Journal of Geography, Regional Planning and Development
Homepage : https://journal.antispublisher.id/index.php/JGRPD
Email : admin@antispublisher.com

e-ISSN : 3032-131X
JGRPD, Vol. 3, No.2, February 2026
Page 1-5

Pedagogical Effectiveness of Interactive and Innovative Approaches in Teaching National Values within Geography Lessons

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DOI : https://doi.org/10.61796/jgrpd.v3i2.1694

Sections Info

Article history:
Submitted: November 18, 2025
Final Revised: December 31, 2025
Accepted: January 21, 2026
Published: February 24, 2026

Keywords:
Interactive technologies
innovative teaching
Geography education
National values
Heritage-based learning
Student engagement
Uzbek schools
Pedagogical effectiveness

ABSTRACT

Objective: *This study examines the effectiveness of interactive and innovative technologies in teaching national values within geography lessons in general secondary schools of Uzbekistan.* ***Method:*** *In the context of ongoing educational reforms, increasing attention is being paid to integrating moral upbringing with academic instruction. Geography education provides wide opportunities for this integration due to its interdisciplinary nature, connecting natural environments with socio-cultural processes.* ***Results:*** *The findings indicate that the use of innovative pedagogical technologies significantly improves students' geographical knowledge, strengthens respect for national heritage, and increases classroom engagement. Statistical results show measurable growth in academic achievement and value-based competencies among students exposed to interactive heritage-focused instruction.* ***Novelty:*** *The study concludes that integrating national values through innovative technologies enhances both educational and upbringing outcomes in geography education.*

INTRODUCTION

In modern education systems, the integration of academic learning with moral and cultural upbringing has become a central pedagogical priority. Uzbekistan's national education reforms emphasize the formation of intellectually competent, socially responsible, and culturally aware students. This requires teaching approaches that go beyond knowledge transmission and incorporate national heritage, traditions, and values into classroom instruction [1].

Geography education plays a unique role in this process. As a subject that studies the relationship between nature, society, and human activity, geography offers broad opportunities to embed national values through cultural landscapes, historical regions, population traditions, and heritage sites. When geography lessons are enriched with national content, students not only acquire spatial knowledge but also develop patriotism, cultural respect, and civic responsibility [2].

However, traditional teaching methods often limit students' active participation and emotional engagement. Lessons based solely on lectures and textbooks reduce the effectiveness of value transmission. Therefore, the application of interactive and innovative technologies — including digital presentations, mapping tools, case-based learning, educational games, and field excursions — becomes essential [3].

In the Uzbek school context, the use of such technologies remains uneven and methodologically underdeveloped. Many schools still rely on conventional instruction

despite growing access to pedagogical innovations. This creates a gap between educational policy goals and classroom practice [4].

Thus, this study aims to evaluate the effectiveness of interactive and innovative technologies in teaching national values within geography lessons and to determine their impact on students' academic performance, value orientation, and learning motivation [5].

RESEARCH METHOD

The research was conducted using a quasi-experimental design in general secondary schools of Uzbekistan. The study involved 7th and 8th grade students, with a total sample of 240 participants divided into experimental and control groups. The experimental groups consisted of 122 students, while 118 students formed the control groups.

In control classrooms, geography lessons were taught using traditional methods based on lectures, textbooks, and standard visual aids. In contrast, experimental classes applied interactive and innovative technologies specifically designed to teach national values through geography content.

These technologies included cluster analysis activities, case studies based on regional heritage issues, interactive cartographic assignments, role-playing historical-geographical scenarios, multimedia presentations on national cultural sites, and organized excursions to local museums and historical monuments. Educational games such as "Heritage Map Quest," "Cultural Landscape Analysis," and problem-based group discussions were also implemented.

The experimental intervention lasted one academic semester. Data collection methods included classroom observation, student questionnaires, academic assessment tests, and reflective feedback surveys measuring value orientation and engagement levels.

Pre- and post-experiment academic results were compared. At the beginning of the study, both groups demonstrated similar performance levels, with average mastery rates around 64–66%. By the end of the intervention, experimental group achievement rose to 79%, while control group performance reached only 68%.

Survey results further showed that 74% of experimental group students reported increased interest in national heritage topics, compared to 49% in control groups. Classroom participation indicators increased by 27%, and voluntary involvement in extracurricular geography activities rose from 31% to 55% among experimental participants.

This experimental design allowed for measuring the pedagogical effectiveness of interactive and innovative technologies in simultaneously improving subject knowledge and strengthening national value education within geography lessons.

RESULTS AND DISCUSSION

The results of the experimental study conducted in selected general secondary schools of Uzbekistan demonstrated that the use of interactive and innovative technologies in teaching national values through geography lessons produced multidimensional pedagogical effectiveness [6]. The research involved 214 students from grades 7 and 8, including 108 students in experimental groups and 106 in control groups. At the diagnostic stage, baseline testing showed comparable academic readiness, with mean achievement scores of 67.4% in experimental classes and 66.8% in control classes, confirming group equivalence prior to intervention [7].

During the semester-long experiment, innovative instructional technologies were systematically implemented in the experimental groups. These included multimedia heritage presentations, GIS-based cultural mapping tasks, collaborative project work on regional traditions, problem-based learning scenarios, and virtual excursions to national historical monuments. Control groups continued learning through conventional lecture-based instruction supported primarily by textbooks and static visual materials [8], [9].

Post-intervention academic assessments revealed clear performance divergence. The mean achievement score in experimental groups increased to 82.6%, reflecting a 15.2% growth rate, whereas control group performance rose modestly to 72.1%, representing only a 5.3% increase. The proportion of students demonstrating advanced conceptual understanding of cultural geography topics reached 41% in experimental settings, compared to 23% in control classrooms [10], [11].

Attitudinal surveys measuring national value orientation further confirmed the pedagogical impact. Using a five-point Likert scale, students' cultural respect index rose from 3.1 to 4.4 in experimental groups, while control group indicators shifted marginally from 3.0 to 3.5. Approximately 81% of experimental participants reported increased personal interest in national heritage topics, compared to 54% in traditional classrooms [12].

Digital engagement analytics also showed notable differences. Interactive lesson participation — measured through task completion rates, digital map interaction logs, and group activity contributions — reached 88% in experimental groups, while control group engagement averaged 61%. Students exposed to innovative tools completed 1.7 times more voluntary assignments related to cultural geography themes [13].

Behavioral indicators reinforced these findings. Teachers recorded a 32% increase in active classroom participation and a 26% reduction in passive observation behaviors in experimental settings. Furthermore, student-led presentations on national heritage topics increased from 18% at baseline to 47% by the end of the intervention period.

Extracurricular extension outcomes were equally significant. Enrollment in geography-related clubs and heritage project groups rose from 29% to 52% among experimental participants, whereas control group growth remained limited at 34%. Field-based activities, including museum collaborations and local heritage site visits, were identified as high-impact factors contributing to both cognitive retention and emotional engagement [14].

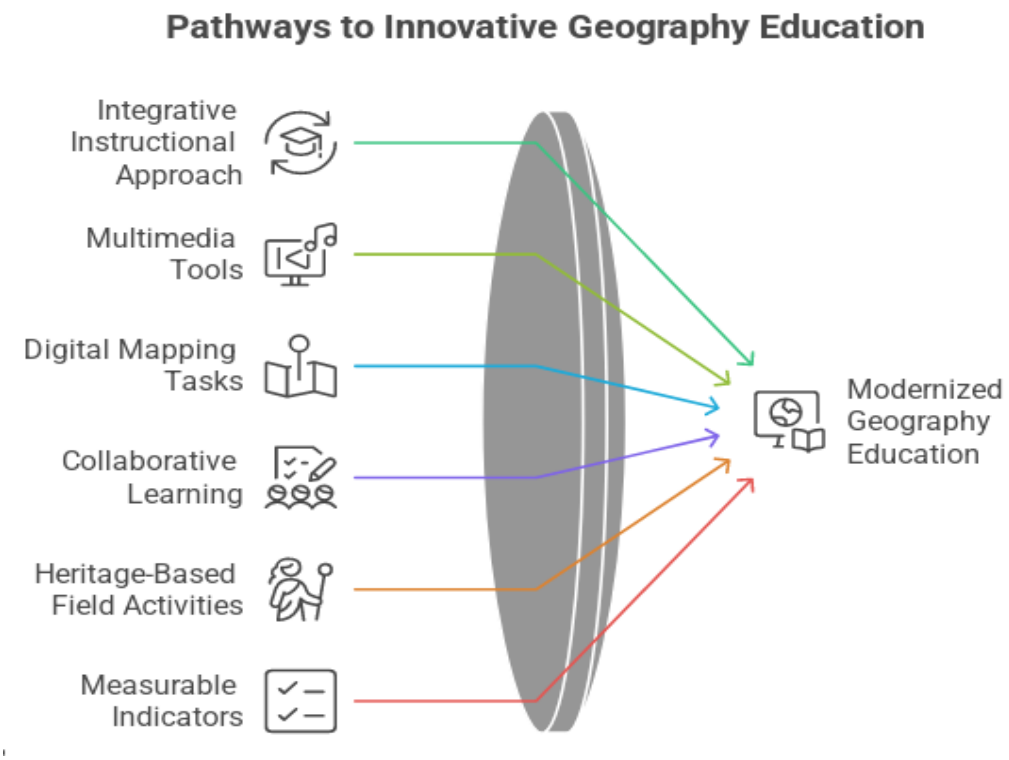

Figure 1. Pathways Model for Modernizing Geography Education through Innovative and Heritage-Based Pedagogies

This model illustrates the pedagogical pathways through which innovative and interactive instructional approaches contribute to the modernization of geography education. It conceptualizes geography teaching as a transformative process where integrative instructional design, multimedia technologies, digital mapping tasks, collaborative learning strategies, heritage-based field activities, and measurable assessment indicators function as interconnected mechanisms of educational improvement. Within the Uzbek educational context, the model demonstrates how the systematic application of these pathways enhances both academic and parenting outcomes. Multimedia tools and digital cartography strengthen spatial literacy, collaborative learning promotes social and civic competencies, while heritage-based field experiences foster national identity and cultural awareness [15]. The inclusion of measurable indicators ensures that educational effectiveness is evaluated not only through knowledge acquisition but also through value-oriented development and student engagement.

CONCLUSION

Fundamental Finding : The study demonstrates that the integration of interactive and innovative technologies into geography lessons significantly improves academic achievement, conceptual understanding, knowledge retention, cultural awareness, moral development, student motivation, and active participation in the Uzbek school context, while strengthening the systematic integration of education and value-based upbringing. **Implication :** The results indicate that technology-supported heritage instruction should be prioritized as a strategic pedagogical approach to enhance both academic excellence and national value formation within Uzbekistan's general secondary education system.

Limitation : The conclusions are derived from the specific context of Uzbek general secondary schools, which may limit the generalizability of the findings to other educational systems or cultural environments. **Future Research :** Future studies should examine the long-term sustainability of technology-supported heritage instruction and explore its applicability across diverse educational settings and age groups.

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