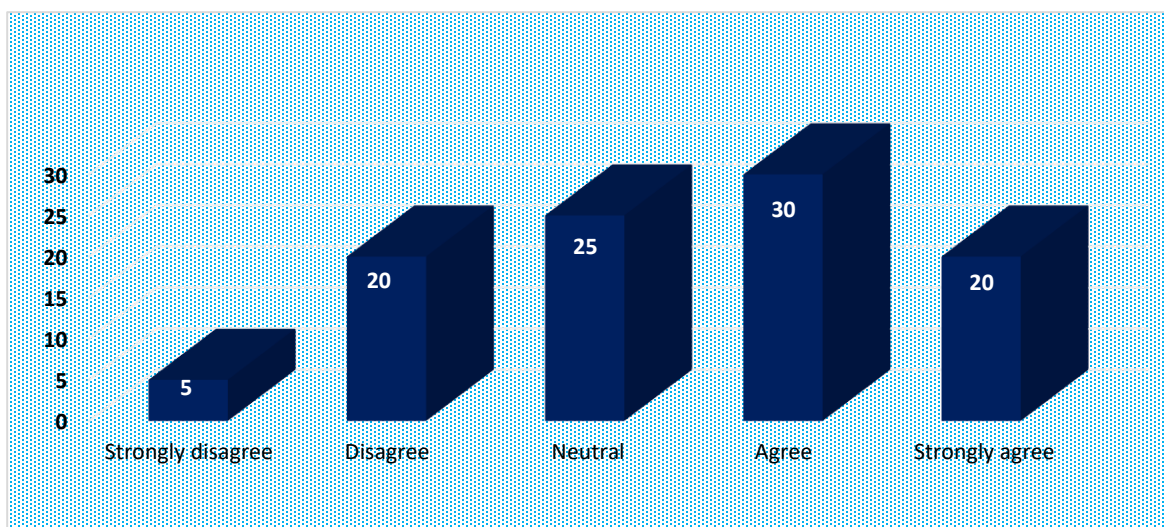
Most students (50) would recommend using Nearpod to others for grammar learning, with 30% agreeing and 20% strongly agreeing. However, 25% remained neutral, indicating that the recommendation of Nearpod may depend on individual experiences.

Figure 10
*I would like to continue using Nearpod in future English classes?.*
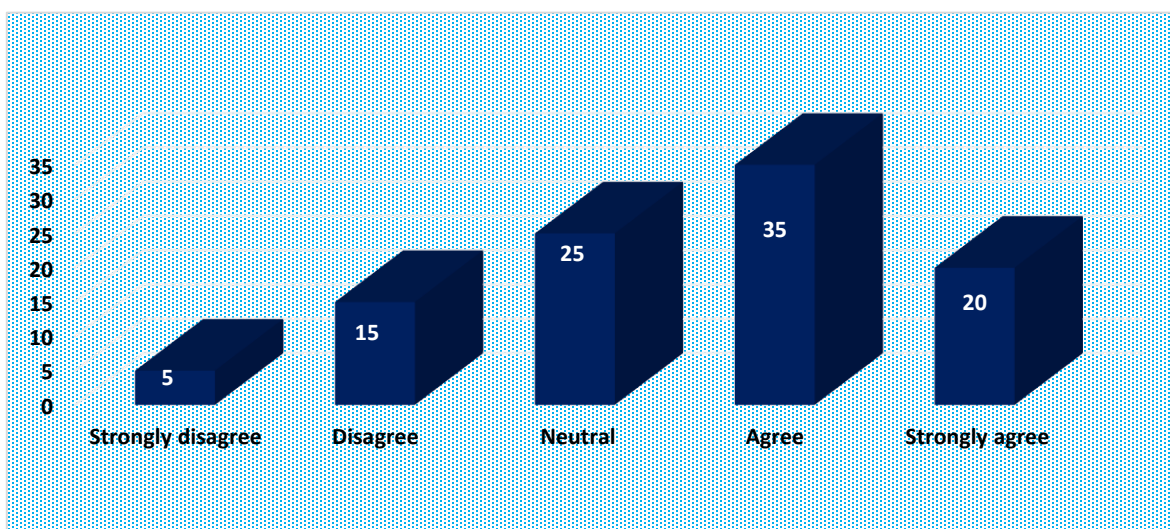
A total of 55 students would like to continue using Nearpod in future English classes, with 35% agreeing and 20% strongly agreeing. Twenty-five percent remained neutral, suggesting that the continuation of Nearpod usage is welcome by most but not all.

Figure 11
The Nearpod activities were appropriate for my English level.
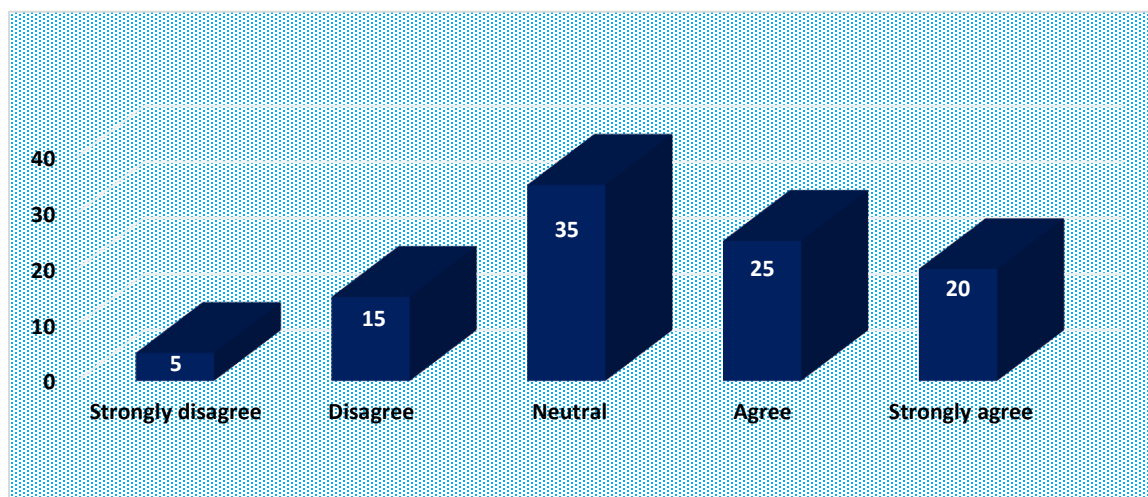
Most students (55) found the Nearpod activities appropriate for their English level, with 35% agreeing and 20% strongly agreeing. However, 25% remained neutral, suggesting that the activities may not have been equally appropriate for all levels of competence. The survey results indicate a generally positive acceptance of Nearpod's use in grammar classes. Most students found the tool easy to use, motivating, and helpful for grammar learning. However, some aspects, such as feedback and the appropriateness of activities for all competence levels, could be improved to maximize Nearpod's effectiveness in the educational context.

Procedure for the posttest

Administration of the posttest:

Timing: The posttest was administered at the end of the intervention with Nearpod.

Participants: The 100 students who participated in the pretest, divided into experimental and control groups, also participated in the posttest.

Objective: To assess changes in students' grammatical competence after the intervention.

Content: The posttest consisted of the same 10 multiple-choice questions used in the pretest to ensure comparability of results.

Posttest questions:

1. Complete the sentence with the correct form of the verb in brackets: "By the time you arrive, we (finish) our dinner."

2. Choose the correct answer: "She (is working/works) at the moment."

3. Fill in the blank with a suitable modal verb: "You (must/can) be quiet in the library."

4. Rewrite the sentence using the second conditional: "If I (win) the lottery, I would travel around the world."

5. Change the sentence into the passive voice: "The chef prepares the meal."

6. Rewrite the sentence in reported speech: "He said, 'I will help you tomorrow.'"

7. Complete the sentence with the correct relative pronoun: "The book (that/which) I borrowed from the library was fascinating."

8. Fill in the blank with the correct article: "She is (a/an/the) best player on the team."

9. Choose the correct preposition: "He arrived (at/in/on) the station early."

10. Complete the sentence: "She enjoys (to read/reading) in her free time."

Posttest results

After administering the posttest, the following results were obtained:

Score distribution:

Less than 7 points: 20 students (20% of the total)

Between 7 and 8 points: 45 students (45% of the total)

Between 9 and 10 points: 35 students (35% of the total)

Analysis of posttest results

Overall grammatical competence:

Less than 7 points: 20 students (20% of the total)

These students have low grammatical competence. Although the proportion of students in this group decreased significantly compared to the pretest, there is still a group that requires additional support to reach higher levels of competence.

Between 7 and 8 points: 45 students (45% of the total)

These students have medium grammatical competence. The majority of students fall into this category, indicating a significant improvement in their understanding and grammatical skills.

Between 9 and 10 points: 35 students (35% of the total)

These students have high grammatical competence. This group also increased compared to the pretest, showing that a significant portion of students achieved an advanced level of grammatical competence.

Comparison with pretest results:

Less than 7 points:

Pretest: 42 students (42% of the total)

Posttest: 20 students (20% of the total)

Analysis: There was a significant decrease in the number of students with low grammatical competence, suggesting that the Nearpod intervention was effective in improving the grammatical skills of this group.

Between 7 and 8 points:

Pretest: 29 students (29% of the total)

Posttest: 45 students (45% of the total)

Analysis: This group showed an increase, indicating that many students who initially had low competence improved to a medium level.

Between 9 and 10 points:

Pretest: 29 students (29% of the total)

Posttest: 35 students (35% of the total)

Analysis: There was also an increase in this group, suggesting that some students improved from a medium to a high level of grammatical competence.

Effectiveness of Nearpod:

- The decrease in students with low scores and the increase in students with medium and high scores indicate that Nearpod had a positive impact on improving grammatical competence.
- Most students in the experimental group achieved medium to high competence levels, demonstrating that the tool is effective for teaching grammar in a virtual learning environment.

Recommendations for the future:

- **Additional reinforcement:** Continue using Nearpod but implement additional reinforcement sessions for students who still have low grammatical competence.

- **Personalized learning:** Further personalize Nearpod activities to address the specific needs of each student, ensuring that everyone can benefit maximally from the tool.
- **Continuous assessment:** Conduct continuous assessments to monitor progress and adjust teaching strategies as necessary.

Triangulation of results

Pretest, perception survey, and posttest comparison:

Pretest results:

Highlighted a significant number of students with low grammatical competence (42%).

Perception survey:

Revealed that most students found Nearpod easy to use, motivating, and effective in improving their grammatical skills.

Some students indicated that feedback and the appropriateness of activities could be improved.

Posttest results:

Showed a marked improvement in grammatical competence, with fewer students scoring below 7 points and more students achieving medium and high scores.

Consistent findings:

- The decrease in students with low scores from the pretest to the posttest, combined with the positive feedback from the perception survey, indicates that Nearpod was effective in enhancing grammatical competence.
- The perception survey's feedback aligns with the improvement seen in the posttest scores, suggesting that students' positive experiences with Nearpod translated into better performance.

The triangulated results support the continued use of Nearpod for teaching grammar in virtual environments. The need for additional reinforcement for some students and the personalization of activities to cater to different competence levels were identified as key areas for improvement. The triangulated results from the pretest, perception survey, and posttest provide a comprehensive understanding of the impact of Nearpod on students' grammatical competence. Nearpod proved to be an effective tool in improving grammatical skills, motivating students, and enhancing their overall learning experience. Future

implementations should focus on personalized learning and continuous assessment to further optimize the benefits of using Nearpod in EFL education.

4. Discussion

The use of Nearpod as a tool to improve grammatical competence in EFL (English as a Foreign Language) students in virtual education has been the focus of various studies, each highlighting different aspects of its effectiveness. This discussion compares the results of previous studies with the findings of the current research, providing a comprehensive understanding of Nearpod's impact on EFL education.

According to Salvador & Conza's study (2022) in Ecuador showed that Nearpod was effective for formative assessments. Their experimental group outperformed the control group in grammar tests, and students reacted positively to Nearpod's usefulness and user-friendliness. This aligns with the current study, where Nearpod also led to significant improvements in grammatical competence and received positive feedback from students**.**

On the other hand**,** Sholikhah & Ningsih (2023) emphasized the role of interactive technology in teaching grammar proficiency, highlighting positive reflections from both teachers and students. While the study focused on the broader role of technology, the positive perceptions of Nearpod in the current study mirror the favorable outlook towards interactive applications.

A study made by Mastura et al. (2023) about reading skills found that Nearpod was more effective than traditional classroom practices, with significant improvements in post-test scores. Although this study focused on reading rather than grammar, the positive impact of Nearpod on learning outcomes is consistent with the current study's findings on grammatical competence.

Villegas (2022) made a study on impact of writing skills, and discovered substantial improvements in students' performance after using the tool. This study supports the current research by demonstrating Nearpod's effectiveness across different language skills, further validating its utility in enhancing grammatical competence as core skill of any language.

In contrast with the positive results, Mantilla (2022) researched on speaking skills but he did not find significant improvements using Nearpod due to students reporting no noticeable difference in their communication skills. This contrasts with the current study's positive results in grammatical competence, suggesting that Nearpod may be more effective for written language skills (grammar and writing) than for speaking skills. This is not to say that Nearpod is not worth working with. Rather, using it frequently will allow teachers to innovate and use strategies using Nearpod resources itself to develop speaking skills.

5. Conclusion

The study's objective was to analyze the impact of Nearpod on improving grammatical competence in EFL students within a virtual educational context. Through a triangulation of pretest results, perception surveys, and posttest results, it becomes evident that Nearpod significantly enhances students' grammar accuracy and overall learning experience.

- **Comparing grammar proficiency before and after using Nearpod**: The pretest results indicated a significant number of students with low grammatical competence (42%). After the intervention with Nearpod, the posttest results showed a marked improvement, with fewer students scoring below 7 points and more achieving medium to high scores. This demonstrates that Nearpod effectively enhances grammatical accuracy in EFL students.

- **Analyzing student perceptions of Nearpod**: The perception surveys revealed that most students found Nearpod easy to use, motivating, and effective in improving their grammatical skills. While some students suggested improvements in feedback and activity appropriateness, the overall positive feedback aligns with the improved posttest scores. This suggests that students' positive experiences with Nearpod contributed to their better performance.

- **Triangulation of results:** The triangulated results from the pretest, perception surveys, and posttest provide a comprehensive understanding of Nearpod's impact. The decrease in students with low scores and the positive feedback from students indicate that Nearpod is effective in enhancing grammatical competence. The

alignment of students' positive perceptions with their improved performance further supports this conclusion.

In conclusion, Nearpod has proven to be an effective tool for improving grammatical competence in EFL students in a virtual education context. Its ability to engage students and provide real-time feedback significantly contributes to better learning outcomes. By focusing on personalized learning and continuous improvement, educators can further enhance the positive impact of Nearpod in EFL education and even for other learning areas.

Recommendations

First, one recommendation is the continued use of Nearpod due to this study's support for its effectiveness in teaching grammar in virtual environments. Its interactive features and real-time feedback capabilities make it a valuable tool for improving grammatical competence in EFL students.

Second, personalized learning and continuous assessment are encouraged. Future implementations should focus on these strategies to address different competence levels. Providing additional reinforcement and tailored activities can further optimize the benefits of using Nearpod.

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