

AINUR SAGYMBAYEVA¹, DARAZHA ISSABAYEVA², LYAZZAT RAKHIMZHANOVA^{3}*

^{1,3}*Al-Farabi Kazakh National University (Almaty, Kazakhstan)*

²*Abai Kazakh National Pedagogical University (Almaty, Kazakhstan)*

*Address of correspondence: Lyazzat Rakhimazhanova, Kandidat of Pedagogical Sciences,
Professor, Department of Computer Science, al-Farabi Kazakh National University, 71 Al-Farabi Ave.,
Almaty, Republic of Kazakhstan, 050040, <https://orcid.org/0000-0003-1136-3811>,
E-mail address: lyazatr72@gmail.com /Tel.:+77476754710

Teacher Initiative: A Catalyst for Effectiveness of Continuous Professional Development

Abstract

Introduction. The study addresses teacher initiative as a measurable indicator of continuous professional development (CPD) effectiveness in the context of global educational transformations, where CPD has become a strategic priority for ensuring educational quality and adaptability to change. The research aims to conceptualize teacher initiative as reflecting professional maturity, autonomy, and readiness for innovation. *Methodology and Methods.* This theoretical and analytical study employs content analysis, comparative analysis, and systematization methods to analyze international frameworks (CPD, OECD, UNESCO), educational policies, and empirical research. The research develops an evaluation algorithm for assessing educational initiatives implemented by teachers through systematic examination of existing literature and policy documents. *Results.* The study establishes that teacher initiative, demonstrated through development and implementation of original methodologies, participation in professional communities, and project-based activities, contributes to both individual professional growth and institutional advancement. An evaluation model integrating quantitative and qualitative criteria was developed, emphasizing the importance of motivation, creativity, and reflection in teachers' developmental trajectory. The research identifies key components of teacher initiative and their measurable indicators for CPD assessment. *Scientific novelty.* The research provides theoretical conceptualization of teacher initiative as a core measurable indicator of CPD effectiveness, offering a comprehensive framework that bridges international standards with practical evaluation approaches and establishing the theoretical foundation for integrating initiative assessment into professional development systems. *Practical significance.* The findings support integration of initiative as a core element in teacher evaluation and professional growth systems, providing educational administrators and policymakers with evidence-based tools for assessing and promoting teacher professional development effectiveness in contemporary educational contexts.

Keywords: teacher initiative, continuous professional development, professional autonomy, educational initiatives, effectiveness assessment, professional maturity.

Introduction. In the context of rapidly changing socio-cultural and technological environments, education is increasingly gaining the status of a continuous process aimed at developing sustainable professional and personal competencies. Continuous professional development (CPD) of teachers has become a key mechanism for ensuring the quality of education by promoting the ongoing renewal of knowledge, improvement of teaching methodologies, advancement of digital

literacy, and the formation of reflective teaching practices (Ambon et al, 2024). The modern CPD paradigm encompasses a wide range of formats: participation in methodological seminars, online courses, advanced training programs, teaching internships, professional competitions, maintenance of digital portfolios, as well as engagement in research and project initiatives. The effectiveness of these formats is determined not only by their content but also by the teacher's active involvement, motivation for

growth, and readiness for self-transformation and innovation.

One of the crucial factors defining the success of CPD is teacher initiative. This phenomenon reflects the teacher's level of professional maturity, ability to independently plan their development trajectory, explore and master new approaches, and generate and implement pedagogical ideas. In educational systems oriented toward sustainable and transformative outcomes, initiative is considered a critical indicator of professional growth quality. First, the shift in CPD systems from formal participation in training activities toward practical and results-oriented outcomes makes pedagogical initiative a determining condition for implementing changes in educational practice. Second, initiative is an expression of professional autonomy- the capacity to make conscious choices in teaching methods, strategies, and formats, as well as to creatively solve pedagogical challenges. Third, active participation in research, project, and methodological activities contributes not only to individual professional development but also to the overall effectiveness of the educational institution. Fourth, in several international and national assessment models (e.g., CPD frameworks, OECD tools, and UNESCO recommendations), teacher initiative is recognized as a valid indicator of professional growth, measurable through collaboration, engagement in innovative projects, publication activity, and influence on the educational environment (UNESCO, 2021; OECD, 2020). Thus, teacher initiative serves as an essential and objective indicator of effective professional development, reflecting not only the degree of competence acquisition but also the capacity for sustainable professional renewal and transformation of educational practices.

Materials and Methods. This study is a theoretical and analytical investigation that explores teacher initiative as a critical indicator of the effectiveness of continuous professional development (CPD). The research is grounded in a structured process of collecting and analyzing secondary data obtained from scholarly literature, policy documents, and international educational frameworks.

Data were gathered through a systematic review of relevant literature and official documentation. The process consisted of the following stages:

Academic databases including Scopus, Web of Science, ERIC, and Google Scholar, along with institutional websites such as those of the OECD, UNESCO, and the Ministry of Education of the Republic of Kazakhstan, were used to identify pertinent sources.

A set of keywords was used to guide the search, including "teacher initiative", "continuous professional development", "professional autonomy", "teacher evaluation", and "educational innovation". The review focused exclusively on peer-reviewed journal articles, analytical policy reports, national standards, and conceptual frameworks published within the last 10 years to ensure currency and relevance. A total of over 17 sources were selected based on their academic credibility, relevance to the study topic, and their contribution to the conceptualization of teacher initiative within CPD contexts. The collected data were examined using qualitative methods appropriate for theoretical research: Documents were manually coded to identify recurring references to teacher initiative, professional maturity, and evaluation criteria. Codes were organized into thematic categories such as motivation, innovation, self-regulation, and autonomy. Models of CPD and teacher evaluation frameworks from different countries and educational institutions were compared to identify shared indicators, particularly those recognizing initiative as a measure of professional growth. Emerging themes were synthesized to construct a conceptual framework illustrating how teacher initiative functions as an indicator of CPD effectiveness. Identified forms of initiative-such as participation in educational projects, professional competitions, digital tool development, and mentoring-were categorized and structured into a proposed evaluation algorithm, detailed in the Results section.

The Results section presents findings derived from the analytical procedures described above:

- a five-step algorithm for assessing teacher initiative was developed based on the literature and policy analysis;

- each phase of the algorithm such as documentation, criteria development, and evidence collection was directly linked to the indicators extracted through content and comparative analysis.

The final model integrates both qualitative dimensions (e.g., creativity, intrinsic motivation) and quantitative components (e.g., rubric-based assessment, documented evidence), as further elaborated in the Discussion section. Through this rigorous theoretical methodology, the study constructs a comprehensive model in which teacher initiative is not only viewed as a manifestation of professional competence but also as a measurable and valid indicator for evaluating CPD effectiveness across diverse educational systems.

Results. Continuous professional development (CPD) of teachers is a vital element of the modern educational system, contributing not only to the enhancement of qualifications but also to the development of professional autonomy and readiness for innovation. According to educational change

theories (Fullan, 2016), CPD plays a key role in helping teachers adapt to the evolving demands of the educational environment and society. Importantly, CPD involves not only the acquisition of new knowledge but also its application in professional practice through initiative-driven actions (Senge, 2013). Educational initiative is considered a central component of effective professional development. It is reflected in the teacher's ability not only to generate new ideas and methodologies but also to implement them effectively within specific educational contexts. Manifestations of pedagogical initiative-such as the development of original programs, the creation of digital resources, and the implementation of research and project-based activities-can significantly transform educational processes both at the level of individual schools and across the broader system (LaClair, 2015; Saleem et al., 2021).

Based on the theoretical analysis, an algorithm was developed for assessing the effectiveness of CPD through teacher-led educational initiatives (see Figure 1).

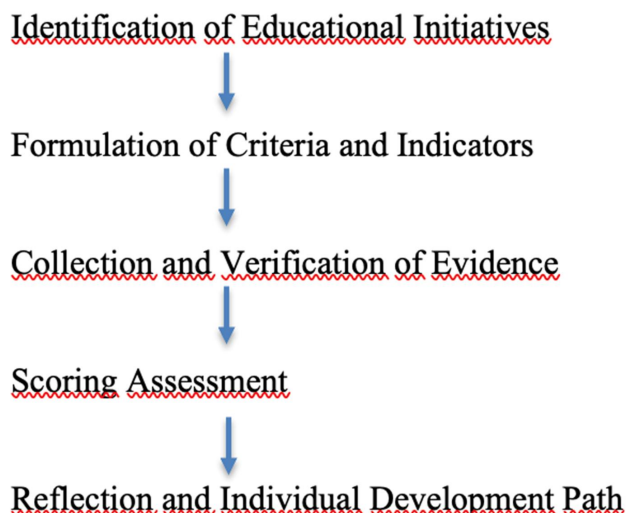


Figure 1: Algorithm for Assessing the Effectiveness of CPD

1. Identification of Educational Initiatives

The first step involves documenting the specific initiatives implemented by the teacher, such as participation in professional competitions, publications, methodological developments, integration of digital tools, and project activities. Special attention is paid to

the impact of these initiatives on the learning process.

2. Formulation of Evaluation Criteria and Indicators

This stage assesses the relevance, novelty, scale of implementation, effectiveness, and the degree of teacher autonomy in realizing the

initiatives. These parameters help to objectively evaluate the teacher's professional maturity.

3. Collection and Verification of Evidence

Supporting materials are gathered, including certificates, reports, expert reviews, and feedback from colleagues and students. Verification of these documents ensures the reliability of the evaluation.

4. Scoring Assessment

A scoring system (e.g., from 0 to 5 points for each criterion) is used to quantitatively assess the effectiveness of each educational initiative. This helps to systematize the results and identify areas for professional growth.

5. Reflection and Individual Development Path

The teacher conducts a self-assessment of achievements and challenges, formulates corrective goals, and plans future development strategies, including the acquisition of new competencies.

The approach to assessing CPD effectiveness based on educational initiatives aligns with the principles of the competency-based model. According to Shulman (2004), teachers who demonstrate high levels of initiative exhibit greater professional maturity, critical thinking, and the ability to transform educational environments.

As a result of theoretical analysis and the review of regulatory documents, the following key findings were identified:

- Teacher initiative reflects a willingness for professional renewal and the integration of new practices, as demonstrated through active participation in training courses, digital learning, projects, and research.

- Professional autonomy, as a related quality, is revealed in the teacher's ability to independently design their development path and apply effective teaching strategies.

- The diversity of initiative manifestations includes participation in competitions and methodological work, mentoring, publication activity, engagement in professional communities, and implementation of educational innovations.

- International assessment models (CPD, OECD, UNESCO) recognize initiative as a

valid indicator of professional growth, alongside productivity, engagement, and peer impact.

- A teacher with a proactive and initiative-driven stance becomes an agent of change-both in personal professional development and in the transformation of the educational environment.

- Thus, initiative can be considered an integral and measurable indicator of CPD effectiveness and should be incorporated into teacher evaluation, monitoring, and professional growth support systems.

Discussion. Research highlights that the effectiveness of continuous professional development (CPD) should be assessed not only through formal indicators-such as training hours or course participation-but also by evaluating the teacher's level of engagement in the educational environment, their capacity to initiate change, and their ability to implement innovations (LaClair, 2015; Srinivasacharlu, 2019). Teacher initiative emerges as a key indicator that reflects intrinsic motivation, creativity, and a focus on sustainable professional growth (OECD, 2020).

In this regard, it is essential to develop and validate assessment methods that can capture and interpret educational initiatives as evidence of CPD effectiveness. Such assessment should be comprehensive, combining both quantitative and qualitative approaches, and should consider not only individual development trajectories but also the institutional impact of implemented initiatives (Zeer, 2025; Van der Klink, 2017; Ambon, 2024).

The evaluation of CPD effectiveness gains particular importance amid the transformation of the educational environment and growing expectations for teacher professional autonomy (Singh & Gupta, 2021). One of the most relevant indicators of CPD success is the teacher's educational initiative, which reflects their capacity for conscious, independent, and innovative action within professional practice. From this perspective, CPD evaluation methods should aim to determine the teacher's level of activity in designing, implementing, and disseminating their own educational ideas.

In this context, it is appropriate to apply a combination of qualitative and quantitative methods for assessing CPD effectiveness (Table 1).

Table 1. *Methods for Assessing the Effectiveness of CPD*

Description of the Evaluation Method	Role in Assessing CPD Effectiveness	Example of Application
Portfolio Analysis Method	Used to collect and analyze a teacher's professional achievements. The portfolio includes projects, publications, developments, participation in events, as well as self-assessments and reflections. It captures both quantitative and qualitative indicators such as innovation, creativity, and degree of professional growth.	Helps evaluate how the teacher develops and implements their own initiatives, adopts innovative approaches, and uses new educational technologies. Used during certification, where the teacher presents a portfolio with materials such as lesson plans, academic publications, and records of professional participation.
Content Analysis of Educational Products and Documentation	Evaluates the content, structure, and quality of educational materials created by the teacher. Also examines documentation reflecting professional activity. Focuses on innovation, methodological rigor, compliance with modern standards, and the use of new educational technologies.	Objectively assesses the quality and novelty of educational initiatives and the teacher's capacity to adapt and implement new methods. Applied to review instructional materials, digital courses, or presentations. Identifies innovation, independence, and relevance.
Expert Evaluation Method	A qualitative method based on expert judgment about the presence of specific characteristics in teaching outcomes. Experts use defined criteria and scales to assess professional growth, initiative, innovation, and sustainability of pedagogical decisions.	Useful for evaluating complex educational initiatives, such as original programs, innovative projects, or publications. Includes stages such as selecting the object of evaluation, developing criteria, training experts, conducting assessment, and compiling conclusions.
Case Analysis and Monitoring Observation	Case studies provide in-depth examination of specific teacher-led innovations. Monitoring tracks changes in the educational environment over time. These methods analyze the impact of pedagogical actions on learning outcomes, the professional environment, and student motivation.	Includes descriptive case reports, observation checklists, surveys, indicators of professional activity dynamics, and video recordings of lessons. Captures real-time implementation and effects of teacher initiatives.
Self-Assessment and Reflective Analysis Methods	Focused on the teacher's awareness of their professional experience, achievements, and challenges. Encourages critical reflection, self-directed learning, and improvement.	Uses reflective journals, self-assessment cards, SWOT analysis, and personal development maps to assess progress, motivation, and adaptability-particularly relevant in the digital transformation of education.

Thus, methods for assessing the effectiveness of continuous professional development (CPD) in the context of teacher initiative should ensure both the objectivity of measurement and consideration of the subjective, reflective components of professional growth. A comprehensive approach makes it possible to evaluate not only actual achievements but also the potential for further development (LaClair, 2015; Selevko, 2005; Adipat, 2023).

Amid the renewal of educational content and the growing importance of teacher initiative as a driving force of professional growth, there is an increasing demand for a multifaceted and valid system for assessing the effectiveness of CPD. A teacher's educational initiatives become a key indicator of their professional maturity, innovativeness, and readiness for self-development (Fernandez-Manzanal, 2015; Tyagi, 2021; Abakah, 2023).

Given the complex nature of CPD, assessment methods should be complemented by a variety of tools and clearly defined indicators that reflect both the quantitative and qualitative aspects of a teacher's initiative. Research shows that objectivity and comprehensiveness in evaluation are achieved through a combination of methods,

including portfolio analysis, expert evaluation, self-reflection, case analysis, and monitoring observation (Geldenhuys & Oosthuizen, 2015; Selevko, 2005).

The selection of assessment tools should be based on the following principles (Figure 2):

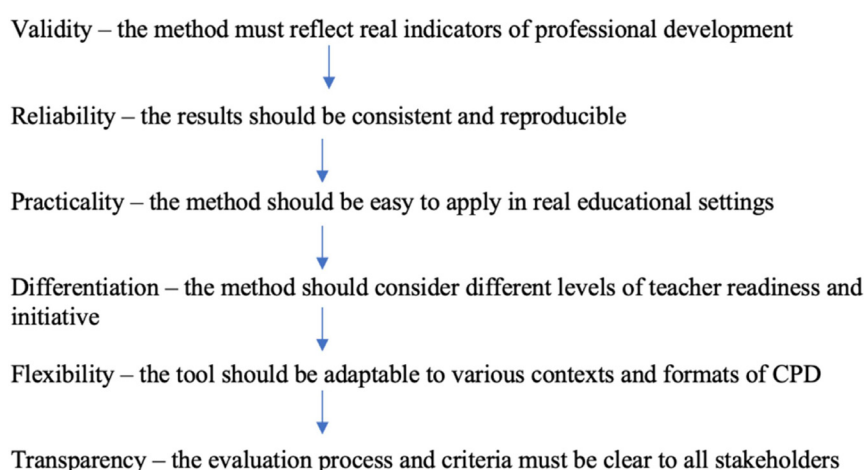


Figure 2: Principles for Selecting CPD Evaluation Tools

For example, portfolio analysis allows for the assessment of initiative effectiveness through documented achievements and educational products. Content analysis helps reveal the depth and innovativeness of the teacher's original developments. Expert evaluation provides external validation of the quality of initiatives. Self-assessment methods foster a culture of reflection, while monitoring captures the dynamics of professional development. Accordingly, each evaluation tool is linked to specific indicators that represent measurable signs of effectiveness: novelty, sustainability, scalability, impact on educational outcomes, level of awareness, and so on. These indicators are formalized into metrics that make it possible to quantitatively express the level of effectiveness (using 1–5 scales, Likert scales, binary or qualitative indicators). Thus, the integrated use of evidence-based methods, valid tools, and well-defined indicators makes it possible to establish a comprehensive CPD evaluation system. This system is aimed not only at documenting achievements but also at fostering teacher initiative as a key indicator of

sustainable professional growth (OECD, 2020). The components of educational initiatives can be assessed through motivational-value, operational-activity, and reflective-evaluative dimensions, each of which includes specific criteria and indicators (Issabayeva et al., 2024).

Conclusion. The conducted theoretical and analytical review confirms that teacher initiative serves as a key indicator of the effectiveness of continuous professional development (CPD). It reflects not only the degree of a teacher's professional maturity and autonomy, but also demonstrates their readiness for innovative thinking, the design of educational change, and the conscious transformation of their own teaching practice. Educational initiatives implemented by teachers act as markers of intrinsic motivation, commitment to self-development, and responsibility for the quality of the educational process. Integrating teacher initiative into CPD evaluation systems allows for consideration of not only formal indicators but also the deeper personal and professional processes that take place in a teacher's work. The findings suggest that enhancing the validity

and effectiveness of CPD assessment requires a comprehensive approach that combines both quantitative and qualitative methods. Especially valuable are tools that capture individual achievements, creative practices, reflective thinking, and the impact of teacher initiatives on the educational environment. Looking ahead, it is recommended to further develop valid models and metrics for assessing teacher initiative, and to integrate these approaches into systems of professional development,

certification, and internal quality monitoring. This will support the creation of a sustainable and evolving professional environment in which each teacher becomes an agent of change and an active contributor to educational innovation.

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Information about authors:

Sagymbayeva Ainur, Doctor of Pedagogical Sciences, professor, Abai Kazakh National Pedagogical University, ORCID ID: 0000-0003-3258-7558, email: aiya_c@mail.ru

Issabayeva Darazha, candidate of pedagogical sciences, associate professor, Al-Farabi Kazakh National University, ORCID ID: 0000-0002-9979-3121, email: daraja_78@mail.ru

Rakhimzhanova Lyazzat, candidate of pedagogical sciences, associate professor, Al-Farabi Kazakh National University, ORCID ID: 0000-0003-1136-3811, email: lyazatr72@gmail.com