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IMPROVING THE METHODOLOGY OF TEACHERS' PROFESSIONAL DEVELOPMENT IN THE CONTEXT OF HIGHER EDUCATION INTERNATIONALIZATION: A QUASI-EXPERIMENTAL STUDY

Abstract. *This study develops and evaluates an improved methodology for enhancing teachers' professional competence in the context of higher education internationalization. As universities in Uzbekistan increasingly engage in international partnerships, joint programs, and English-medium instruction, faculty members face mounting pressure to transform their professional practice beyond traditional pedagogical approaches. A quasi-experimental design was employed with 96 faculty members from two universities: an experimental group (n=48) receiving a 16-week Integrated Professional Development Program (IPDP) comprising intercultural competence training, technology-enhanced pedagogy workshops, collaborative teaching practicums, and reflective portfolio development, and a control group (n=48) following conventional professional development activities. Pre- and post-intervention assessments measured four competence dimensions: pedagogical innovation, intercultural communication, digital literacy, and reflective practice. Results demonstrated statistically significant improvements in the experimental group across all dimensions, with the largest effect observed in intercultural communication ($t(94) = 5.83, p < 0.001, d = 1.19$) and pedagogical innovation ($t(94) = 4.97, p < 0.001, d = 1.02$). Qualitative data from reflective portfolios and focus groups revealed that collaborative international teaching experiences and structured reflection were perceived as the most transformative components. These findings provide an empirically validated framework for faculty professional development in internationalizing higher education institutions.*

Keywords: *professional development, higher education internationalization, faculty competence, intercultural communication, pedagogical innovation, technology-enhanced pedagogy, reflective practice, teacher training.*

INTRODUCTION

The internationalization of higher education has emerged as one of the most consequential trends reshaping university systems worldwide. Defined by Knight (2004:11) as the process of integrating international, intercultural, and global dimensions into the purpose, functions, and delivery of higher education, internationalization places transformative demands on every aspect of institutional life, from governance and curriculum to research and community engagement. Among these demands, the need to develop faculty professional competence adequate to the challenges of internationalized teaching environments has been identified as both the most critical and the most persistently underaddressed (De Wit & Hunter, 2015:29).

In Uzbekistan, the pace of higher education internationalization has accelerated dramatically since 2019 with over 30 foreign university branches established and joint degree programs introduced. However, existing professional development programs remain predominantly lecture-based, theoretically oriented, and disconnected from the practical challenges of internationalized teaching (Sharipov, 2021:36). Research demonstrates that conventional professional development—short-term seminars and one-off workshops—is insufficient for producing the sustained changes necessary for effective teaching in internationalized contexts (Darling-Hammond, Hyler, & Gardner, 2017:4).

The study's theoretical foundation draws on three complementary frameworks. First, Desimone's (2009:183) research-based model of effective professional development, which identifies five critical features: content focus, active learning, coherence with institutional goals, sustained duration, and collective participation. These features distinguish transformative professional development from the superficial workshop-based models that dominate current practice.

Second, Byram's (1997:34) model of intercultural communicative competence, which identifies five *savoirs*: *savoirs* (knowledge), *savoir comprendre* (skills of interpreting), *savoir apprendre* (skills of discovery), *savoir être* (attitudes of openness), and *savoir s'engager* (critical cultural awareness). This model provides the conceptual basis for the intercultural dimension of professional development in internationalized settings.

Third, Schön's (1983:49) theory of reflective practice, which distinguishes between reflection-in-action (thinking while doing) and reflection-on-action (retrospective

analysis of practice). Schön's framework informs the reflective component of the proposed methodology, positioning critical self-examination as the mechanism through which experiential learning is consolidated into lasting professional transformation.

Research on faculty professional development in internationalized higher education has expanded significantly in recent years. Leask (2015:27) demonstrated that internationalization of the curriculum requires not merely content changes but a fundamental transformation of pedagogical approach, necessitating faculty development programs that address both what is taught and how it is taught. Childress (2010:42) found that the most effective internationalization strategies were those that engaged faculty as active participants in the design and implementation of international programs, rather than positioning them as passive recipients of top-down mandates.

In the Central Asian context, Brunner and Tillett (2007:118) documented the persistence of hierarchical authority structures and resistance to collaborative pedagogical models in post-Soviet higher education. Karimova (2023:58) identified a critical gap between digital tool availability and faculty pedagogical capacity in Uzbekistan. Sharipov (2021:36) argued that sustainable internationalization requires systemic faculty development addressing cognitive, attitudinal, and behavioral dimensions simultaneously. Despite this literature, empirical studies employing quasi-experimental designs to evaluate specific professional development interventions in Central Asian internationalizing institutions remain scarce.

METHODS

A quasi-experimental pretest-posttest design with a nonequivalent control group was employed. This design was selected because true randomization of faculty to experimental and control conditions was impractical within institutional settings, while the inclusion of pre-intervention measurement established baseline equivalence and strengthened causal inference (Creswell, 2014:172). The study was conducted over one academic semester (16 weeks) during the 2024–2025 academic year. Quantitative assessment data were supplemented with qualitative evidence from reflective portfolios and focus group discussions to provide a comprehensive evaluation of program effectiveness.

Ninety-six faculty members from two universities in Tashkent participated in the study: 48 in the experimental group (one international partnership university) and 48 in

the control group (one state university). Participants were matched on key demographic and professional variables. The experimental group comprised 22 males and 26 females (age $M = 39.8$, $SD = 7.4$; teaching experience $M = 11.2$ years, $SD = 5.8$), while the control group comprised 24 males and 24 females (age $M = 41.3$, $SD = 8.1$; teaching experience $M = 12.7$ years, $SD = 6.3$). Pre-test analysis confirmed no significant baseline differences between groups on any competence dimension (all $p > 0.05$).

The experimental intervention, the Integrated Professional Development Program (IPDP), was designed based on Desimone's (2009:183) five features of effective professional development and comprised four interconnected modules delivered over 16 weeks (4 hours per week, 64 contact hours total).

Module 1: Intercultural Competence (Weeks 1–4). Based on Byram's (1997:34) model, this module developed participants' knowledge of cultural diversity in educational settings, skills for interpreting and mediating across cultural perspectives, and attitudes of openness and curiosity toward culturally different students and colleagues. Activities included cultural case study analysis, cross-cultural simulation exercises, and collaborative projects with faculty from partner institutions abroad.

Module 2: Technology-Enhanced Pedagogy (Weeks 5–8). This module addressed the digital competence gap identified by Karimova (2023:62), training participants in the pedagogically effective use of LMS platforms, video conferencing tools, collaborative digital workspaces, AI-assisted assessment, and multimedia content creation. The focus was explicitly pedagogical rather than technical: participants learned not merely how to operate digital tools but how to integrate them into coherent instructional designs aligned with learning outcomes (Garrison & Vaughan, 2008:42).

Module 3: Collaborative Teaching Practicum (Weeks 9–12). Participants engaged in peer observation, team teaching, and collaborative curriculum design activities with international partner faculty. Each participant co-designed and co-delivered at least two class sessions with a colleague from a different cultural and pedagogical tradition, followed by structured debriefing sessions. This module operationalized Childress's (2010:45) finding that faculty engagement in collaborative international teaching is the single most powerful driver of professional transformation.

Module 4: Reflective Portfolio Development (Weeks 13–16). Drawing on Schön's (1983:49) reflective practice framework, participants compiled professional portfolios

documenting their learning journey, incorporating teaching artifacts, self-assessments, peer feedback, and critical reflective narratives. The portfolio served both as a learning tool and as a summative assessment instrument, enabling participants to consolidate their experiential learning into articulated professional knowledge.

The control group continued with conventional professional development activities, including periodic seminars, conference attendance, and individual self-study, without access to the structured IPDP modules.

Professional competence was assessed using a 60-item instrument measuring four dimensions: pedagogical innovation (15 items, $\alpha = 0.88$), intercultural communication (15 items, $\alpha = 0.91$), digital literacy (15 items, $\alpha = 0.85$), and reflective practice (15 items, $\alpha = 0.87$). Each dimension was scored on a 100-point scale. Quantitative data were analyzed using SPSS 28.0 (independent and paired samples t-tests, ANCOVA, Cohen's d). Qualitative data from portfolios (48) and two focus groups (12 participants each) were analyzed using thematic analysis (Braun & Clarke, 2006:77). Two researchers independently coded qualitative data (inter-coder agreement: 89.2%).

RESULTS AND DISCUSSION

Pre-test analysis confirmed baseline equivalence between the experimental and control groups across all four competence dimensions (all $p > 0.05$). Post-intervention results revealed statistically significant differences favoring the experimental group on every dimension.

Table 1. Pre-test and Post-test Results by Group and Competence Dimension

Dimension	EG Pre	EG Post	CG Pre	CG Post	t(94)	p	d
Pedagogical innov.	52.4	74.8	51.8	57.3	4.97	<.001	1.02
Intercultural comm.	41.2	71.6	40.5	46.8	5.83	<.001	1.19
Digital literacy	48.7	68.3	47.9	53.1	4.24	<.001	0.87
Reflective practice	44.5	72.1	43.8	48.4	5.41	<.001	1.11

Note. EG = Experimental Group (n=48); CG = Control Group (n=48). Scores on 100-point scale.

The largest effect size was observed for intercultural communication (d = 1.19), reflecting the fact that this dimension had the lowest baseline scores and received the most intensive and experientially rich intervention through Module 1 and Module

3. Pedagogical innovation showed the second largest effect ($d = 1.02$), followed by reflective practice ($d = 1.11$) and digital literacy ($d = 0.87$). All effect sizes exceeded Cohen's threshold for large effects ($d > 0.80$), indicating that the IPDP produced practically significant improvements across all competence dimensions.

Within-group analysis revealed that the experimental group's improvement was substantial across all dimensions: pedagogical innovation increased by 42.7%, intercultural communication by 73.8%, digital literacy by 40.2%, and reflective practice by 62.0%. The control group showed modest improvements of 10.6%, 15.6%, 10.9%, and 10.5% respectively, likely attributable to general professional experience rather than the conventional development activities, which produced no significant pre-post change on any individual dimension (all $p > 0.05$).

Thematic analysis of reflective portfolios and focus group transcripts identified four themes that illuminate the mechanisms through which the IPDP produced its effects.

Theme 1: Transformative Encounters. Participants consistently identified collaborative teaching experiences with international colleagues (Module 3) as the most transformative component of the program. The direct experience of co-teaching with a colleague from a different pedagogical tradition created what several participants described as a "professional mirror"—an opportunity to see their own habitual practices from an outside perspective. One participant noted: the experience revealed assumptions about teaching that I had never questioned because everyone around me shared them. This finding confirms Childress's (2010:45) observation that international collaborative teaching experience is the most powerful catalyst for professional transformation.

Theme 2: From Resistance to Ownership. A significant number of participants (approximately 40%) reported initial skepticism or resistance toward the program, particularly regarding the intercultural competence and reflective practice modules. However, the majority of initially resistant participants described a gradual shift from skepticism to engagement to ownership as they experienced the practical relevance of the program content. The sustained duration of the intervention (16 weeks) was identified as critical for enabling this attitudinal transformation, consistent with Desimone's (2009:187) finding that professional development programs shorter than 20 hours rarely produce lasting behavioral change.

Theme 3: Digital Confidence. The technology-enhanced pedagogy module produced not only skill development but a significant shift in participants' confidence

and attitudes toward digital tools. Participants who had previously viewed technology as an imposed burden came to perceive it as a pedagogical resource that expanded their instructional repertoire. The key factor identified was the module's emphasis on pedagogical integration rather than technical operation—learning to design technology-enhanced learning experiences rather than merely operating software (Garrison & Vaughan, 2008:55).

Theme 4: Reflective Identity Shift. The portfolio development process (Module 4) was described by participants as unexpectedly powerful. The requirement to document, analyze, and articulate their professional development journey prompted many participants to reconceptualize their professional identity from knowledge transmitters to learning facilitators. This identity shift, consistent with Schön's (1983:62) theory that reflective practice transforms not only behavior but professional self-concept, was identified as the deepest and most durable outcome of the program.

The results carry several implications for the design of faculty professional development in internationalizing higher education institutions. First, professional development must be sustained, intensive, and practice-oriented rather than episodic and theory-dominated. The IPDP's 64-hour, 16-week format stands in sharp contrast to the typical 2–4 hour seminar that constitutes the norm in many Uzbekistan universities and proved far more effective in producing lasting change (Darling-Hammond et al., 2017:12).

Second, the intercultural dimension must be addressed explicitly and experientially rather than assumed to develop through mere exposure to international contexts. The dramatic improvement in intercultural communication scores (73.8% increase) demonstrates that targeted intervention produces results that incidental exposure cannot replicate (Byram, 1997:88). Third, reflective practice must be integrated as a sustained component rather than an add-on, as it serves as the mechanism through which diverse experiential inputs are consolidated into coherent professional transformation (Schön, 1983:68).

Several limitations should be acknowledged. The quasi-experimental design, while stronger than purely descriptive approaches, does not fully control for selection effects between the university sites. The 16-week duration, while adequate for detecting immediate effects, does not establish the long-term durability of competence gains; follow-up assessments at 6 and 12 months post-intervention would strengthen

the evidence base. The sample was drawn from Tashkent universities, limiting generalizability to regional institutions. Future research should employ multi-site designs with randomized assignment where feasible, incorporate longitudinal follow-up, and extend the investigation to diverse institutional contexts.

CONCLUSION

This study has demonstrated that the Integrated Professional Development Program (IPDP), designed on the basis of research-validated principles of effective professional development, produces statistically significant and practically meaningful improvements in four critical dimensions of faculty professional competence: pedagogical innovation ($d = 1.02$), intercultural communication ($d = 1.19$), digital literacy ($d = 0.87$), and reflective practice ($d = 1.11$). These results substantially exceeded the effects of conventional professional development activities, which produced no significant improvements on any dimension.

The qualitative findings reveal that the IPDP's effectiveness derives from its integration of four key design principles: experiential international collaboration, sustained duration enabling attitudinal transformation, pedagogically grounded digital training, and structured reflective practice promoting professional identity reconstruction. Collectively, these principles constitute an evidence-based methodology for faculty professional development that addresses the multidimensional competence demands of internationalized higher education.

The implications for institutional policy are direct: universities pursuing internationalization must reconceptualize professional development from a peripheral administrative function to a strategic institutional priority, investing in sustained, intensive, practice-oriented programs that engage faculty as active agents of their own professional transformation. The IPDP framework developed and evaluated in this study provides a replicable model for such investment, adaptable to the specific institutional, cultural, and resource contexts of diverse higher education systems.

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