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METRIC INDICATORS FOR EVALUATING EDUCATIONAL INITIATIVES IN THE CONTEXT OF CONTINUOUS PROFESSIONAL DEVELOPMENT OF A TEACHER

Abstract

This article is an analysis of metric indicators used to evaluate the educational initiative of a teacher in the context of continuous professional development. Using metric tools, the authors highlight the effectiveness and impact of initiatives on the professional development of teachers, highlighting key parameters within the framework of motivational-value, operational-activity and reflection-evaluation components. The work is designed to provide a systematic approach to measuring and evaluating educational initiatives, contributing to a more accurate understanding of their impact on the development of the educational process and improving the professional competence of teachers. The presented analysis of metric data contributes to the development of effective strategies to support and improve educational initiatives.

The article is devoted to the study of the influence of educational initiatives on educational practice in the context of continuous professional development of teachers. It analyzes various aspects related to the initiative such as its definition, types, components, criteria and indicators. An initiative in a pedagogical context is a form of social activity and social creativity aimed at improving the educational process. It can manifest itself in the development of new curricula, the introduction of innovative methods and technologies, participation in projects, etc. The types of initiatives in education have been clarified: methodological, technological, socio-educational, collaborative, reflective, constructive, digital, financial.

In addition, the study identifies three main components of the educational initiative for continuous professional development of a teacher: motivational-value, operational-activity, reflective-evaluative. Each of these components is characterized by its own criteria and indicators, which allows for a more detailed assessment of the effectiveness and impact of these initiatives on the professional development of teachers.

Educational initiative is an important factor in the continuous professional development of teachers. It allows them to improve their activities, improve the quality of education and create a favorable educational environment.

Keywords: initiative, educational initiative, innovation, metric, continuous professional development of a teacher.

Introduction. One of the long-term priorities of the “Kazakhstan-2050” Strategy is the development of the education system, aimed at the formation of highly qualified personnel with skills in demand in the labor market (akorda.kz, 2012).

Based on the Law of the Republic of Kazakhstan “On Education,” the structure of the education system is divided into two parts: general education and vocational education (adilet.zan.kz, 2011). In accordance with the current legislation in the field of education in Kazakhstan, one of the principles of state policy in the field of education is “continuity of the educational process, ensuring continuity of levels”, expressing a consistent transition from one level of education to another and expressed in the preservation, consistent

change and recognition of learning outcomes. Law of the Republic of Kazakhstan “On the status of a teacher”, (adilet.zan.kz, 2019), the concept of development of preschool, secondary, technical and vocational education of the Republic of Kazakhstan for 2023-2029, covering the personality of the student as a whole and aimed at its comprehensive development (adilet.zan.kz, 2023), based on the concept of development of higher education and science of the Republic of Kazakhstan for 2023-2029 (adilet.zan.kz, 2023), the activity and responsibility of the teacher has comprehensively increased.

In the context of continuously updated knowledge, the emergence of new types of schools, the birth of alternative pedagogical projects and innovative technologies, such qualities

of a teacher's personality as independence, activity, and initiative in education are becoming increasingly relevant.

An educational initiative in the process of continuous professional development of a teacher for educational practice depends on a number of factors, primarily on dynamic changes in the educational space; modern education is subject to rapid and complex changes under the influence of technological progress, socio-cultural changes and new educational requirements, therefore, the teacher needs to adapt to the environment, secondly, the strategic importance of educational initiatives; educational initiatives implemented as part of the continuous professional development of a teacher represent a strategic investment in the future of society; thirdly, there is an increasing need for effective methods for assessing the development of educational initiatives; fourthly, the issues of continuing education of teachers and the impact of educational initiatives are relevant not only from the point of view of national education systems, but also from the point of view of global competitiveness, exchange of best practices and support for sustainable development of education.

Thus, the study of the impact of educational initiatives of continuous professional development of teachers on educational practice is a relevant and strategically important area, providing the necessary knowledge for the effective development of the educational system in a modern dynamic environment.

In the context of educational initiatives for continuous professional development of teachers, the strategic importance of continuous teacher training is compliance with the requirements of modern society, effective implementation of educational innovations, improving the quality of education, strengthening professional identity; It is closely related to issues of adaptation to the diversity of the student population and the formation of an intellectual reserve. These issues require clarification of metric indicators and means of influence of strategically important educational initiatives that ensure the effective development of the educational system of continuous teacher training in the context of educational initiatives and the achievement of high standards of educational quality.

Research materials and methods. To solve the stated problems, the study used a complex of theoretical approaches. The theoretical analysis included the study of scientific, philosophical, psychological and pedagogical sources, as well as dissertation research on the problem.

Initiative in a pedagogical context. Initiative, derived from the Latin word "Initium" – beginning, in a pedagogical context is a form of social activity and social creativity (Panov V.G.,1993)

The initiative includes voluntary participation in activities both in the interests of society and in personal interests, with a creative approach to work and established behavior. Initiative is characterized by the acceptance of greater responsibility than is required by compliance with generally accepted norms. Innovation associated with an initiative may be unexpected for society, presenting the initiator with risk, since he cannot always foresee all the consequences. The contagiousness and irreversibility of changes caused by an initiative can significantly increase the authority of the initiator beyond his formal status. The effect of an initiative, whether positive or negative, depends not only on the actions of the initiator, but also on the reactions of others.

In the broad field of education, there are a number of terms such as professional development, lifelong learning, professional development, etc. Each of them may have overlapping meanings, defined by different researchers. The work of Bolam & McMahon (2004) highlights the intersection of these terms and their different interpretations. Research into theories of professional development indicates that the personal and professional development of a specialist is often provided by "educational initiatives" as a new author's activity of the subject of professional activity, representing a way of realizing self-development.

Approaches used to theoretically substantiate an educational initiative:

Innovative approach and educational initiative. In the pedagogical context, the concepts of "initiative" and "innovation" are closely intertwined. The initiative, as a form of social activity and social creativity, finds its implementation in innovative teaching

methods. Innovation, in turn, is the introduction of something new, covering the meaning, methods, technologies and content of innovative approaches.

Scientists associate *initiative with innovative teaching methods*, which include new forms of interaction between teacher and student, as well as between students and teacher. They highlight innovative teaching methods that introduce innovations into teaching practice and promote effective learning of educational material. According to scientists, Taubaeva Sh.T. (2001), innovations in education can be classified as follows: *Absolute innovation*: a completely new technology that represents the discovery of a new reality. *Updated innovation*: Significantly improved technology that represents an improvement on existing methods. *Modified innovation*: a slightly improved technology that makes changes to an existing approach. *Innovations introduced in new territory*: include technologies applied in new contexts, such as training for different regions. *Innovative technology for a new field of application*: innovative methods introduced into new educational areas. These classifications enrich the understanding of innovations in education and highlight their diversity and importance in modern teaching practice.

Activity approach and educational initiative. The activity approach in education is focused on the active interaction of the student with the educational material, active participation in the learning process and application of acquired knowledge in real situations. This approach focuses on developing students' practical skills, critical thinking, creative problem solving, and the development of social and communication competencies. An educational initiative, in turn, represents planned actions and activities with the aim of introducing new teaching methods, programs or concepts into the educational process. The initiative can arise both at the level of individual teachers or lecturers, and at the level of educational institutions as a whole. When these two concepts are combined, the educational initiative aims to introduce an activity approach into the educational process. This may include the development of new curricula, methods, the use of modern educational technologies,

practical classes and project work. An example of an educational initiative with an activity-based approach could be the introduction of project-based tasks, where students solve real-life problems, conduct research, work in teams and apply their knowledge in practice. This approach contributes to a deeper understanding of the material, the development of critical thinking and prepares students for real challenges in their future professional activities.

Synergetic approach and educational initiative. The synergetic approach, considered as a post-neoclassical interdisciplinary direction of research, becomes key in connection with open nonequilibrium and nonlinear systems. In the context of studying teacher initiative, this approach highlights important concepts: self-organization, choice, nonlinearity, bifurcation and others. It is emphasized that the development of initiative requires taking into account nonlinearity and random actions in the process of students' self-awareness (Pahomov N.N., & Tuptalov Ju.B., 1992).

Educational Initiative and Theory of Change. The educational initiative is based on a theory of change that represents a collaborative and results-oriented approach to planning, evaluating and strengthening organizational capacity. This theory identifies all the necessary building blocks to achieve a specific short-term goal (www.theoryofchange.org). The process of developing a theory of change includes the formation of "theories of initiative" and "logical models".

Theories of professional development and educational initiative. Research by scientists such as (Abul'hanova-Slavskaja K.A., 1980) and (Slastenin V.A., & Mishhenko A.I. (1991), as well as foreign scientists, reveals the essence of educational initiative and its connection with the personal and professional development of teachers. Analysis of models of professional development emphasizes the importance of external and internal conditions for the formation of pedagogical professionalism.

Impact of educational initiatives and development prospects. Research shows that educational initiatives directly influence the quality of educational practice. Deviation from the choice point takes into account the synergistic approach and requires adaptation to

non-linear and random actions. The hermeneutic perspective emphasizes the internal potential of individual activity, emphasizing the role of reflection.

The concepts of “*educational initiative*” and “*pedagogical initiative*” denote important aspects of the active role of teachers in improving the educational process. The educational initiative includes a wide range of activities aimed at improving the educational environment, including participation in the development of new programs, the introduction of innovative technologies and participation in projects. Pedagogical initiative, on the other hand, focuses on specific teaching strategies, including the creation of new teaching methods, individual approaches to students and the constant desire to improve one’s professional practice. The pedagogical initiative focuses on methodological and technological aspects, helping to increase the efficiency of the educational process. In the field of education, there are several types of initiatives, each of which contributes to improving the quality of education.

Initiatives, being a source and mechanism, become an integral part of the development of education. Educational and pedagogical initiatives, together with innovations, create favorable conditions for the continuous improvement of the educational system and increasing its quality. Thus, the combination of initiatives and innovations in pedagogy creates a dynamic environment that promotes continuous improvement of the educational process and supports the progressive development of education as a whole.

Let’s consider the components of pedagogical initiatives.

Methodological initiatives are aimed at quickly and effectively achieving a high level of education. For example, changing the content, methods and organization of teaching within a particular subject, creating the best conditions for students.

Technological initiatives, summarizing the experience of successful application of new methods in the educational process, teachers can offer their technologies at the school level. For example, the introduction of new educational technologies that improve learning efficiency.

Socio-educational initiatives are developing new educational practices with new goals, content and management systems, covering several socio-pedagogical structures. They are associated with the changing role of education in society.

Currently, attention and activity in publications is increasing in connection with the problem of actualization, especially in the context of a socio-pedagogical initiative, which is a factor in the formation of educational reality (Usol’cev A.P., & Antipova E.P., 2019). A.N. Makhinin presents an approach that reveals the procedural and activity-based nature of the initiative through three aspects: 1) initiative-proposal; 2) initiative-action; 3) initiative-position (Mahinin A.N., 2019).

From a study of individual initiative conducted by G.A. Shurukhina, we can identify generalized characteristics of initiative as an individual’s ability to take conscious, purposeful, active social action; forms of expression of the sociocultural needs of the individual; subjective and socially significant basis for self-realization of the individual and his professional active work [Shurukhina G.A., 2013).

T.B. Solomatina and S.V. Nasibova consider initiative as a moral quality of a person, the ability to express innovative ideas in work, motivation for new manifestations of activity (Solomatina T.B., & Nasibova S. V. (2008). Initiative is presented as a strong personality trait that determines a sustainable desire for initiation, and initiative is presented as the initial activity of the individual, expressed in a non-standard form, capable of achieving new goals and solving new problems for both society and the individual (Kosacheva E.P., 1999).

It is important to emphasize, especially in the context of pedagogical activity, that initiative is a personal property that combines cognitive and motivational factors that can manifest themselves in pedagogical research and development, as well as influence the transfer of acquired pedagogical knowledge.

Contemporary research by Chanchal Tyagi and others has highlighted various types of pedagogical initiatives that play an important role in improving the educational process. Let’s consider the main types of highlighted initiatives (Tyagi, Chanchal & Misra, Pradeep. 2021).

Joint initiatives imply cooperation and joint activities of various educational stakeholders - teachers, students, parents, administration and other interested parties. For example, developing educational programs together with students and their parents to better meet the needs of students.

Reflective initiatives involve educators continually learning and reflecting on their practice, accepting feedback, and striving for improvement. For example: Regular self-reflection sessions and sharing experiences with colleagues to identify successful practices and areas for improvement.

Constructive initiatives, pedagogical actions aimed at building a positive and effective educational process. For example: Introduction of new teaching methods focused on effective learning by students.

Digital initiatives, the introduction of modern digital technologies into the educational process. For example: The use of interactive electronic educational materials and educational applications.

Financial initiatives related to the management and distribution of financial resources within an educational institution. For example, developing budget strategies for optimal use of funds for educational needs.

Each of these types of initiatives plays a role in facilitating the educational process, providing a variety of ways to improve teaching practice and ensure quality education.

Educational initiatives can be defined as an attempt to explore new pedagogical ideas, facilitate and accelerate student learning, improve their literacy and use some learning tools to create an inclusive learning environment (Darling-Hammond L., Hyler M.E., & Gardner M., 2017).

For example, David Jones, Shock Hargreaves, introduces the concept of educational initiative, describing it as an area of activity aimed at increasing student achievement, improving educational processes and changing the culture of educational institutions (https://www.abebooks.com/servlet/BookDetailsPL?bi=30838384494&searchurl=an%3Dhargreaves%2Bdavid%2Bh%26sortby%3D17&cm_sp=snippet-_-srp1-_-title2).

An educational institution can be an educational society that promotes human

education, and, consequently, its transformation, complication - development. In this sense, it is important to focus on educational initiatives that are active and activate social interaction in the future. Educational initiatives play an important role in the educational space, defined as follows:

- updating the forms, methods and content of educational activities;

- strengthening the education of children and youth;

- solving social problems using pedagogical means (working with families, students with disabilities, preventing deviant behavior);

- influence on the formation of state policy in the field of education;

- social protection of education workers;

- formation of an authoritative professional teaching community.

The educational initiative of the teacher, resulting from the analysis of scientific literature, covers diverse aspects of personal and professional development. The personal aspect includes self-knowledge and intrapersonal conflicts, stimulating the process of self-development. By developing his creative potential, the teacher overcomes difficulties and forms a system of pedagogical relations (Abdalina L.V., 2008). The existential aspect is reflected in the desire for new opportunities and growth through professional dialogue. The acmeological aspect is manifested in the desire to reach the heights of professionalism and the formation of one's professional path. The axiological aspect emphasizes the importance of initiative in transforming knowledge and improving activities [Chervonnyj M.A., Igna O.N., & Jakovlev I.N., 2023). The criteria of motivation, operational activity and reflection highlight important aspects of initiative corresponding to the individual, acmeological and existential dimensions. An educational initiative based on these aspects helps improve the quality of education and create a favorable educational environment.

Analysis of academic literature gives an idea of the teacher's educational initiative, considered as a result of his personal and professional development, and also highlights key aspects: personal, existential, acmeological and axiological.

The personal aspect covers the revelation of the true, real, contradictory essence of the teacher, where internal conflicts can contribute to the process of self-knowledge and self-understanding. The teacher must be aware of multiple ways of expressing oneself, which enhances the possibilities of interaction with others. The state of professional activity and the activation of creative potential make it possible to overcome obstacles in the implementation of initiative projects and the achievement of set pedagogical tasks. The creation of a system of pedagogical relations with various aspects of the educational process becomes the result of the realization of professional potential. The personal aspect of professional initiative is manifested in solving problems such as self-awareness, reflection, the formation of self-regulation mechanisms, emotional maturity and stability of the individual as a responsible subject.

The existential aspect is reflected in the search for new opportunities for growth and the perception of new prospects in the profession through the professional dialogue “teacher-student”. These processes allow the teacher to go beyond standard behavioral patterns.

The acmeological aspect of the educational initiative is associated with the desire to reach the heights of professionalism. Moving to the heights of personal and professional development requires effort and dedication.

The axiological aspect of the initiative corresponds to the tasks of transforming professional knowledge and improving professional activities. The support of the leadership of an educational institution plays a key role in the manifestation of initiative, which serves as an indicator of the development of the personal and professional maturity of the teacher. The criteria for motivation, operational activity and reflection include important aspects of individual, acmeological and existential dimensions.

Results and discussions. Based on the above approaches and aspects of the teacher’s educational initiative, the criteria of his professional activity and independent improvement and change, readiness to implement the initiative is divided:

- *the motivational-value component* includes initiative in the development of new educational

materials, the search for innovative methods and technologies: readiness to learn new educational approaches can be manifested through participation in professional courses, trainings, independent study of literature, the ability to set goals and objectives implies the formulation of clear plans for development and training, awareness of the impact of an educational initiative on the quality of education implies an understanding of the importance of making changes to the educational process, willingness to cooperate is expressed in a willingness to work in a team, exchange experience and jointly develop educational projects, openness in interpersonal relationships implies a willingness to share one’s experiences and accept the experiences of others, creating an open and supportive learning environment.

- *the operational-activity component* includes the active introduction of new teaching methods into practice; it includes not only knowledge of new approaches, but also their successful adaptation to specific learning conditions: the development and use of one’s own educational methods implies a teacher’s creative approach to the creation of materials and tools for teaching; continuous improvement of teaching methods in accordance with progressive trends involves adaptation to the changing requirements of the educational environment; the desire to achieve the heights of professionalism is associated with a constant desire for self-development and advanced training; flexibility in the application of new educational practices implies the teacher’s ability to adapt to rapidly changing conditions and requirements; effectively overcoming difficulties in implementing educational projects emphasizes the ability to solve problems in real time.

- *the reflective-evaluative component* includes regular self-analysis and identification of difficulties in educational practice, which presupposes constant attention to one’s own activities: a deep understanding of the roots of emerging difficulties requires analysis of not only external manifestations, but also internal factors; adequate self-assessment of professional competence implies an objective perception of one’s achievements and problems; openly recognizing one’s strengths and weaknesses emphasizes honesty and a willingness to grow;

the ability to critically comprehend the results of the educational process includes the ability to analyze and generalize experience; the development of the meaning of teaching activity and the formation of one's own professional path

is associated with awareness of the significance of one's role in the educational process.

Based on the above components, the criteria and indicators of the teacher's educational initiative were determined (Table 1).

Table 1. *Criteria and metric indicators of a teacher's educational initiative in continuous professional development*

Component	Criteria	Metric indicators
Motivational-value (initiative-proposal)	Striving for a change in experience	implements new approaches in its own educational practice
	Learning new knowledge under obstacles	actively participates in various forms of non-formal and informal education
	Setting goals for self-education	develops his own professional development trajectory
	Acceptance of the value of the educational initiative	consciously participates in the promotion of educational initiatives at the level of educational organization
Operational-activity (initiative-action)	Openness to cooperation in the professional community to promote educational initiatives	actively interacts with colleagues, exchanging experiences to promote educational initiatives
	Expanding and updating subject knowledge in the field of educational initiatives	improving own educational practice in the context of promoting educational initiatives
	Integration of educational initiatives into educational practice	renewal and modernization of educational practice
Reflective-evaluative (initiative-position)	Interaction with colleagues to promote educational initiatives	participation in professional communities
	Awareness and overcoming of one's own difficulties in professional activities	reflects the quality of professional activity and forms his own experience of improving it
	Evaluation of the results of personal and professional achievements	compiles and expands a portfolio of achievements
	Adequate self-assessment of professional competence	effectively participates in self-assessment practice and uses its results for professional development
	Monitoring the quality of development of the educational organization in which he works	develops and implements recommendations to improve the activities of educational organizations

Conclusion. In this study, innovative, activity-based and synergetic approaches, as well as theories of change and professional development, are used to reveal the essence of the concept of educational initiative. The authors, analyzing theoretical literature, present the educational initiative of the teacher as a result of his personal and professional development. Within the framework of the identified key aspects, such as personal, existential, acmeological and axiological, various aspects of the impact of initiative on a teacher are considered.

In addition, the study identifies three main components of the educational initiative for continuous professional development of a teacher: motivational-value, operational-activity, reflective-evaluative. Each of these components is characterized by its own criteria and indicators, which allows for a more detailed assessment of the effectiveness and impact of these initiatives on the professional development of teachers.

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