

Evaluation of the effect of digital game applications on “speaking and writing skills in teaching Turkish to Foreigners” course

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Abstract. Digital materials are used as an important tool to teach Turkish more effectively. Since digital materials are more interactive and visual, they help to attract students' attention and help them understand the topics better. The study aims to evaluate the effect of digital game applications on speaking and writing skills in teaching Turkish to foreigners. The main research question of the study has been determined as "Does the use of digital game applications in teaching Turkish to foreigners have an impact on speaking and writing skills?" The study was conducted with a total of 20 students learning Turkish as a foreign language at a private university in TRNC in the fall semester of the 2023-2024 academic year. A mixed-method approach was preferred in the research. The findings obtained from the quantitative and qualitative data of the study revealed that digital games provide significant improvements in speaking and writing skills, especially in foreign language learning. Student opinions also support that this method is motivating and effective in language learning. These results provide important clues on how digital games can be used effectively in language teaching.

1 Introduction

In recent years, the use of technology has been increasing steadily and becoming a necessity. The use of technology encourages students to actively participate in the learning process and increases their motivation to learn. Language learning is considered an essential skill for individuals in order to be able to communicate with different cultures and communities effectively. While traditional language teaching methods are often limited to classroom activities and book-based materials, innovative teaching tools such as digital games have begun to be included into the language learning process with the development of technology. Since they are interactive and motivating, digital games attract the attention of language learners and make the learning process more enjoyable. Using information technologies in education also significantly affects learning [1, 2].

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Digital materials are used as an important tool to teach Turkish more effectively. As language is a means of communication, it facilitates the adaptation to innovative technologies [3].

According to Durmuş, these rapidly developing technological tools should definitely be used in the language teaching process. Since digital materials are more interactive and visual, they help to attract students' attention and help them understand the topics better. Digital educational materials also help students develop their social skills, teamwork skills, and problem-solving abilities. A digital platform is an online or digital environment where digital content is presented, shared, and made accessible. Digital platforms support interaction, content sharing, communication, and information exchange among users. Games have also become indispensable learning tools for contemporary education [4].

The use of digital games in the teaching-learning process makes language learning more fun and makes learning more permanent. In addition to providing entertainment, digital games also develop skills such as learning, problem-solving, and teamwork. Especially the educational games offer the opportunity to teach the course contents more enjoyably and interactively. When integrated into the learning process, well-designed and educational digital games can help students develop their cognitive, affective, linguistic, and social skills. The use of digital games especially for the development of cognitive skills is gaining increasing attention. These games can help students improve cognitive skills such as problem-solving, logic, memory, and attention.

Although the use of digital games in foreign language learning has become increasingly widespread, this study is important in terms of the fact that the effect of these applications on language skills has not been sufficiently researched. The study aims to evaluate the effect of digital game applications on speaking and writing skills in teaching Turkish to foreigners.

The main research question of the study has been determined as "Does the use of digital game applications in teaching Turkish to foreigners have an impact on speaking and writing skills?". The sub-questions are as follows:

- How do digital game applications affect foreign language learners' speaking skills?
- How do digital game applications affect foreign language learners' writing skills?
- How do foreign language learners evaluate digital game applications in terms of Turkish speaking and writing skills?

2 Methodology

In this research, a mixed method was used and both quantitative and qualitative data have been collected. According to Tashakkori and Creswell, mixed-method research is a type of research in which the researcher uses both qualitative and quantitative findings together. It is a research method where the data is collected, analysed, and inferences are made from the results by using both qualitative and quantitative methods. The mixed research method refers to the simultaneous use of qualitative and quantitative research methods in a study and is an emerging research technique [5].

In the quantitative aspect of the research, a pre-test-post-test single-group design has been used. The study was conducted with a total of 20 students, 10 females, and 10 males, learning Turkish as a foreign language at a private university in Northern Cyprus during the fall semester of the 2023–2024 academic year. The pre-test, which was prepared by the researchers by taking expert opinions, was administered to the foreign students at the beginning of the application process and data were kept by the researchers. The digital platforms used during the six-week application included Duolingo, Wordwall, and Kahoot. After 6 weeks of application, the post-test was administered to the relevant students. Based

on this, the effect of digital games on writing and speaking was revealed and the reasons for this were discussed, supported by student opinions. In addition, during the application period, lesson contents suitable for enriching Turkish lessons with digital games were prepared, and pre-test and post-test applications were conducted. Thus, the impact of digital game applications on language skills was quantitatively measured. In addition, at the end of the study, the perception and motivation of the students about the language teaching method supported by digital games were evaluated qualitatively by taking the opinions of the students.

3 Findings

Table 1. Findings related to the participants' pre-test and post-test results on "Speaking".

Speaking		
Participants	Pre-test (%)	Post-test (%)
1. Participant	30	55
2. Participant	25	60
3. Participant	35	55
4. Participant	25	45
5. Participant	40	75
6. Participant	15	40
7. Participant	10	55
8. Participant	15	45
9. Participant	25	65
10. Participant	5	25
11. Participant	30	70
12. Participant	30	75
13. Participant	15	35
14. Participant	40	60
15. Participant	45	60
16. Participant	25	50
17. Participant	50	70
18. Participant	50	65
19. Participant	35	55

20. Participant	55	80
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Based on the findings presented in Table 1, it has been found that the student who scored the lowest score in the pre-test of speaking with 5%, achieved a score of 25% in the post-test which was conducted after six weeks of digital game applications. In addition, the student who scored the highest with 55% in the pre-test showed an increase to 80% in the post-test, which reveals that digital games positively affect the development of language skills.

Table 2. Findings related to the participants' pre-test and post-test results on "Writing".

Writing		
Participants	Pre-test (%)	Post-test (%)
1. Participant	18	34
2. Participant	22	48
3. Participant	26	50
4. Participant	0	28
5. Participant	24	52
6. Participant	15	40
7. Participant	5	35
8. Participant	15	45
9. Participant	12	55
10. Participant	5	28
11. Participant	28	54
12. Participant	22	48
13. Participant	15	42
14. Participant	0	32
15. Participant	25	50
16. Participant	14	52
17. Participant	24	60
18. Participant	35	62
19. Participant	25	55
20. Participant	40	64

Based on the findings presented in Table 2, it has been found out that two students scored zero in the pre-test of writing, while in the post-test which was conducted after six weeks of digital game applications one of them scored 28% and the other scored 32%. Additionally, the student who scored the highest score with 40% on the pre-test increased his/her score to 64% on the post-test, and it reveals that the use of digital games in language teaching has led to significant progress in writing skills.

Participants' views on digital platforms are as follows:

“Digital platforms definitely made it easier for me to learn more words.”

“These applications are both fun and educational.”

“I liked them a lot, they are effective.”

“They are very good, effective.”

“Very good, but I didn't know how to use it; I only applied it in class.”

“It improved my Turkish.”

“It definitely helped me learn a lot and it was fun too.”

“These platforms were very useful for me while learning Turkish.”

“Thanks to these, I had more permanent and quicker learning.”

“Yes, I used it after class as well; it worked.”

“I am not sure because I could not participate much.”

“It's quite effective in creating sentences and learning vocabulary.”

“I thank the teacher for this; I will continue in order not to forget.”

“It definitely worked. Turkish is difficult, and writing is more difficult but thanks to these, I learned the formula for creating sentences.”

“Turkish is very difficult; there are many writing rules. These are helpful but aren't enough alone.”

“These are very educational and nice; thanks.”

“It's fun, especially for learning vocabulary and so that it significantly contributes to writing.”

According to the student views regarding the use of digital game platforms in language teaching, students stated that digital platforms are more effective for writing skills compared to speaking skills. Additionally, these applications have enabled students to achieve lasting and effective learning, improve their vocabulary, and learn the structure of Turkish sentences, contributing to making language teaching more permanent and enjoyable in a short time.

4 Results

This study has critically evaluated the effect of digital game applications on speaking and writing skills in the teaching of Turkish to foreigners. The results of this study are believed to provide valuable insights into the impact of digital game applications on the speaking and writing skills of foreign learners of Turkish. The findings obtained in this research revealed that incorporating digital games into the language learning environments significantly improved the speaking and writing skills of Turkish learners.

As the first result of the study, it can be concluded that using digital games enhanced the participants' speaking skills. Based on the findings, it can be seen that the participants' average pre-test score on speaking skills was 30 whereas their post-test average score increased to 60. The use of digital games led to notable advancements in students' speaking skills. Concerning writing skills, the participants' average score on the pre-test was 18.5 and the post-test average score increased to 46.7. So, digital game applications were found to positively influence the students' writing skills. In addition, the participants' views revealed that digital platforms are highly effective in enhancing their vocabulary and learning language rules.

The participants stated that they were able to write more effectively and express themselves more easily by using these words. Another result of the study revealed that the student's views on the use of digital games in teaching and learning were very positive. They expressed that using digital games was fun and effective for them and they found the digital games very effective in their language learning. They expressed really positive statements about the use of digital games in the language learning process. So, it can be said that integrating digital games into language instruction not only enhances learners' language skills but also promotes a more interactive and enjoyable learning environment.

In a study conducted by Castillo-Cuesta, it was pointed out that digital games lead to noticeable progress in students' writing skills and also increase the motivation of language learners [6]. Sundqvist and Sylvén similarly stated in their study that digital games foster the language abilities of language learners [7]. In addition, it was pointed out in another study by Al-Jamili et al [8]. Using digital games enhances the speaking skills of language learners. Also, Reinders and Wattana highlighted in their study that game-based learning and teaching has many benefits, motivates and encourage language learners, and accelerates language production processes [9].

Eroğlu and Eroğlu also stated in their study that digital platforms help to create a more effective learning experience for language learners and will continue to play an important role in the field of language teaching in the future [10].

As a result of this study, it is suggested that especially in foreign language teaching, there should be a shift away from traditional teaching methods and appropriately targeted and content-rich digital games should be incorporated into lessons. This will make language learning occur more effectively and quickly through modern methods.

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