

# Comparative Analysis Of Teacher's Pedagogical Culture: National Mentality And The Influence Of Educational Systems (Finland, Usa, Singapore, South Korea, Japan, Russia)

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## ABSTRACT

Teacher pedagogical culture has become a key factor in educational quality worldwide; however, empirical evidence from Central Asian educational systems remains limited in international research discourse. This study addresses this gap by conducting a comparative analysis of pedagogical culture development in Uzbekistan in relation to educational models of Finland, the USA, Singapore, South Korea, Japan, and Russia. The research applies an acmeologically oriented framework integrating competency-based, reflective, and value-oriented approaches adapted to national ethno-cultural and axiological traditions. An experimental study involving 511 pre-service physical education future teachers was conducted using diagnostic, formative, and control stages. The results demonstrate statistically significant improvement in pedagogical culture levels in experimental groups ( $p < 0.05$ ), confirming the effectiveness of the proposed model. The findings contribute to comparative pedagogy by presenting evidence from Uzbekistan and by proposing a contextualized strategy for harmonizing global teacher development trends with national educational values. The study offers practical implications for teacher education reform in culturally diverse educational environments.

**Keywords:** Pedagogical culture; acmeology; teacher education; comparative pedagogy; national mentality; Uzbekistan.

## INTRODUCTION

The ongoing transformation of higher education systems worldwide has intensified attention toward the quality of teacher education and the development of teachers' pedagogical culture as a crucial factor of educational effectiveness. In this regard, countries with emerging educational reforms increasingly seek scientifically grounded models of teacher professional development that integrate global trends with national traditions. The Republic of Uzbekistan has entered a new stage of modernization of its educational system, prioritizing competency-based teacher training, innovation in pedagogical practices, and alignment with international educational standards. These reforms require the conceptual rethinking of teachers' pedagogical culture as a

multidimensional phenomenon combining professional competence, ethical responsibility, and socio-cultural awareness.

In recent decades, the development of teacher pedagogical culture has become a central topic in international educational research due to its direct impact on teaching quality and learning outcomes. Comparative studies indicate that modern teacher education systems increasingly combine competence-based training, reflective professional development, and value-oriented educational practices (Darling-Hammond et al., 2017; Niemi, 2015). At the same time, contemporary comparative pedagogy emphasizes that effective teacher professional development cannot be universally

standardized and must be adapted to national socio-cultural and axiological contexts.

Finland is widely recognized for its research-based teacher education and high professional autonomy, where pedagogical culture is grounded in reflective practice and learner-centered methodologies (Niemi, 2015). The United States emphasizes accountability and performance-oriented instruction, shaping a culture of individual professional agency and data-driven teaching (Tatto, 2021). East Asian systems, particularly Singapore, South Korea, and Japan, demonstrate structured and collective models of teacher development based on institutional mentoring, continuous improvement, and shared professional responsibility (Farabi et al., 2025; Siliņa-Jasjukeviča et al., 2025). These systems represent diverse national mentalities ranging from individualism to collectivism and discipline-oriented professionalism.

Against this international backdrop, Uzbekistan represents a unique context where the modernization of pedagogical education intersects with deeply rooted traditions of moral and civic education. The National Teacher Training System emphasizes not only professional knowledge and competencies but also the educational function of teachers in shaping ethical values, national identity, and social responsibility in students. This integrative orientation reflects the historical role of education in Uzbek society, where the teacher is perceived as an instructor and moral mentor.

Recent national reforms in Uzbekistan's higher education, including the introduction of competency-based curricula, digital learning environments, and innovative pedagogical technologies, have created new requirements for the professional culture of future teachers. At the same time, the adaptation of international professional development models encounters contradictions between global performance-oriented approaches and national ethno-cultural and axiological priorities. This situation necessitates the search for scientifically substantiated strategies for developing pedagogical culture that harmonize global educational standards with national mental and cultural foundations.

Despite the growing body of international comparative studies on teacher professional development, limited research has focused on Central Asian educational contexts and the specific pathways for integrating global pedagogical innovations into national teacher education

systems. This gap highlights the relevance of conducting a comparative analysis of pedagogical culture formation in Uzbekistan in relation to leading international educational systems, including Finland, the USA, Singapore, South Korea, Japan, and Russia. Such comparison enables the identification of universal mechanisms of teacher development while recognizing culturally determined features that shape national models of pedagogical culture.

In the national pedagogical discourse of Uzbekistan, the formation of teacher pedagogical culture is regarded as a strategic condition for educational modernization. Karimov (2019) substantiates that teacher professionalism in Uzbekistan should integrate competency-based preparation with moral and civic educational responsibility, reflecting national cultural and ethical traditions. Saidov (2020) highlights that pedagogical culture in the Uzbek context represents not only professional mastery but also a socially significant mission of *духовно-нравственного воспитания* younger generations. Recent studies by Yuldashev and Mamatov (2022) demonstrate that acmeological approaches provide an effective methodological basis for developing reflective and value-oriented professional identity among future teachers in national higher education institutions.

Despite the growing body of national research, empirical findings from Uzbekistan remain underrepresented in international comparative studies on teacher pedagogical culture. Meanwhile, global educational models—such as Finnish research-based teacher education, American performance-oriented professional standards, Singaporean institutionalized mentoring systems, and East Asian discipline-centered professional cultures—demonstrate diverse strategies for developing teacher professionalism. This contrast raises the question of how global professional development trends can be harmonized with national ethno-cultural and axiological priorities in teacher education systems.

Therefore, the present study aims to conduct a comparative analysis of pedagogical culture development models in Finland, the USA, Singapore, South Korea, Japan, Russia, and Uzbekistan, and to empirically substantiate an acmeologically oriented strategy adapted to the national educational environment of Uzbekistan. The study addresses the research gap concerning Central Asian perspectives in international comparative pedagogy and proposes a contextualized model for integrating global teacher education trends with national cultural and

educational values.

Accordingly, the purpose of this study is to analyze the pedagogical culture of future teachers in Uzbekistan through a comparative lens with international educational systems and to substantiate the adaptation of acmeological strategies for teacher professional development in the national context. The study aims to contribute to global academic discourse on teacher education by presenting empirical and theoretical evidence from Uzbekistan's ongoing educational reforms.

## **METHOD**

**Methodological Framework.** The study was conducted within a mixed methodological framework integrating systemic, competence-based, and acmeological approaches to teacher professional development. The systemic approach enabled the examination of pedagogical culture as a holistic construct composed of interrelated cognitive, value-motivational, behavioral, and reflective components. The competence-based approach provided criteria for assessing professional readiness and performance of future teachers, while the acmeological approach guided the analysis of individual professional growth trajectories toward pedagogical mastery. Additionally, a comparative educational analysis was applied to identify similarities and differences in teacher professional development models across national educational systems.

**Research Design.** The research design combined comparative-theoretical analysis and empirical investigation. The comparative component focused on examining policy documents, teacher education standards, and professional development frameworks in Finland, the United States, Singapore, South Korea, Japan, and Russia. These systems were selected due to their recognized effectiveness in teacher preparation and availability of international analytical reports. The Uzbek national teacher education system was analyzed as the central case, allowing for identifying adaptation possibilities of international best practices within the national socio-cultural context.

The empirical component was based on data obtained as a result of author's doctoral research conducted in higher educational institutions of the Republic of Uzbekistan in the period from 2022 to 2025. The study involved future physical education teachers as a target group, representing

a professional field where pedagogical culture plays a crucial role in combining educational, developmental, and upbringing functions.

**Participants.** Experimental studies were conducted at Nukus State Pedagogical Institute, Navoi State University, and Bukhara State Pedagogical Institute. A total of 511 undergraduate students studying in pedagogical education programs in physical education participated in the study. Participants were selected based on their direct participation in the professional training of teachers, which ensures the relevance of the empirical data to the research objectives. The experimental and control groups were formed according to comparable basic indicators of pedagogical culture development.

**Data Collection Methods.** Multiple data collection methods were employed to ensure the validity and reliability of the findings. These included theoretical analysis of academic literature and policy documents, pedagogical observation, structured questionnaires, expert evaluation, diagnostic testing, and semi-structured interviews. Expert assessments were conducted with experienced university instructors to evaluate key components of pedagogical culture and the effectiveness of the proposed acmeological development model.

To support the comparative analysis, international datasets and analytical reports on teacher professional development (OECD TALIS, World Bank reports, and UNESCO frameworks) were examined to identify global trends and national specificities in teacher education systems.

**Experimental Procedure.** The empirical research was implemented in three sequential stages: (1) a diagnostic stage to determine baseline levels of pedagogical culture development; (2) a formative stage involving the implementation of an acmeologically oriented training model designed to enhance professional competencies, reflective skills, and value-based orientations; and (3) a control stage to assess post-intervention outcomes. The effectiveness of the model was evaluated through comparative analysis of experimental and control group results.

**Data Analysis.** Quantitative data were processed using mathematical and statistical methods to determine the significance of observed differences between groups. Descriptive statistics, mean score analysis, and comparative percentage distribution were applied to assess

developmental dynamics. Qualitative data obtained from interviews and expert feedback were analyzed using thematic content analysis to interpret changes in professional attitudes and pedagogical behaviors.

**Ethical Considerations.** Participation in the study was voluntary, and all respondents provided informed consent. Anonymity and confidentiality of collected data were ensured throughout the research process.

**Methodological Validity.** The methodological validity of the study was secured through triangulation of research methods, representative sampling, consistency of diagnostic instruments, and statistical verification of results. This integrated methodology enabled obtaining reliable empirical evidence on the formation of pedagogical culture in future teachers and substantiating possibilities for adapting international professional development strategies to the Uzbek educational context.

**RESULTS**

The empirical stage of the study aimed to determine the effectiveness of the acmeologically oriented model for developing pedagogical culture among future teachers in the Republic of Uzbekistan and to compare obtained results with international trends in teacher professional development.

At the diagnostic stage, baseline levels of pedagogical culture were assessed in both experimental (EG) and control groups (CG). The assessment was conducted according to four criteria: value-motivational, cognitive-professional, reflective, and behavioral-practical components. The obtained results revealed that the majority of participants initially demonstrated low and medium levels of pedagogical culture, confirming the relevance of targeted developmental intervention.

**Table 1. Baseline levels of pedagogical culture (diagnostic stage, %)**

<b>Group</b>	<b>Low</b>	<b>Medium</b>	<b>Sufficient</b>	<b>High</b>
EG (n=256)	38.4	41.2	16.8	3.6
CG (n=255)	37.9	42.1	16.3	3.7

The similarity of baseline indicators confirms the comparability of the groups prior to the formative intervention.

During the formative stage, the experimental group participated in an acmeologically oriented training program integrating reflective practices, competency-

based tasks, collaborative projects, and value-oriented pedagogical workshops. The control group continued traditional teacher training without targeted acmeological intervention.

At the control stage, repeated diagnostics revealed significant positive changes in the experimental group.

**Table 2. Levels of pedagogical culture after intervention (control stage, %)**

<b>Group</b>	<b>Low</b>	<b>Medium</b>	<b>Sufficient</b>	<b>High</b>
EG (n=256)	12.3	32.6	38.7	16.4
CG (n=255)	34.8	43.0	18.5	3.7

The experimental group demonstrated a substantial decrease in low-level indicators (from 38.4% to 12.3%)

and a notable increase in sufficient and high levels (from 20.4% to 55.1%). In contrast, the control group showed only minor changes.

To verify statistical significance, comparative analysis of mean scores was conducted. The results confirmed statistically significant differences between experimental

and control groups ( $p < 0.05$ ), indicating the effectiveness of the proposed developmental model.

**Table 3. Dynamics of mean scores of pedagogical culture development**

Group	Diagnostic stage	Control stage	Growth index
EG	2.41	3.67	+1.26
CG	2.39	2.58	+0.19

*(Note: 1–low; 2–medium; 3–sufficient; 4–high)*

These results empirically confirm that the acmeological strategy significantly enhances the pedagogical culture of future teachers in the Uzbek context.

### DISCUSSION

The obtained findings align with international evidence emphasizing the effectiveness of structured and continuous professional development in enhancing teacher competence and pedagogical culture (Darling-Hammond et al., 2017; World Bank, 2022). Similar to Finnish teacher education practices, where reflective and research-based learning constitutes the foundation of professional growth (Niemi, 2015), the implemented model in Uzbekistan demonstrated the importance of reflective and self-analytical components in strengthening pedagogical culture.

The results also correspond with East Asian models of teacher development characterized by systematic mentoring and institutionalized professional learning communities (Farabi et al., 2025). However, unlike Singapore and South Korea, where professional culture is strongly discipline-oriented and norm-regulated, the Uzbek model integrates reflective practices with value-oriented educational traditions, emphasizing the teacher’s moral and civic role in student development.

Compared to performance-driven professional development models typical for the United States (Tatto, 2021), the Uzbek approach demonstrated a stronger emphasis on ethical and cultural dimensions of pedagogical culture. This confirms the necessity of adapting international teacher development frameworks to national ethno-cultural and axiological contexts rather than transferring them mechanically.

The comparative perspective indicates that while global trends in teacher professional development stress competence-based and outcome-oriented training, successful national implementation requires harmonization with societal expectations, cultural values, and traditional perceptions of the teacher’s role. In Uzbekistan, this balance manifests in combining professional competency formation with воспитательная and moral-educational priorities.

Thus, the empirical results of the study support the hypothesis that an acmeologically oriented model of pedagogical culture development, adapted to national educational traditions, provides an effective mechanism for modernizing teacher education in Uzbekistan. At the same time, the comparative analysis demonstrates that the Uzbek experience contributes to international discussions on contextualizing global teacher development strategies within specific socio-cultural environments.

### CONCLUSION

This study provides a comparative examination of teachers’ pedagogical culture in the context of national mentalities and educational system characteristics, with a particular focus on the Republic of Uzbekistan as an emerging model of educational modernization. The findings confirm that pedagogical culture is a multidimensional construct shaped by global professional standards and culturally determined educational traditions. While Western educational systems emphasize individual professional agency and performance-oriented teaching, and East Asian systems prioritize collective responsibility and institutional discipline, the Uzbek model demonstrates an integrative orientation combining professional competence with moral and civic educational functions.

The empirical results of the study substantiate the effectiveness of the acmeologically oriented model of pedagogical culture development implemented in Uzbek teacher education. The statistically significant positive dynamics in experimental groups confirm that structured reflective practices, competency-based tasks, and value-oriented pedagogical activities contribute to sustainable professional growth of future teachers. This evidence supports the feasibility of adapting international professional development frameworks to national contexts when ethno-cultural and axiological factors are taken into account.

The scientific novelty of the study lies in substantiating a contextualized acmeological strategy for developing pedagogical culture that harmonizes global teacher education trends with national educational values. The research expands comparative pedagogy by introducing empirical data from Uzbekistan into international academic discourse and by demonstrating mechanisms for balancing global standardization and cultural identity in teacher education reform.

The findings have practical implications for designing teacher education programs, professional development curricula, and institutional policies aimed at enhancing teacher professionalism in culturally diverse educational systems. Future research may further explore cross-cultural validation of acmeological development models and their long-term impact on teaching quality and educational outcomes.

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