eISSN: 2229-3213 pISSN: 2229-3205
The Journal of Applied Science and Social Science
Volume 16,Issue 03 March, 2026

USING INTERACTIVE TEACHING METHODS IN SPECIAL EDUCATION

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ABSTRACT

Interactive teaching methods have become an essential component of modern special education because they promote active participation, individualized learning, and improved social interaction among students with diverse learning needs. Traditional teacher-centered instruction often fails to address the cognitive, emotional, and sensory differences of learners with disabilities. Interactive strategies such as collaborative learning, digital tools, role-playing, and problem-based tasks enable students to engage directly with learning materials and peers. Recent studies demonstrate that interactive environments improve academic performance, motivation, and communication skills among students with special educational needs.

Keywords: interactive teaching methods, special education, inclusive education, student engagement, differentiated instruction, digital learning tools, collaborative learning, learning motivation.

Introduction

Special education focuses on providing appropriate educational opportunities for learners who have physical, cognitive, emotional, or developmental differences. These learners require teaching approaches that are flexible, adaptive, and responsive to individual needs. Traditional teaching methods, which are often teacher-centered and lecture-based, frequently fail to meet the diverse learning styles and abilities of students with special educational needs (SEN). As a result, many educators and researchers have emphasized the importance of interactive teaching methods that promote active learning and student participation.

Interactive teaching methods involve instructional approaches in which learners actively engage in the learning process through dialogue, collaboration, problem-solving, and hands-on activities. Unlike passive learning models, interactive instruction encourages students to explore concepts, ask questions, and participate in meaningful discussions. These approaches create opportunities for learners to develop cognitive, social, and emotional skills simultaneously.

In special education contexts, interactive teaching methods are particularly important because students often learn more effectively through multisensory experiences and collaborative activities. Many students with disabilities benefit from visual aids, digital technologies, role-playing activities, and structured peer interaction. These tools help students understand abstract concepts, maintain attention, and build communication skills.

Recent educational research emphasizes that interactive learning environments significantly improve student engagement and academic achievement. Studies show that dialogue-based learning and collaborative classroom practices help learners develop stronger cognitive skills and social competence. Such environments also support inclusion by allowing students with different abilities to learn together and contribute to shared learning activities.

Another important aspect of interactive teaching is the integration of educational technologies. Tools such as interactive whiteboards, tablets, multimedia resources, and educational software can enhance accessibility and support diverse learning styles. These

technologies help create more engaging and inclusive learning environments by adapting content to individual needs.

Furthermore, interactive teaching methods promote motivation and self-confidence among students with disabilities. When learners actively participate in tasks and experience success through collaboration and exploration, they become more confident and motivated to continue learning. Interactive instruction also encourages teachers to act as facilitators rather than sole knowledge providers, creating a supportive and learner-centered classroom environment.

Literature Review

Recent research in educational science highlights the growing importance of interactive teaching methods in improving the quality of special education. Scholars increasingly emphasize that learner-centered approaches are essential for addressing the diverse cognitive and behavioral characteristics of students with special educational needs. Differentiated and interactive instruction allows educators to adapt teaching strategies to the individual learning needs of students and promotes inclusive learning environments (Tomlinson, 2017).

One of the key theoretical foundations of interactive learning is the concept of dialogic and collaborative learning. Research indicates that interactive learning environments encourage collective knowledge construction and social interaction among students. These environments enable learners to exchange ideas, solve problems together, and develop higher-order thinking skills. Dialogic interaction in the classroom supports cognitive development by encouraging learners to articulate their ideas and participate in reflective discussions (Mercer & Howe, 2012). In addition, cooperative learning strategies significantly improve academic performance and interpersonal relationships among students (Johnson & Johnson, 2019).

Another important area of research focuses on the role of educational technology in interactive learning. Modern technologies such as digital applications, assistive devices, and augmented reality tools have become valuable instruments in special education. These tools allow teachers to present information in multiple formats, making learning more accessible for students with different sensory and cognitive abilities. Technology-supported instruction also enables the implementation of the Universal Design for Learning (UDL) framework, which promotes accessibility through multiple modes of representation and engagement (Rose & Meyer, 2014). For example, screen readers, Braille devices, and multimedia resources help students with visual impairments or learning disabilities access educational materials more effectively.

Research also demonstrates the effectiveness of interactive teaching aids in improving the learning outcomes of students with autism spectrum disorder (ASD). Multimedia tools and interactive digital platforms help improve attention, engagement, and communication skills among students with ASD (Odom et al., 2015). Digital storytelling, multimedia presentations, and interactive whiteboards are particularly useful because they support visual and kinesthetic learning styles while promoting structured interaction within the learning environment.

Gamification and game-based learning have also gained significant attention in recent years. Gamified learning environments use elements such as points, rewards, and challenges to motivate students and sustain engagement. Gamification introduces motivational game mechanics into educational contexts, which can increase students' interest in learning activities (Deterding et al., 2011). Studies also show that game-based learning improves attention, task completion, and motivation among neurodiverse learners (Hamari et al., 2014).

Another important strand of literature examines the impact of interactive teaching on student motivation and deep learning. Interactive learning encourages intrinsic motivation by allowing students to actively participate in discussions, collaborative projects, and problem-solving activities. Active engagement and collaborative learning environments have been shown to significantly influence student achievement and knowledge retention (Hattie, 2009).

Despite the advantages of interactive teaching methods, several challenges remain. Teachers often lack sufficient training in implementing interactive strategies effectively. In addition,

schools may face limitations related to technological resources and classroom infrastructure. Therefore, researchers emphasize the importance of professional development programs that help teachers integrate innovative teaching strategies and digital tools into their instructional practice (Darling-Hammond et al., 2020).

Several interactive teaching strategies were identified in the literature. One of the most widely used approaches is cooperative learning, where students work together in small groups to solve problems or complete tasks. This method encourages communication and peer support, allowing students with different abilities to contribute according to their strengths. In special education settings, cooperative learning can help students develop social skills and build confidence.

Another important strategy is the use of visual and multimedia learning materials. Many students with special educational needs process information more effectively through visual or auditory channels rather than traditional text-based instruction. Multimedia presentations, videos, and interactive simulations can help simplify complex concepts and make learning more engaging.

Role-playing and scenario-based learning are also effective interactive methods. These strategies allow students to practice real-life situations in a structured environment. For example, role-playing activities can help students with communication difficulties practice social interactions, develop language skills, and understand appropriate behavioral responses.

Technology-based interactive learning tools also play a crucial role in modern special education. Digital learning platforms, interactive applications, and educational games enable personalized learning experiences. These tools allow teachers to adjust difficulty levels, provide immediate feedback, and monitor student progress.

The discussion of the research findings indicates that interactive teaching methods significantly enhance student engagement and participation. Students who actively participate in learning activities demonstrate higher levels of motivation and better retention of information compared to those who experience passive instruction.

Furthermore, interactive teaching promotes social inclusion by encouraging collaboration between students with and without disabilities. Inclusive classrooms that utilize interactive methods create opportunities for mutual understanding, empathy, and peer learning.

However, successful implementation requires careful planning and teacher preparation. Teachers must consider students' individual needs, learning styles, and emotional characteristics when selecting interactive teaching strategies. Adequate training and access to educational technologies are also essential for maximizing the effectiveness of these approaches.

To enhance the effectiveness of interactive teaching methods in special education, several practical recommendations can be proposed.

First, teachers should receive professional training in interactive and inclusive teaching strategies. Workshops and professional development programs can help educators learn how to design student-centered activities and integrate digital tools effectively.

Second, schools should invest in modern educational technologies that support interactive learning. Tools such as interactive whiteboards, tablets, assistive devices, and multimedia resources can significantly improve accessibility and engagement for students with special needs.

Third, teachers should adopt differentiated instruction to address the diverse abilities of students. Interactive activities should be flexible and adaptable, allowing students to participate at their own level of competence.

Fourth, collaboration between teachers, parents, and specialists such as psychologists or speech therapists should be strengthened. This cooperation ensures that teaching strategies are aligned with students' individual educational plans.

Finally, educators should create supportive classroom environments that encourage participation, creativity, and peer interaction. When students feel safe and respected, they are more willing to engage actively in learning activities.

Conclusion

Interactive teaching methods represent a powerful approach to improving the quality of special education. Unlike traditional teacher-centered instruction, interactive strategies promote active participation, collaboration, and individualized learning. These methods allow students with special educational needs to engage more deeply with educational content and develop important cognitive, social, and emotional skills.

The analysis of recent research confirms that interactive learning environments significantly enhance student engagement, academic achievement, and motivation. Technologies such as multimedia tools, assistive devices, and digital applications further support accessibility and inclusive learning. Additionally, interactive strategies such as cooperative learning, role-playing, and gamification help students develop communication skills and confidence.

Despite these benefits, effective implementation requires well-trained teachers and adequate technological resources. Schools and educational institutions must provide professional development opportunities and invest in modern learning technologies to support interactive teaching practices.

Overall, integrating interactive teaching methods into special education contributes to the development of inclusive and learner-centered educational environments. By adopting innovative instructional strategies, educators can better address the diverse needs of students and ensure that every learner has the opportunity to achieve academic and personal success.

References:

1. Fernández-Villardón, A., García-Carrión, R., & Villarejo-Carballido, B. (2020). Interactive learning environments and student achievement. *Frontiers in Psychology.*

2. Layachi, A., et al. (2025). Formative evaluation of an interactive personalised learning technology for students with special educational needs. *Education and Information Technologies.*

3. Navas-Bonilla, C. R., et al. (2025). Inclusive education through technology: A systematic review. *Frontiers in Education.*

4. Samatova, A. (2025). The use of interactive teaching aids by special education teachers in teaching science to students with autism spectrum disorder. *Central European Journal of Educational Research.*