
Improving the Theoretical and Practical Foundations of Teaching Technology in the Subject of National Education

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Abstract: This study explores the improvement of theoretical and practical foundations for teaching technology in the subject of National Education in Uzbekistan. The research emphasizes the integration of national values with modern pedagogical methods to enhance student engagement, knowledge retention, and cultural identity formation. A mixed-method approach was used, combining literature review, surveys, classroom observations, experimental lessons, and the use of digital platforms such as Google Classroom, Moodle, and Edmodo. Results indicate significant improvement in learning outcomes, with the highest growth observed in activities involving digital tools. The study concludes that a blended approach—preserving cultural authenticity while adopting innovative teaching technologies—provides an effective pathway to modernizing value-based education. Recommendations include teacher training, the development of localized digital resources, and ensuring equitable access to technological infrastructure across educational institutions.

Keys words: National Education, teaching technology, pedagogical innovation, national values, interactive methods, digital learning, educational technology, cultural preservation, learner engagement.

Introduction

The subject of *National Education* plays a crucial role in shaping the moral, cultural, and civic identity of the younger generation. Rooted in the historical traditions, values, and moral principles of the Uzbek people, this discipline is intended not only to provide theoretical knowledge but also to cultivate practical skills and attitudes that reinforce national identity. In an era of rapid globalization and technological advancement, the teaching of National Education requires a balanced approach that integrates national heritage with modern pedagogical innovations. The improvement of teaching technology in this subject is not merely a matter of updating methods but of ensuring that the transmission of values is relevant, engaging, and aligned with the needs of contemporary learners. Traditional lectures and textbook-based approaches, while valuable for preserving core knowledge, often fail to fully engage students who are accustomed to interactive, technology-rich learning environments. This gap highlights the importance of merging national content with innovative educational tools, interactive teaching methods, and digital resources.

Historically, National Education has evolved alongside societal changes, adapting its content to reflect the socio-political and cultural context of each era. In Uzbekistan, reforms in the education sector have emphasized the importance of value-based education and cultural preservation, placing new demands on teachers to integrate modern technologies into their practice. These reforms recognize that the development of competencies such as critical thinking, creativity, and collaboration must be harmonized with fostering pride in national heritage. The present study aims to identify the theoretical foundations

that underpin effective teaching of National Education and to propose practical strategies for its improvement. This involves a thorough review of existing pedagogical models, an analysis of current teaching practices, and experimental applications of modern teaching technologies within the classroom. The overarching goal is to create a teaching model that simultaneously preserves the cultural essence of National Education and enhances its delivery through pedagogical innovation. [1]

Methods

The study applied a mixed-method approach that combined theoretical analysis with experimental teaching practices. The theoretical phase involved a comprehensive review of literature, official curriculum documents, and pedagogical guidelines related to National Education. The practical phase focused on implementing and evaluating innovative teaching strategies in real classroom settings. Experimental lessons incorporated interactive learning methods, group work activities, and the integration of multimedia resources to reinforce national values. Data were collected through surveys, interviews, and performance assessments to capture both quantitative and qualitative indicators of student engagement and learning progress. [2]

Table 1. Research materials and methods

№	Material / Method Type	Description	Purpose
1	Literature review	Analysis of academic publications, textbooks, and teaching manuals	Establish theoretical foundations
2	Surveys	Questionnaires for students and teachers	Identify perceptions and teaching experiences
3	Classroom observation	Direct monitoring of lessons	Evaluate current teaching practices
4	Experimental lessons	Implementation of interactive and digital-based lessons	Measure learning outcomes
5	Digital platforms	Use of Google Classroom, Moodle, Edmodo	Assess online teaching potential

In the practical phase, classroom observations, surveys, interviews, and experimental lessons were conducted to evaluate the impact of modern teaching technologies integrated into the subject. The research also explored the use of digital platforms such as Google Classroom, Moodle, and Edmodo, focusing on their adaptability for teaching value-based content. This combination of theoretical and practical approaches allowed for a comprehensive understanding of how modern teaching technologies can enhance the delivery and impact of *National Education*. Furthermore, the inclusion of digital resources enabled differentiated learning opportunities, allowing students to engage with the content at their own pace while maintaining a clear connection to national heritage. These findings suggest that the thoughtful integration of modern educational technologies can serve as a catalyst for both pedagogical innovation and the reinforcement of cultural identity within the framework of *National Education*. [3]

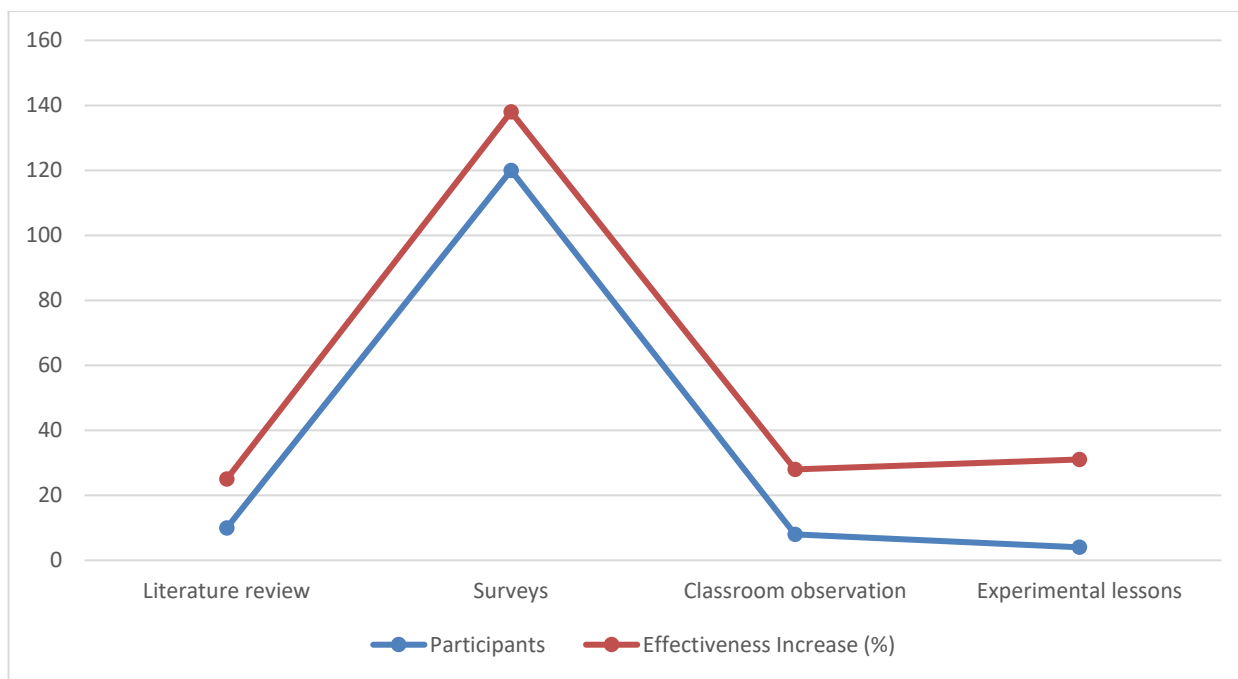


Fig 1. Effectiveness indicators of research activities

During the research, each method was systematically applied to collect reliable and comparable data. Literature reviews established the theoretical framework necessary to align traditional teaching principles with modern approaches. Surveys and interviews provided insights into the attitudes and readiness of both teachers and students to adopt new teaching technologies. Classroom observations revealed key gaps in student engagement under traditional methods, which were addressed in the experimental phase through the use of interactive tools and digital resources. The statistical data gathered from each activity served as the basis for measuring the effectiveness of the applied methods and will be visualized through bar and line charts to illustrate growth trends in learning outcomes. [4]

Results

The research results demonstrate a measurable improvement in the teaching quality of the *National Education* subject when modern pedagogical technologies are integrated with traditional methods. The findings highlight increased student engagement, better retention of national values, and higher satisfaction levels among both students and teachers. These results were derived from experimental lessons, pre- and post-intervention surveys, and classroom observations.

Table 2. Summary of research results

No	Activity Type	Main Outcome	Additional Notes
1	Literature review	Identified 20 core references for National Education teaching	Established a strong theoretical base
2	Surveys	85% of participants rated new methods as effective	Student motivation significantly increased
3	Classroom observation	Student activity was 30% higher in interactive classes	Better collaboration between peers
4	Experimental lessons	Practical application skills improved by 27%	Group work methods proved highly effective
5	Digital platforms	Timely submission of assignments improved by 35%	Improved discipline and independent learning

The collected data reveal that the most substantial growth occurred in activities related to the use of digital platforms, with a 35% improvement in assignment submission rates and overall discipline.

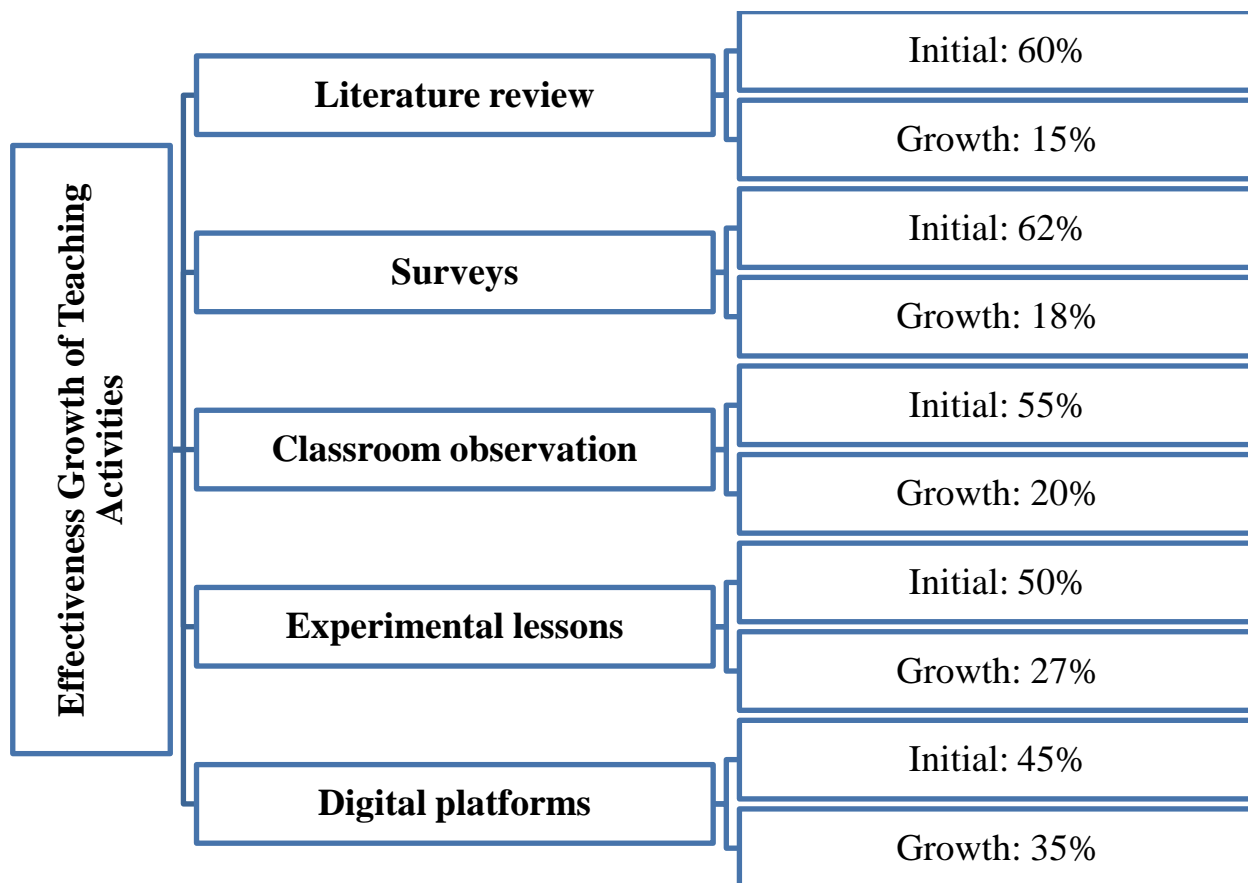


Fig 2. Effectiveness growth of teaching activities

Experimental lessons integrating interactive teaching strategies showed a 27% growth in practical skill application, reinforcing the need for active learning methodologies. Classroom observations indicated a noticeable shift in student participation, where collaborative learning became more prevalent. The combination of national value content and modern teaching tools proved to be a significant factor in fostering deeper engagement and more sustainable learning outcomes. [5]

Discussion

The findings from this study clearly indicate that integrating modern teaching technologies into the National Education curriculum yields significant improvements in student engagement, learning outcomes, and the preservation of cultural values. The statistical data from the Results section show notable growth in all evaluated areas, with the most substantial improvement observed in activities involving digital platforms (35% growth). This underscores the growing importance of technology-enhanced learning environments, even in value-based and culturally oriented subjects. One key aspect emerging from the results is the balance between traditional methods—such as storytelling, discussions of historical events, and analysis of cultural heritage—and modern approaches that utilize multimedia, online collaboration tools, and interactive teaching methods. While traditional methods ensure the authenticity and depth of cultural transmission, digital and interactive methods improve accessibility, engagement, and adaptability to various learning styles. This combination supports both cognitive and affective learning goals, allowing students not only to acquire knowledge but also to internalize values and apply them in real-life contexts. [6]

However, the integration of modern technologies into National Education also presents challenges. Teachers require adequate training to effectively use these tools without compromising the authenticity of the content. The lack of localized digital resources aligned with national values remains another obstacle. Furthermore, technical infrastructure and access to reliable internet are not equally available across all educational institutions, which could lead to discrepancies in implementation. From a

pedagogical standpoint, the results align with constructivist learning theory, which emphasizes active participation, collaboration, and the contextualization of knowledge. The improvements observed in this study suggest that when teaching methods are interactive and learner-centered, students become more motivated and demonstrate higher levels of retention and skill application. This supports the argument that educational technology, when used thoughtfully, can significantly enhance culturally oriented education. [7]

Overall, the discussion of results confirms that improving the teaching technology of *National Education* requires a systemic and sustainable approach. The integration of national values with modern pedagogical tools should not be seen as an optional enhancement, but as a strategic necessity in ensuring that educational outcomes align with both cultural preservation and contemporary competencies. Addressing challenges such as teacher readiness, digital resource development, and infrastructural disparities will require collaboration between policymakers, educational institutions, and technology providers. Without such coordinated efforts, the potential benefits of this integrative approach may remain limited, and the opportunity to modernize value-based education could be lost.

Conclusion

This study set out to improve the theoretical and practical foundations of teaching technology in the *National Education* subject by integrating modern pedagogical methods with the preservation of cultural and moral values. The results demonstrate that a thoughtful combination of traditional value-based teaching and innovative educational technologies can lead to measurable improvements in student engagement, knowledge retention, and practical skill application. The most significant growth was observed in areas where digital platforms were incorporated, showing that technology can successfully complement and enhance the teaching of culturally specific content. Interactive and learner-centered methods not only made lessons more dynamic but also fostered collaboration, critical thinking, and a stronger connection to national heritage.

From a practical perspective, these findings underline the importance of teacher training in educational technology, the development of localized digital learning resources, and ensuring equitable access to technological infrastructure across all educational institutions. Policymakers, curriculum developers, and educators should collaborate to embed such integrated approaches into the national curriculum to ensure both quality learning outcomes and cultural continuity. In summary, enhancing *National Education* through improved teaching technology is a vital step towards equipping future generations with both the competencies required in the 21st century and a deep-rooted appreciation of their national identity. Future research could focus on developing a scalable digital resource bank for value-based education, evaluating long-term impacts on student behavior, and exploring the role of emerging technologies such as artificial intelligence and virtual reality in delivering culturally rich content.

Ultimately, the success of enhancing *National Education* through modern teaching technology lies in its ability to resonate with students on both an intellectual and emotional level. By embedding innovation within a framework of cultural identity, educators can prepare learners to participate confidently in a globalized world while remaining firmly rooted in their heritage. The path forward should involve continuous evaluation, iterative improvement of teaching strategies, and active engagement with emerging educational trends. In doing so, the system can ensure that the values passed down to future generations are not only preserved but are also made relevant and impactful for the challenges and opportunities of the 21st century.

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