

APPLYING THE NEARPOD PLATFORM IN DESIGNING EXERCISES TO IMPROVE ENGLISH GRAMMATICAL COMPETENCE FOR HIGH SCHOOL STUDENTS

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ARTICLE INFO	ABSTRACT
Received: 11/3/2025 Revised: 31/3/2025 Published: 31/3/2025 KEYWORDS Grammar Grammatical competence Nearpod platform Game-based learning High school students	Grammar acquisition remains a challenge for many EFL learners, necessitating innovative approaches to enhance learning effectiveness. This study investigates the impact of using the Nearpod platform on improving high school students' grammatical competence. A quasi-experimental design with sampling was selected, including 40 students of class 10A7 at Ngo Quyen High School. The participants were divided into an experimental group, which used Nearpod for grammar practice, and a control group, which followed traditional methods. Data collection included pre- and post-tests to measure grammatical improvement and pre- and post-questionnaires to assess students' attitudes. The results showed that students in the Nearpod-supported learning environment improved significantly in grammar accuracy compared to students in the control group. Furthermore, surveyed students expressed positive attitudes toward grammar learning via Nearpod, highlighting the benefits of interactive activities such as multiple-choice exercises, time to climb, and matching pairs. These findings suggest that Nearpod serves as an effective tool for enhancing grammatical competence, underscoring the potential of integrating educational technology into EFL instruction.

ỨNG DỤNG NỀN TẢNG NEARPOD TRONG VIỆC THIẾT KẾ BÀI TẬP ĐỂ CẢI THIỆN NĂNG LỰC NGỮ PHÁP TIẾNG ANH CHO HỌC SINH TRUNG HỌC PHỔ THÔNG

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THÔNG TIN BÀI BÁO	TÓM TẮT
Ngày nhận bài: 11/3/2025 Ngày hoàn thiện: 31/3/2025 Ngày đăng: 31/3/2025 TỪ KHÓA Ngữ pháp Năng lực ngữ pháp Nền tảng Nearpod Học tập dựa trên trò chơi Học sinh trung học	Việc tiếp thu ngữ pháp vẫn là một thách thức đối với nhiều người học tiếng Anh như một ngoại ngữ (EFL), đòi hỏi những phương pháp đổi mới nhằm nâng cao hiệu quả học tập. Nghiên cứu này khảo sát tác động của việc sử dụng nền tảng Nearpod đối với việc cải thiện năng lực ngữ pháp của học sinh trung học. Thiết kế nghiên cứu bán thực nghiệm với phương pháp chọn mẫu có chủ đích đã được áp dụng, bao gồm 40 học sinh lớp 10A7 tại Trường Trung học Phổ thông Ngô Quyền. Các đối tượng nghiên cứu được chia thành hai nhóm: nhóm thực nghiệm, sử dụng Nearpod để thực hành ngữ pháp, và nhóm đối chứng, học theo phương pháp truyền thống. Dữ liệu được thu thập thông qua bài kiểm tra trước và sau can thiệp nhằm đo lường sự tiến bộ về ngữ pháp, đồng thời kết hợp bảng hỏi trước và sau nghiên cứu để đánh giá thái độ của học sinh đối với việc học ngữ pháp. Kết quả nghiên cứu cho thấy học sinh trong môi trường học tập có sự hỗ trợ của Nearpod đạt mức cải thiện đáng kể về độ chính xác ngữ pháp so với học sinh trong nhóm đối chứng. Bên cạnh đó, các học sinh được khảo sát bày tỏ thái độ tích cực đối với việc học ngữ pháp qua Nearpod, nhấn mạnh lợi ích của các hoạt động tương tác như bài tập trắc nghiệm, trò chơi "Time to Climb" và ghép cặp. Những phát hiện này cho thấy Nearpod là một công cụ hiệu quả trong việc nâng cao năng lực ngữ pháp, đồng thời nhấn mạnh tiềm năng của việc tích hợp công nghệ giáo dục vào giảng dạy tiếng Anh như một ngoại ngữ.

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1. Introduction

The growing significance of English in global communication has necessitated continuous advancements in language learning methodologies. English is an official language in more than 53 countries and regions, facilitating international trade, cultural exchange, and global collaboration. According to Parmawati (2018) [1], acquiring English is vital in today's interconnected world, as it allows individuals to communicate effortlessly across borders in diverse sectors, including business, politics, education, and the economy. To achieve effective second language acquisition, learners need to establish a thorough understanding of grammatical frameworks. A solid grasp of grammar empowers them to communicate fluently, write accurately, and understand spoken or written content more proficiently. A strong command of grammar enables learners to construct coherent sentences, comprehend complex texts, and communicate with accuracy and confidence. Despite the widespread use of English, mastering the language remains a challenge, particularly for non-native speakers who struggle with grammatical structures. Traditional grammar instruction in EFL contexts often lacks engagement and interactivity, leading to limited retention and application of grammatical rules. Many students find conventional methods monotonous, which diminishes motivation and hinders effective grammar learning. Therefore, an effective grammar learning platform for students is extremely necessary.

In this study, the researcher employed Nearpod as a tool to design grammar exercises for tenth-grade high school students to enhance English grammar student's competence. The specific objective of this study was to evaluate the extent to which Nearpod can increase students' grammatical accuracy and motivation. Nearpod is a cross-platform e-learning tool that enables real-time interaction between students and teachers regardless of size or subject area. In lectures, Nearpod can be a very useful tool to motivate and engage students through frequent, in-depth interactions between students and teachers that are used consistently. Nearpod's interactive presentation program creates meaningful results from multiple perspectives to improve understanding. Nearpod is useful for both teachers and students, especially because of its visually appealing features. In addition, Smith and Jones (2021) emphasized that using Nearpod in teaching not only increased student engagement but also significantly improved grammatical accuracy through interactive exercises and instant feedback [2].

1.1. Grammatical competence

Grammar plays a fundamental role in second language acquisition, serving as the structural framework that enables effective communication. According to Chomsky (1965), [3] defines grammar as a system of rules that allows sentence formation and comprehension, reinforcing its essential function in communication. Similarly, Quirk et al. (1985) [4] emphasize grammar as a rule-based system governing phrase and clause structure, enabling learners to construct meaningful sentences. Corder (1981) [5] further argues that grammar is not merely a set of memorized rules but a functional system applied in real-life interactions. The importance of grammar lies in its role in organizing language logically and facilitating comprehension. Without grammar, communication would be ambiguous and imprecise. A strong grammatical foundation enables learners to interpret sentences, deduce meanings of unknown words, and construct grammatically accurate statements. Chomsky (1986) [6] highlights grammar as the framework essential for understanding and producing meaningful communication. Thornbury (2001) [7] and Ur (1996) [8] further assert that grammar is indispensable for clarity, coherence, and avoiding misunderstandings in conversation. Therefore, mastering grammar enhances proficiency in speaking, reading, and writing, ultimately fostering confidence in language use.

1.2. Background on Nearpod

Nearpod is an interactive educational platform designed to enhance student engagement through real-time participation and multimedia integration. Launched in 2012, it enables teachers to create dynamic lessons incorporating quizzes, polls, videos, and other interactive activities, fostering an engaging learning environment. According to Wang et al. (2019) [9], Nearpod enhances student motivation and knowledge retention by incorporating gamified elements such as word connections, matching exercises, and multiple-choice questions. Moreover, school administrators can utilize Nearpod for tracking student progress and accessing extensive educational resources, making it a versatile tool for both instruction and management.

Functionally, Nearpod synchronizes presentations across multiple devices, allowing teachers to deliver content in structured steps. First, educators design interactive lessons using a variety of multimedia formats. Next, students access the material via a unique code, either in real-time classroom sessions or self-paced learning modes. Finally, teachers can monitor student responses and provide immediate feedback, reinforcing comprehension and engagement [10]. Research has shown that Nearpod supports grammar learning by providing an interactive and immersive experience that aids in conceptual understanding and application [11].

1.3. The advantages of Nearpod

Nearpod offers many benefits in teaching, especially in improving engagement, learning motivation and assessment effectiveness. Many experimental studies have demonstrated the benefits of using Nearpod in educational settings, particularly in language learning and grammar instruction. For instance, Ryan (2017) [12] reported that integrating Nearpod into crowded classrooms enhanced teacher–student interactions through features such as collaborative boards and draw-it activities, which in turn reduced student anxiety by allowing more open sharing of ideas. Burton (2019) [13] further evidenced that Nearpod’s interactive tools significantly improved classroom engagement and motivation, while Jing and Yue (2016) [14] highlighted that its poll activities and real-time reporting provided teachers with immediate feedback on learners’ performance, streamlining both formative assessment and post-lesson analysis.

In addition to these general benefits, recent research has specifically underscored Nearpod’s effectiveness in teaching grammar. Smith et al. (2020) [15] found that Nearpod’s interactive grammar exercises led to significant improvements in students’ grammatical accuracy, suggesting that the platform’s engaging and multimodal approach facilitates a deeper understanding of grammatical structures. Similarly, Lee and Kim (2019) [16] demonstrated that students using Nearpod for grammar tasks exhibited higher levels of motivation and lower levels of language anxiety compared to those in traditional classrooms. Collectively, these studies provide robust empirical support for Nearpod’s role in enhancing both the teaching and learning of grammar by fostering interactive, responsive, and student-centered learning environments.

2. Methodology

The study used a quasi-experimental method to investigate how Nearpod helps improve grammar competence in high school students. The research method used a pre-test and post-test experimental design to measure the differences between the experimental group and the control group, where one group received Nearpod-based grammar instruction while the other group used traditional methods. Participants included 40 students selected from class 10A7, aged 15 to 16, divided into two separate groups of 20 participants each. There were 20 students in the experimental group (using Nearpod) and the control group had the same members (not using Nearpod).

The experimental research was done for 7 weeks. In the first week, a pre-test was used as a baseline grammar test for all students before using the treatment (it includes 20 questions related to grammar in the second semester of English 10). Likewise, a questionnaire was surveyed to

gather information on students' grammar learning (it includes 5 questions). From Week 2 to Week 6, the experimental group engaged in grammar exercises on the Nearpod platform, while the control group followed traditional learning methods, such as reviewing textbooks and completing practice tests. Specifically, the exercises on Nearpod during this period aligned with the grammar topics covered in Units 6 to 10 of the tenth-grade curriculum. In the third week, a practice test would be given for both groups to evaluate improvement in students' grammatical competence. In the final week, participants took a test consisting of 20 questions to check whether the students improved their grammar competence. Additionally, the experimental group responded to a post-questionnaire (it includes 5 questions) to provide feedback on their experience using Nearpod.

This study employed Google Forms to collect and categorize data from both the pre- and post-questionnaires, which consisted of five questions. The questionnaire included five Likert-scale items, incorporating both multiple-choice and open-ended questions, designed to assess students' motivation for grammar learning. While both the experimental and control groups were required to complete the pre-questionnaire, only the experimental group participated in the post-questionnaire to evaluate their learning experience. The pre-test and post-test each comprised 20 questions, including 15 multiple-choice items and 5 sentence correction tasks, covering key grammar topics from the second semester of grade 10. These topics included passive voice with modals, comparative and superlative adjectives, relative clauses, reported speech, and conditional sentences. The collected data were systematically analyzed to provide a comprehensive assessment of the intervention's impact on students' grammar proficiency. Excel 2019 was used to compute statistical data from the test results, enabling a comparative analysis between the two groups. By adopting a quantitative research approach, this study aimed to evaluate the effectiveness of the Nearpod platform in enhancing students' grammatical competence.

3. Findings and discussion

To demonstrate improvement after 7 weeks of experimentation, the researcher would compare the results of the Pre-test and the Post-test. Overall, the average score had improved after 7 weeks of experimenting, indicating that the student's efforts after completing the course yielded beneficial outcomes.

3.1. The current situation of students' English grammar

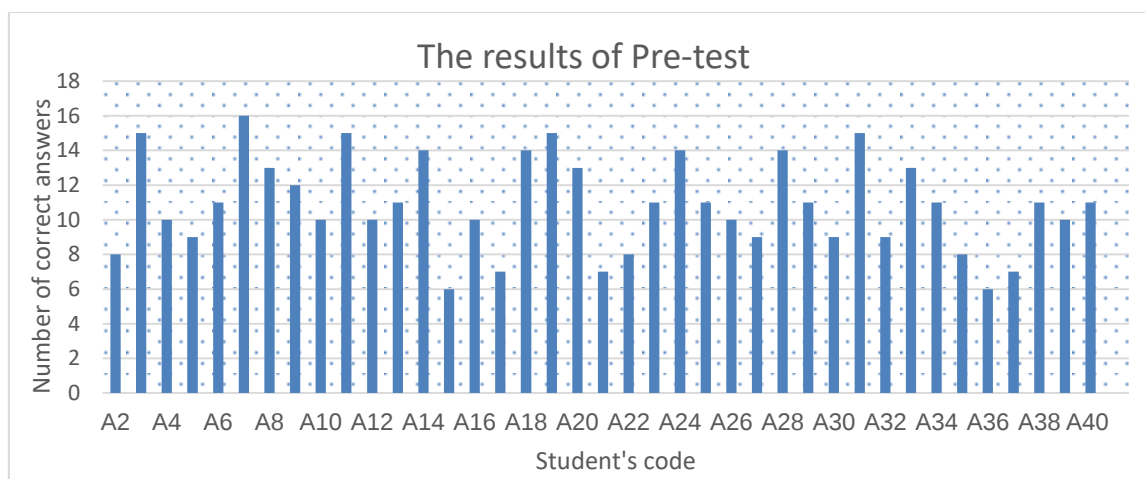


Figure 1. The results of the Pre-test

Figure 1 shows the students' initial level of grammatical competence based on the data collected. The vertical bar chart shows the number of correct answers each student gave in the

Pre-test. Each bar corresponds to a student, coded with symbols such as A1, A2, A3, etc. Which, students with serial numbers from A1 to A20 belong to the experimental group, and students with codes from 21 to 40 belong to the control group.

Before utilizing Nearpod in studying grammar, of these, 9 students scored 14 points or more, demonstrating a better grasp of grammar than their classmates. Similarly, 19 students achieved this average score as they scored 10-13 correct sentences. Notably, 12 students scored less than 10 correct sentences, indicating that they have low knowledge of grammar and need to improve this situation.

3.2. Changes in grammar competence of individual students before and after 7 weeks (Pre-test & Post-test)

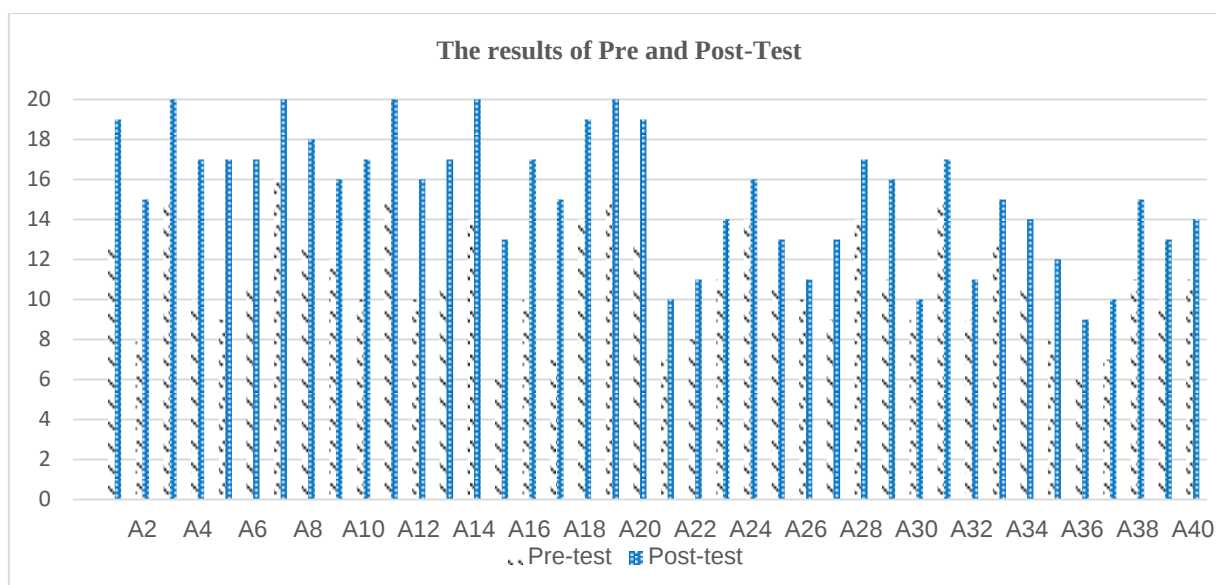


Figure 2. The results of the Pre and Post-Test

Figure 2 illustrates the students' pre- and post-test grammar proficiency based on the collected data. The vertical bar chart shows the number of correct answers for each student. Each bar corresponds to a student, coded with symbols such as A1, A3, A5, etc. Which, students with serial numbers from A1 to A20 belong to the experimental group, and students with codes from 21 to 40 belong to the control group.

From the table above, it can be seen that notable enhancements in both groups, with the experimental group demonstrating considerably greater advancement.

For the experimental group, the pre-test scores varied from 6 to 16, while the post-test scores rose from 13 to 20. The most significant gains were achieved by students A5 and A17, each improving their scores by 40%. Several students (A2, A4, A10, A15, and A16) also exhibited a notable progress of 35%. On average, the students in the experimental group improved from 25% to 40%, highlighting the strong positive influence of the learning approach implemented.

In contrast, the control group has pre-test scores ranging from 6 to 15, with post-test scores increasing from 9 to 17. The greatest improvement was seen in A29, who increased their score by 30%. Most participants in this group experienced enhancements between 5% and 20%, which was significantly lower compared to the experimental group. Overall, progress in the control group was more subdued, with advancements primarily falling between 10% and 20%.

The bar chart in Figure 3 illustrates the percent average number of correct answers before and after the experiment for both the experimental and control groups.

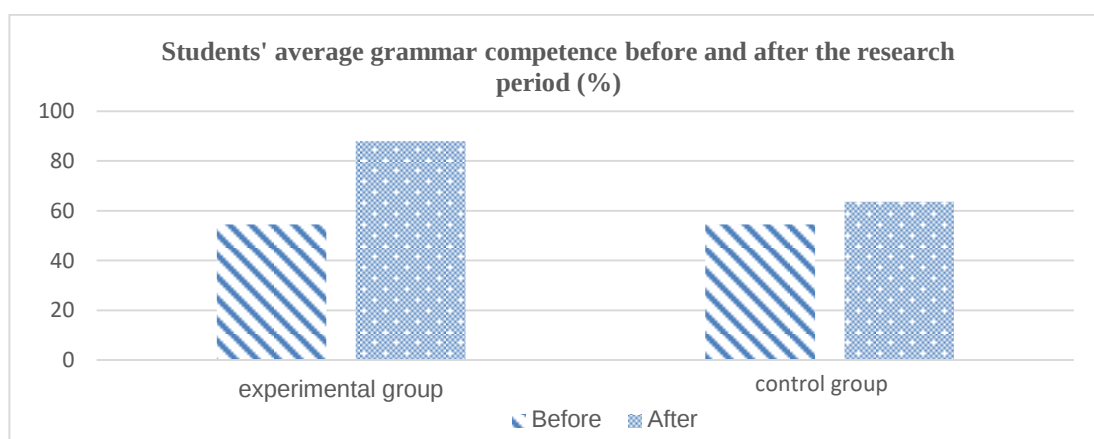


Figure 3. Students' average grammar competence before and after the research period

As can be seen in Figure 3, the grammatical structure accuracy of students in the experimental group almost doubled compared to before treatment, about 33.4%. While the control group only increased about 9.1% compared to the initial level. From this, it can be seen that the Nearpod game-based platform helped students improve their grammar ability incredibly.

Table 1. Descriptive statistics of the pre and post-test on students' performance

Test type	Group type	N	Mean	Std. Deviation	t-value	p-value	Statistical Significance
Pre-test	Experimental Group	20	11.6	2.85	1.30	0.200	Not significant (p > 0.05)
Pre-test	Control Group	20	10.5	2.47			
Post-test	Experimental Group	20	17.6	2	6.46	1.63x 10 ⁻⁷	Significant (p < 0.001)
Post-test	Control Group	20	13	2.48			

Table 1 shows the relationship between the results of the pre- and post-test of the experimental and control groups. The t-test results provide clear evidence of the impact of the learning method. Before the intervention, both groups had almost similar performance levels, as shown by the pre-test scores, experimental: M = 11.6, SD = 2.85; control: M = 10.5, SD = 2.47, respectively. The difference was insignificant, with a p-value of 0.200, meaning the two groups started at roughly the same level.

However, after the intervention, the experimental group showed a significant improvement, scoring much higher in the post-test, M = 17.6, SD = 2.00, compared to the control group, M = 13.0, SD = 2.48. Furthermore, the t-value 6.46 and p-value 1.63×10^{-7} indicate that this difference is highly significant (p < 0.001). In other words, the improvement in the experimental group was not a result of random chance but was a direct result of the learning method.

These findings strongly suggest that the implemented learning strategy was successful in enhancing student performance, while the control group, which did not undergo the intervention, exhibited less advancement. This reinforces the idea that the new method had a meaningful and measurable impact on learning outcomes.

3.3. Discussion

The findings indicate that the experimental group engaged in practicing grammar exercises demonstrated significantly greater improvements in grammar proficiency compared to the control group. This shows that the instructional intervention implemented in the experimental group had

a substantially more positive impact on students' grammar competence than the traditional methods employed in the control group. These results align with previous research on game-based learning, which has been shown to enhance student engagement, motivation, and retention of grammatical structures [13]. Studies have suggested that interactive and gamified learning environments create a more stimulating and participatory experience, leading to higher levels of language acquisition [16]. The improvement observed in the experimental group reinforces these results, suggesting that the Nearpod-based intervention may foster active practising and conceptual understanding more effectively than conventional instruction.

From a theoretical perspective, this research supports with constructivist learning theories that highlight the importance of active student involvement and context-rich learning experiences as essential elements in language learning. The findings indicate that incorporating game-based methods into grammar teaching may enhance the effectiveness of instructional strategies in English as a foreign language settings. On a practical level, these outcomes emphasize the ability of digital platforms to enhance grammar skills, especially for learners who find conventional, rule-focused instruction challenging.

However, it is apparent that this study also has certain limitations. First, the sample size was relatively small, which may affect the generalizability of the findings. Additionally, the study was conducted within a specific educational context, limiting its applicability to other learning environments or student populations. Furthermore, the intervention period was relatively short, and longitudinal studies would be necessary to assess the sustained effects of grammar instruction on Nearpod platform.

Future research should explore the long-term impact of game-based learning on grammar retention, as well as its effectiveness across different language proficiency levels. Furthermore, comparative studies involving other digital learning platforms could provide further insights into the most effective technological tools for grammar instruction.

4. Conclusion

This research aimed to investigate the effectiveness of Nearpod as a tool for enhancing high school students' grammatical competence. By employing a quasi-experimental design with pre-test and post-test assessments, the study compared the learning outcomes of students using Nearpod with those in a traditional learning environment. The results showed a significant improvement in the experimental group's performance, indicating that Nearpod's interactive features contributed to a more engaging and effective learning experience.

The integration of real-time feedback and interactive quizzes within Nearpod was essential in promoting the active practicing of grammar exercises. These results are consistent with previous studies that highlight the advantages of technology-enhanced learning in increasing student involvement and understanding. Nevertheless, it is important to recognize certain limitations. The research was conducted with a small participant group, and students' prior familiarity with digital tools could have influenced the results. Future studies could examine the long-term effects of Nearpod across various student demographics and subject matters to gain a deeper understanding of its influence.

In summary, this research highlights the potential of Nearpod as an effective educational tool that boosts engagement and learning achievements. Educators can utilize its interactive features to cultivate more dynamic and student-focused learning exercises, while researchers can further explore its adaptability across different educational environments. By thoughtfully integrating digital tools into teaching lessons, students can be improved significantly in motivation and learning outcomes.

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