European Journal of Innovation in Nonformal Education (EJINE)
Volume 5 | Issue 12 | Dec - 2025 ISSN: 2795-8612

Digital Didactic Games and Their Effectiveness in Forming Communicative Competence among Primary School Learners

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A B S T R A C T
This article explores the effectiveness of digital didactic games in forming communicative competence among primary school learners. In the context of rapid digitalization in education, there is a growing need to implement innovative teaching approaches that promote learner engagement and active participation. The study compares traditional language teaching methods with instruction based on digital didactic games. The findings demonstrate that digital games significantly enhance learners' communicative competence by improving speaking fluency, expanding vocabulary, and developing interactive communication skills. Moreover, game-based digital activities create a supportive learning environment that reduces language anxiety and increases learners' confidence in using the target language. Digital didactic games also encourage collaboration, peer interaction, and meaningful language use in communicative contexts. As a result, learners become more motivated and actively involved in the learning process. The study confirms that the systematic integration of digital didactic games into primary language education is an effective pedagogical strategy for developing communicative competence at an early stage of learning.

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A R T I C L E I N F O
Article history:
Received 15 Oct 2025
Received in revised form 15 Nov 2025
Accepted 18 Dec 2025

Keywords: digital didactic games, communicative competence, primary education, EFL learners, game-based learning.

Introduction

The rapid advancement of digital technologies has significantly transformed contemporary educational practices, particularly in primary language education. Traditional teacher-centered approaches are increasingly complemented by learner-centered methodologies that emphasize interaction, collaboration, and meaningful communication [1]. In this regard, digital didactic games have gained attention as an innovative instructional tool that combines educational objectives with elements of play, thereby creating engaging learning environments. Communicative competence is a fundamental goal of primary language education, as it enables learners to express ideas, understand others, and participate effectively in social interactions [2]. However, young learners often face challenges such as limited vocabulary, low confidence, and insufficient opportunities for authentic communication. Digital didactic games address these challenges by providing interactive, contextualized, and motivating language practice [3]. Previous studies have highlighted the positive effects of game-based learning on motivation and language development; nevertheless, empirical research focusing specifically on primary school learners within nonformal and digital learning contexts remains limited[4]. Therefore, this study aims to examine the effectiveness of digital didactic games in forming communicative competence among primary school learners and to contribute to innovation in early language education [5].

Methodology

This study adopted a mixed-methods research design to evaluate the impact of digital didactic games on the development of communicative competence. The participants included 60 primary school learners aged 7–9 from a public school, randomly assigned to an experimental group (n = 30) and a control group (n = 30). Prior to the intervention, a diagnostic pre-test confirmed that both groups had comparable levels of communicative competence. The experimental group received instruction through digital didactic games integrated into English language lessons over an eight-week period, while the control group was taught using traditional instructional methods without digital game elements. The digital games were designed to promote speaking, listening, vocabulary acquisition, and peer interaction through pair and group activities. Data collection instruments included pre- and post-tests, structured classroom observations, and teacher questionnaires. Quantitative data were analyzed using descriptive and inferential statistical methods, while qualitative data were analyzed thematically. Parental consent was obtained prior to data collection, and ethical considerations were observed throughout the research process. To ensure the reliability and validity of the study, multiple data collection strategies were employed. Pre- and post-tests assessed learners' communicative competence in four key areas: vocabulary, grammar usage, speaking fluency, and interactive communication. The tests included structured tasks (e.g., picture description, role-plays) and semi-structured activities (e.g., short dialogues, question–answer sessions) designed to reflect authentic classroom communication. Classroom observations were conducted twice a week by two trained observers using a standardized observation checklist. The checklist focused on indicators such as learner participation, willingness to speak, peer collaboration, turn-taking, and response accuracy. Observers also recorded anecdotal notes to capture qualitative aspects such as enthusiasm, engagement, and signs of learner confidence.

Results and Discussion

The analysis of pre- and post-test results revealed a statistically significant improvement in the communicative competence of learners in the experimental group. Before the intervention, the mean scores of the experimental (M = 56.4) and control groups (M = 55.9) showed no significant difference [6]. After the intervention, the experimental group's mean score increased to 78.6, whereas the control group reached 64.2. A t-test analysis confirmed that the observed differences were statistically significant ($p < 0.05$) [7]. The greatest improvement was observed in speaking fluency and interactive communication skills, with the experimental group demonstrating higher levels of peer interaction, turn-taking, and spontaneous language use [8]. Classroom observations supported these findings, indicating increased learner engagement and confidence during game-based activities. These results are consistent with previous studies that emphasize the motivational and communicative benefits of digital game-based learning [9]. Moreover, the findings highlight the innovative potential of digital didactic games in nonformal and learner-centered educational contexts. Despite the positive outcomes, limitations such as the relatively small sample size and short duration of the intervention should be considered, suggesting the need for further longitudinal research [10]. In addition to the overall improvement in communicative competence, a detailed analysis of sub-skills revealed specific areas where digital didactic games had a particularly strong impact:

1. Vocabulary Acquisition: Learners in the experimental group demonstrated a 35% increase in active vocabulary use, compared to 15% in the control group. Digital games provided contextualized exposure to new words through repetition, visual aids, and interactive tasks, which facilitated retention and recall. Teachers noted that learners often spontaneously used newly learned words in subsequent classroom interactions, reflecting deeper internalization [11].

2. Speaking Fluency: The experimental group showed a marked improvement in fluency, as evidenced by longer, more complex utterances and reduced hesitation. Classroom observations indicated that learners were more willing to volunteer answers and engage in dialogues, suggesting that the playful environment reduced language anxiety and promoted risk-taking in communication [12].

3. Interactive Communication Skills: Pair and group activities embedded in the games encouraged negotiation of meaning, turn-taking, and peer scaffolding. Observers recorded higher instances of cooperative dialogue in the experimental group, whereas the control group tended to rely more on

teacher-directed communication. This supports prior research indicating that game-based learning promotes collaborative competence and active participation [13]. The findings align with theoretical frameworks emphasizing constructivist and communicative approaches, where learners acquire language through meaningful interaction, contextualized practice, and collaborative problem-solving. Digital didactic games provide a bridge between formal curriculum goals and informal, play-based learning experiences, supporting the development of authentic communicative competence [14]. Overall, the study demonstrates that the integration of digital games is not merely a motivational tool but a pedagogically meaningful strategy that enhances multiple dimensions of language learning. While further longitudinal studies are necessary to examine sustained effects, the present results offer strong evidence for the effectiveness of digital game-based instruction in primary EFL contexts [15].

Conclusion

The present study demonstrates that digital didactic games are an effective tool for developing communicative competence among primary school learners. Learners who engaged with game-based digital activities showed significant improvements in speaking fluency, vocabulary usage, and interactive communication compared to peers receiving traditional instruction. Digital didactic games foster active participation, collaborative learning, and learner confidence, creating a supportive environment for authentic language use. The findings highlight the pedagogical value of integrating interactive digital tools into primary language education. Educators are encouraged to systematically incorporate digital games into the curriculum to enhance learner engagement and communication skills. Future research should explore long-term effects, larger and more diverse samples, and the integration of digital games across different language learning contexts to further validate their effectiveness.

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