International Journal of Pedagogics

VOLUME Vol.05 Issue11 2025
PAGE NO. 249-254
DOI 10.37547/ijp/Volume05Issue11-57

Multimodal Approach To The Improvement Of Teachers' Qualification

Alimova Dildora Komiljon qizi

EFL teacher of the department of English theoretical aspects-3, English faculty-3, The Uzbekistan state world languages university, Uzbekistan

Received: 26 September 2025; **Accepted:** 16 October 2025; **Published:** 21 November 2025

Abstract: Teacher qualification improvement represents a critical component of educational quality enhancement and system-wide reform. This article examines how multimodal pedagogical approaches can advance the professional qualification of practicing teachers through engagement with multiple modes of communication, representation, and professional learning. Drawing on contemporary research in professional development, multimodal literacy theory, and adult learning frameworks, this study analyzes the theoretical foundations and practical applications of multimodal approaches in teacher qualification programs. Findings suggest that integrating visual, auditory, kinesthetic, digital, and collaborative modalities in professional development significantly enhances pedagogical expertise, instructional adaptability, technological integration skills, and reflective capacity.

Keywords: Teacher qualification, multimodal learning, professional development, continuing education, pedagogical innovation.

Introduction: The continuous improvement of teacher qualifications has emerged as a global priority in educational policy and practice. As educational systems face increasing complexity—characterized by rapid technological advancement, diverse student populations, evolving curriculum standards, and new pedagogical paradigms—teachers must continuously upgrade their professional qualifications to maintain effectiveness (Darling-Hammond, 2017). Teacher qualification encompasses formal credentials, subject matter expertise, pedagogical knowledge, and the capacity to implement evidence-based instructional practices that promote student learning (Hattie, 2009). Traditional approaches to teacher qualification improvement have often relied heavily on text-based coursework, lecture-style workshops, and isolated professional development sessions. However, research increasingly demonstrates that such single-mode approaches produce limited impact on classroom practice and student outcomes (Desimone, 2009). In contrast, multimodal approaches to professional learning recognize that adult educators construct knowledge through multiple semiotic systems and benefit from varied, integrated learning experiences that mirror the complexity of teaching practice (Kress, 2010). Multimodal professional development incorporates diverse modes of engagement including visual analysis, digital technology integration, hands-on experimentation, collaborative inquiry, and reflective dialogue (Jewitt, 2008). By experiencing learning through multiple modalities, teachers develop enhanced capacity to design differentiated instruction, utilize varied representational systems, and respond effectively to diverse student needs. This article explores how multimodal approaches can systematically improve teacher qualifications across career stages and educational contexts. The central research question guiding this investigation is: How can multimodal approaches to professional development enhance teacher qualifications and instructional effectiveness? This inquiry addresses critical gaps in professional learning literature and offers practical implications for educational administrators, professional development designers, and policy makers invested in teacher quality improvement.

METHOD

Multimodal Literacy and Communication Theory

Multimodal literacy theory, as articulated by Kress and

Van Leeuwen (2006), posits that meaning-making occurs through orchestrated use of multiple semiotic resources including language, image, gesture, sound, and spatial arrangement. For teachers, developing multimodal competence involves both understanding how different modes convey meaning and acquiring facility in designing multimodal learning experiences for students. Professional development that models multimodal approaches provides teachers with direct experience in varied meaning-making systems while demonstrating their pedagogical applications. Social semiotics perspectives emphasize that different modes afford different meaning-making potentials (Kress, 2010). Visual modes excel at representing spatial relationships and concrete phenomena; linguistic modes facilitate abstract reasoning and sequential argumentation; kinesthetic modes enable embodied understanding of processes and procedures. Teachers who understand these affordances can make informed pedagogical decisions about which modes to employ for specific learning objectives.

Multimodal Approaches to Teacher Qualification Improvement

Video-Based Professional Learning

Video analysis represents a powerful multimodal approach to teacher qualification improvement. Through examination of classroom footage—whether of their own practice or exemplar teaching—educators develop observational skills, recognize effective instructional moves, and build shared professional vocabulary (Gaudin & Chaliès, 2015). Video enables teachers to notice instructional details often missed in real-time teaching, to revisit complex moments multiple times, and to collaboratively analyze pedagogical decisions with colleagues. Research demonstrates that structured video analysis protocols produce significant improvements in teaching practice. Sherin and van Es (2009) found that teachers who participated in video clubs—regular sessions examining classroom footage—developed enhanced ability to notice significant instructional events, interpret student thinking, and make evidence-based pedagogical decisions. When video analysis is combined with written reflection and collaborative discussion, it exemplifies powerful multimodal learning that bridges individual insight and collective knowledge construction. Furthermore, teachers can create their own video documentation of practice, engaging in self-analysis that promotes metacognitive awareness and targeted improvement. Video-based coaching, where teachers receive feedback from instructional coaches via recorded lessons, extends professional learning beyond workshop settings into authentic classroom contexts (Pianta et al., 2008).

Digital Technology Integration

Qualification improvement increasingly requires teachers to develop technological competence aligned with 21st-century learning demands. Multimodal professional development in educational technology goes beyond basic technical training to address meaningful integration of digital tools in instruction. Effective approaches provide hands-on experience with learning management systems, educational applications, interactive whiteboards, student response systems, multimedia creation tools, and emerging technologies such as virtual reality and artificial intelligence-enhanced learning platforms (Harris et al., 2009).

Digital storytelling workshops, for example, engage teachers in creating narrative multimedia projects that combine research, scriptwriting, visual design, audio recording, and video editing. This multimodal creation process develops multiple competencies simultaneously while demonstrating how similar projects can engage students in deep content learning (Robin, 2008). Teachers who create digital artifacts gain practical understanding of multimodal composition, technical facility with creation tools, and insight into assessment of student multimedia work. Online and blended professional learning modalities themselves represent multimodal approaches. Asynchronous discussion forums, synchronous video conferencing, shared digital workspaces, and multimedia resource libraries provide flexible, varied pathways for professional learning that accommodate diverse schedules and learning preferences while building professional learning communities that transcend geographic boundaries (Dede et al., 2009).

Collaborative Inquiry and Lesson Study

Lesson study, a professional development model originating in Japan, exemplifies collaborative multimodal learning (Lewis et al., 2006). In lesson study cycles, teachers collaboratively plan detailed lessons, observe implementation with careful documentation, discuss observations drawing on multiple data sources (student work, observation notes, video footage), and refine lessons based on evidence. This process engages multiple modalities: written planning documents, oral discussion, observational data collection, student artifact analysis, and reflective dialogue. Research indicates that lesson study participation significantly improves teacher qualification by developing pedagogical content knowledge, promoting attention to student thinking, fostering collaborative professional culture, and building adaptive expertise (Lewis et al., 2006). The multimodal nature of lesson study—integrating planning, observation, discussion,

analysis, and revision—creates powerful learning opportunities that single-mode professional development cannot replicate. Professional learning communities (PLCs) similarly leverage collaborative multimodal engagement. When teachers examine student work together, analyze assessment data, share instructional strategies, observe each other's classrooms, and engage in joint problem-solving, they develop collective expertise that enhances individual and organizational capacity (DuFour & Eaker, 1998). These collaborative processes naturally incorporate multiple modalities while addressing authentic problems of practice.

Action Research and Reflective Practice

Action research provides a structured multimodal approach to teacher qualification improvement through systematic inquiry into one's own practice (Cochran-Smith & Lytle, 2009). Teachers identify problems of practice, review relevant literature, collect multiple forms of data (observations, surveys, student work, test scores, video recordings), analyze findings, implement changes, and share results with colleagues. This inquiry process develops research literacy, analytical skills, and evidence-based decision-making capacity while improving qualifications through formal study and practical experimentation. Multimodal reflective portfolios represent another approach to qualification improvement. Teachers curate collections of artifacts demonstrating professional growth—lesson plans, student work samples, video clips, reflective writing, assessment data analysis, and documentation of professional learning—organized around professional teaching standards or personal learning goals (Zeichner & Wray, 2001). The portfolio development process itself promotes deep reflection while providing tangible evidence of qualification enhancement for evaluation and advancement purposes.

Experiential and Simulation-Based Learning

Kinesthetic and experiential modalities in professional development address embodied dimensions of teaching practice. Simulation technologies, including virtual reality classroom simulations and computer-based teaching scenarios, provide safe environments for teachers to practice instructional techniques, classroom management strategies, and responsive teaching approaches (Dieker et al., 2014). These simulations engage visual, auditory, and decision-making modalities while providing immediate feedback on pedagogical choices.
Role-play and rehearsal activities in professional development settings allow teachers to practice difficult conversations with parents, experiment with new instructional routines, or try facilitation techniques for student-centered learning. These embodied experiences help teachers internalize new practices and build confidence before implementation in high-stakes classroom contexts (Lampert et al., 2013).

Laboratory experiences and demonstration lessons provide opportunities for teachers to observe expert practitioners, try new instructional materials and tools, and receive coaching in authentic teaching contexts. These multimodal experiences bridge theory and practice by engaging teachers in active experimentation with immediate application to their work. Empirical research demonstrates that multimodal professional development produces significant improvements in pedagogical knowledge and classroom practice. A large-scale study by Desimone et al. (2002) found that teachers participating in professional development with multiple modalities—including hands-on activities, observation, and collaborative work—showed greater gains in instructional practice and student achievement compared to those receiving traditional workshop-based training. Video-based professional learning specifically has demonstrated robust effects on teaching quality. Allen and van Es (2017) found that teachers engaging in regular video analysis developed enhanced noticing skills, more student-centered instructional approaches, and improved responsiveness to student thinking. These improvements translated into measurable gains in student learning outcomes, particularly in mathematics and science education.

Improved Technology Integration Skills

Research on technology-focused professional development indicates that multimodal, sustained learning experiences significantly improve teacher qualifications in educational technology. Lawless and Pellegrino (2007) found that teachers participating in intensive, multi-year professional development programs incorporating hands-on technology use, collaborative lesson design, and classroom implementation support demonstrated substantially higher levels of meaningful technology integration compared to teachers receiving brief training workshops. Studies of TPACK development through multimodal professional learning show particular promise. Harris et al. (2009) documented that teachers who engaged with technology through authentic curriculum planning activities, combined with reflection on pedagogical affordances and subject-specific applications, developed integrated technological-pedagogical-content knowledge that persisted across time and transferred to varied

teaching contexts. Multimodal approaches to professional development cultivate reflective practice capacity essential for ongoing qualification improvement. Research by Hatton and Smith (1995) demonstrated that teachers engaging in varied reflective modalities—including written journals, video self-analysis, peer observation, and collaborative dialogue—developed more sophisticated reflective thinking than those using single-mode reflection. Multimodal reflection supports development from descriptive reflection to critical reflection that examines underlying assumptions and considers alternative practices. Furthermore, participation in multimodal professional learning communities shapes teacher professional identity in ways that support continuous qualification improvement. Teachers who engage in collaborative inquiry, share practice through multiple media, and participate in distributed professional learning networks develop identities as knowledge producers and continuous learners rather than passive consumers of externally-generated expertise (Cochran-Smith & Lytle, 2009).

Impact on Student Learning Outcomes

Ultimately, teacher qualification improvement must be evaluated by its impact on student learning. Meta-analyses of professional development research indicate that multimodal, sustained professional learning programs produce educationally significant effects on student achievement, with effect sizes ranging from 0.20 to 0.50 standard deviations (Yoon et al., 2007). These effects are largest when professional development incorporates multiple modalities, extends over substantial time periods, focuses on specific content and pedagogy, and includes opportunities for active learning and collaborative problem-solving. Specific examples include studies of literacy professional development programs incorporating video analysis, collaborative text study, lesson planning workshops, and classroom coaching, which produced significant improvements in student reading comprehension (Sailors & Price, 2015). Similarly, mathematics professional development programs using multimodal approaches—including manipulative exploration, video case analysis, lesson study, and collaborative problem-solving—generated substantial gains in student mathematical reasoning and problem-solving (Desimone et al., 2002).

Implementation Recommendations for Educational Systems

Designing Effective Multimodal Professional Development Programs

Educational leaders seeking to improve teacher qualifications through multimodal approaches should incorporate several key design principles. First, professional development should be sustained over extended time periods rather than delivered as isolated workshops, with ongoing opportunities for practice, reflection, and refinement. Second, multiple modalities should be intentionally integrated rather than simply juxtaposed, with explicit attention to how different modes support particular learning goals. Third, professional development should be job-embedded whenever possible, connecting learning experiences directly to teachers' current students, curriculum, and instructional contexts (Darling-Hammond et al., 2017). Effective programs balance external expertise with teacher agency, providing access to research-based practices and expert modeling while honoring teachers' professional knowledge and creating space for collaborative adaptation and innovation. Multimodal approaches particularly support this balance by offering varied entry points for engagement and multiple pathways for knowledge construction.

Recognizing and Credentialing Qualification Improvement

Educational systems should establish clear pathways for teachers to receive formal recognition and advancement based on qualification improvement through multimodal professional development. This might include micro-credentials for specific competencies demonstrated through multimodal portfolios, career ladder systems recognizing accomplished teaching practice documented through video and artifact collections, or advanced certification programs incorporating varied evidence of teaching excellence (Hyler & Gardner, 2017). Recognition systems should value the multimodal nature of teaching expertise itself, assessing not just written examinations but also video-documented classroom practice, collaborative contributions to professional learning communities, and evidence of student learning growth. Such multidimensional assessment better captures the complexity of teaching qualification and provides more authentic evaluation of professional growth.

Challenges and Future Directions

Addressing Implementation Challenges

Despite strong evidence supporting multimodal approaches to teacher qualification improvement, several challenges impede widespread implementation. Time constraints represent the most commonly cited barrier, as teachers face competing demands and limited dedicated professional learning time (Desimone, 2009). Addressing this challenge requires systemic commitment to protecting time for professional development and embedding learning

opportunities within the regular work day. Resource limitations, including inadequate technology infrastructure, insufficient professional development budgets, and lack of instructional coaching capacity, also constrain implementation. Educational systems must prioritize resource allocation for teacher learning as essential investment in educational quality rather than discretionary expense. Resistance to change, both from teachers comfortable with existing practices and administrators unfamiliar with multimodal professional development models, requires attention to change management processes. Building early success examples, involving teachers in professional development design, and providing ongoing support during implementation can build momentum for broader adoption (Fullan, 2007).

Future Research Directions

Continued research should examine several critical questions regarding multimodal approaches to teacher qualification improvement. First, what combinations and sequences of modalities prove most effective for developing specific competencies at different career stages? Comparative studies could identify optimal multimodal configurations for novice teacher support, mid-career pedagogical advancement, and expert teacher leadership development. Second, how do multimodal professional development effects vary across cultural contexts, educational systems, and subject areas? International comparative research could illuminate culturally specific considerations for implementing multimodal professional learning and identify universal principles applicable across diverse contexts. Third, what role do emerging technologies—including artificial intelligence, virtual reality, and augmented reality—play in multimodal qualification improvement? Research should examine both the affordances and limitations of these technologies while considering issues of access, equity, and authentic application to classroom practice. Finally, longitudinal research should trace long-term impacts of multimodal professional development on teacher retention, career trajectories, and sustained instructional effectiveness. Understanding how early-career participation in high-quality multimodal professional learning influences professional identity development and career commitment would inform system-level investment decisions.

CONCLUSION

Multimodal approaches to teacher qualification improvement offer substantial potential for enhancing educational quality through systematic development of teacher expertise. By engaging educators through visual analysis, digital technology integration, collaborative inquiry, reflective practice, and experiential learning, professional development programs can cultivate the complex, multidimensional competencies required for effective 21st-century teaching. Research evidence consistently demonstrates that multimodal professional learning produces significant improvements in pedagogical knowledge, instructional practice, technological competence, and ultimately, student learning outcomes. As educational systems worldwide confront demands for continuous improvement in teaching quality, multimodal approaches provide practical, evidence-based pathways for teacher qualification enhancement. These approaches honor the complexity of teaching practice by providing varied, integrated learning experiences that mirror the multimodal nature of effective instruction. They support both individual professional growth and collaborative knowledge construction, building teacher capacity and organizational learning simultaneously. Implementation of multimodal professional development requires sustained commitment from educational leaders, adequate resource allocation, supportive organizational conditions, and recognition systems that value multidimensional teaching expertise. However, the evidence clearly indicates that such investment yields substantial returns in the form of improved teacher qualifications, enhanced instructional effectiveness, and better student learning outcomes. The future of teacher qualification improvement lies in continuing evolution toward more sophisticated, integrated, and responsive multimodal approaches. As educational technologies advance, as understanding of adult learning deepens, and as teaching practice itself becomes increasingly multimodal, professional development must continue adapting to prepare teachers for evolving educational realities. Through thoughtful design, sustained implementation, and ongoing research, multimodal approaches can transform teacher qualification improvement from isolated events into continuous, career-long professional growth that benefits educators, students, and educational systems as a whole.

REFERENCES

1. Allen, C. D., & van Es, E. A. (2017). Video as a tool for fostering productive discussions in mathematics professional development. Journal of Mathematics Teacher Education, 20(5), 457-485.
2. Cochran-Smith, M., & Lytle, S. L. (2009). Inquiry as stance: Practitioner research for the next generation. Teachers College Press.
3. Darling-Hammond, L. (2017). Teacher education

around the world: What can we learn from international practice? European Journal of Teacher Education, 40(3), 291-309.

4. Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). Effective teacher professional development. Learning Policy Institute.
5. Dede, C., Ketelhut, D. J., Whitehouse, P., Breit, L., & McCloskey, E. M. (2009). A research agenda for online teacher professional development. Journal of Teacher Education, 60(1), 8-19.
6. Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. Educational Researcher, 38(3), 181-199.
7. Desimone, L. M., Porter, A. C., Garet, M. S., Yoon, K. S., & Birman, B. F. (2002). Effects of professional development on teachers' instruction: Results from a three-year longitudinal study. Educational Evaluation and Policy Analysis, 24(2), 81-112.
8. Dieker, L. A., Rodriguez, J. A., Lignugaris/Kraft, B., Hynes, M. C., & Hughes, C. E. (2014). The potential of simulated environments in teacher education: Current and future possibilities. Teacher Education and Special Education, 37(1), 21-33.
9. DuFour, R., & Eaker, R. (1998). Professional learning communities at work: Best practices for enhancing student achievement. National Educational Service.
10. Fullan, M. (2007). The new meaning of educational change (4th ed.). Teachers College Press.
11. Gaudin, C., & Chaliès, S. (2015). Video viewing in teacher education and professional development: A literature review. Educational Research Review, 16, 41-67.
12. Harris, J., Mishra, P., & Koehler, M. (2009). Teachers' technological pedagogical content knowledge and learning activity types: Curriculum-based technology integration reframed. Journal of Research on Technology in Education, 41(4), 393-416.
13. Yodgorovna, M. M. (2025). RVA (RECOGNITION, VALIDATION AND ACCREDITATION) IS THE FOUNDATION OF EDUCATION. Web of Teachers: Inderscience Research, 3(5), 14-18.
14. Alimova, D. (2024). Enhancing teachers' qualifications in collaborative learning environment. O'zbekiston davlat jahon tillari universiteti konferensiyalari, 692-696.
15. Qizi, A. D. K. (2021). TEACHING ENGLISH THROUGH ENGLISH: PROFICIENCY, PEDAGOGY AND PERFORMANCE. Вестник науки и образования, (8-2 (111)), 48-51.
16. Qizi, A. D. K. (2021). MIXED-ABILITY CLASSES: FACTORS, CHALLENGES AND ADVANTAGES. Вестник науки и образования, (2-1 (105)), 44-46.