

Criteria-based assessment: the formation of assessment activities for teachers

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Abstract

The changes in the contemporary world require teachers to develop new teaching approaches. These requirements can only be met with improvement in teachers' professional training and assessment activities. Assessment activities are a key aspect of professional competence in the education process. Teachers and their students from the first gymnasium in Petropavlovsk participated in the study. The study employed a mixed-method approach over three years. The study aimed to answer seven research questions grounded in the literature by developing a training program and experimentally testing it among teachers. At the onset of the program, all teachers were at the critical (lowest) level for the formation of assessment activities. With consistent training and support, the teacher's level of formation improved significantly, even to the optimal (highest) level. The study revealed four components of evaluation: motivational; informative; technological; and reflexive. These components were embedded in various criteria, indicators, and research methods. The study also revealed the questions commonly asked by teachers during the assessment and when engaged in student participation. This is the only study that has simultaneously examined teacher competence, interdisciplinary assessment methods, teacher development, and student cognition. The theoretical and practical implications of the study are discussed.

Keywords: Assessment activity; assessment evaluation; pedagogical activity; teachers

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1. INTRODUCTION

In his address to Kazakhstan's people, President Nazarbayev called for reforms in the education system to support the fourth industrial revolution (Nazarbayev, 2018). Since then, researchers and practitioners have been seeking ways to create a shift in educational priorities toward functional literacy, critical thinking, and creativity (Turganalina, 2020), creating a need for academic assessment. According to Nazarbayev (2018), these reforms include reviewing teachers' development approaches and assessment activities. Educational assessment activities aim to evaluate students' understanding of the material and their ability to utilize the knowledge (Shakirov et al., 2012) and help teachers follow students' progress promptly (Reynders et al., 2020). Therefore, it is vital to examine the reforms' progress in the context of criteria-based assessment in the Republic of Kazakhstan at the scientific and pedagogical level.

The current study examines the academic assessment activities within the criteria-based model. Criteria-based assessment is the evaluation of students' academic achievements (Sadler, 2005). In the model, the student's knowledge, skills, and abilities are prioritized to achieve competence (Kanatovna & Jumakhmetovna 2020; Sadler, 2005). Criteria-based assessment creates a balance between the students' formation of educational and cognitive competence based on the purpose and content of the education (Sadler, 2005). Teachers define the students based on their personalities, communication skills, and awareness of their environment (Kanatovna & Jumakhmetovna 2020; Turganalina, 2020). Therefore, for effective reforms, the focus should be on teachers' professional training (Masimova, 2019; Nikmard et al., 2022) in the criteria-based assessment model. According to Masimova (2019), teachers' assessment activity formation requires professional development conditions. The research aims to examine when and how teachers' professional training develops their assessment activities.

This study contributes to the literature on the assessment activities framework. Previous studies examining assessment formation have examined teacher competence (Taubaeva, 2000), inter-disciplinary teaching methods (Almuhambetov, 2002; Lunina, 2016), methods of teacher development (Ospanbekova et al., 2016; Shalashova et al., 2018), and student cognitions (Buzaubakova et al., 2021; Sartayeva et al., 2018). These studies have mainly focused on the changes in teacher training methods and ways of increasing their mastery. However, to adapt to modern teaching methods, teachers require new techniques that promote students' qualitative learning outcomes (Shalashova et al., 2018). Through in-depth analysis, the current study simultaneously examines teachers' competence and knowledge of the tools required to assess students to suggest practical training options for Kazakhstani teachers.

The study also contributes to the criteria-based model literature. In 2016, a renewed curriculum was adopted in all Kazakhstani mainstream schools (OECD, 2015). The criteria-based assessment adopted represented a large-scale reform to assess the country's curriculum at all academic levels (OECD, 2015; Turganalina, 2020). All teachers transitioned from traditional methods of assessment to criteria-based assessment (CBA). Empirical studies have revealed that the implementation of the criteria-based model in Kazakhstan has faced many challenges, including inadequate teacher training (Kanatovna & Jumakhmetovna 2020), a decline in students' motivation (Orehova et al., 2019), increased workloads (Abdrakhmanova, 2017), and inadequate tools for identifying gifted students (Bondarenko, 2019; Shinkai et al., 2018). There have been several calls to examine how to improve the monitoring and evaluation of students in the context of criteria-based assessment. The current study responds to this call by developing a training program and experimentally testing it among teachers. The remainder of this article is structured as follows. The next section provides a review of the literature, focusing specifically on criteria-based assessment in Kazakhstan and the formation of teachers' assessment activity, leading to the development of seven research questions. This is followed by details of the methods adopted. The subsequent section provides the results of the study, which is followed by a section discussing these results. The paper concludes with a section detailing the conclusions and implications.

1.1. Literature review

1.1.1. Criteria-based assessment in Kazakhstan

Assessment is critical in learning as it evaluates students' understanding of the material and their ability to utilize the knowledge (Reynders et al., 2020). Recent reforms have affected the assessment of goals, content, and technologies in Kazakhstan's schools (OECD, 2015). Previously, teaching focused on memorizing and reproducing knowledge and facts (Kanatovna & Zhainash, 2020); however, this learning mode has become largely redundant in the wake of globalization and digitalization processes that have dramatically altered international pedagogical approaches (Ibragimkyzy et al., 2016; Lunina, 2016; Lv et al., 2024; Wijnen et al., 2024). Researchers and policymakers are now investigating ways to shift educational priorities toward practical educational assessment to boost student literacy, critical thinking, and creativity (Almuhambetov, 2002; Ibragimkyzy et al., 2016; Lunina, 2016; Huang et al., 2022).

Kazakhstan initially used the five-point grading system conforming with the government's aim of developing specialists for specific careers or industries especially doctors (Burkhalter & Shegebayev, 2012; Yakavets, 2014). This five-point grading system, however, faced various challenges. Empirical findings revealed that the five-point grading system lacked objectivity (see, for example, Shamatov, 2015; Winter et al., 2014) required in the modern system. For instance, an examination of the teaching methods in Kyrgyzstan revealed that there was no structured way of assessing students (Shamatov, 2015). Further, every school had developed its assessment system that departed from the five-point grading system. Winter et al.'s (2014) assessment of high schools in Kazakhstan revealed that some principals awarded four grades instead of five, which was not sufficient to gauge student progress. With these challenges in mind, the government commissioned the criteria-based model of assessment.

In Kazakhstan, criteria-based assessment is aimed at balancing the students' formation of educational and cognitive competence (Sadler, 2005) in line with international standards (Duisembekova, 2013; OECD, 2015). Criteria-based assessment comprises formative and summative evaluation measures (Alonzo et al., 2019). Summative assessment summarizes students' knowledge at a given learning stage, such as at the end of a section, unit, or module when they undertake a final test. Formative assessment determines students' ongoing knowledge during a lesson and summarizes their cognitive aspects, such as their personality (Alonzo et al., 2019). According to Kanatovna and Jumakhmetovna (2020), formative assessment enables teachers to track students' progress and amend the lessons to their advantage.

Criteria-based assessment requires collaboration between teachers and students (Reynders et al., 2020). Criteria-based assessment is also correlated with the actual outcome that students achieve about the potential effect of specific criteria (Iskakova et al., 2018). According to Berezhnaya (1998), this type of assessment simultaneously enhances subject-object relations based on the concepts of proficiency in education and personal development. The teachers define the purpose of the topic and guide students by presenting them in a single, harmonious pattern. The teachers have predefined expected results and motivate students to aim for higher scores (Turganalina, 2020; Volkovinskaya, 2008). After assigning various tasks during lessons, the teachers initiate the transition from teacher-student external feedback to internal feedback, refocusing the students on the current topic. Through criteria-based assessment, students develop teamwork, self-monitoring, and self-evaluation skills, which hastens their learning. Evaluating their classmates through team activities improves students' perception of criticism and increases their self-confidence (Kanatovna & Jumakhmetovna 2020; Turganalina, 2020).

Adoption of the criteria-based model in Kazakhstan is, however, still slow, despite implementing professional development programs for teachers (Turganalina, 2020). Without professional development and everyday practices related to the formation of assessment activities, the criteria-based assessment system's potential might never be realized (Bondarenko, 2019).

1.1.2. Formation of teachers' assessment activity

Various assessment activities have been proposed over the years, such as the unison students' response system (Andersson & Palm, 2017). These assessment activities are always familiar to the teachers and are meant to create clarity during lesson delivery (Wiliam, 2011). Teacher assessment activities are geared towards providing three types of information to students: their current knowledge base; their learning goals; and how to achieve these goals (Carless & Boud, 2018; Veldhuis & van den Heuvel-Panhuizen, 2020). These assessment activities require collaboration between teachers and students. The teachers provide feedback on the student's progress during and after the lesson (Carless & Boud, 2018). Students focus on achieving their learning goals by participating in classroom discussions and learning tasks (Wiliam, 2011).

For teachers to form effective assessment activities, they require knowledge and adequate support (Wiliam, 2011). Furthermore, student assessment reform is an ongoing process influenced by different factors, such as teacher competence, personality, and workload (Turganalina, 2020). Therefore, continuous professional development and support are essential both for students and teachers. In their three-year longitudinal study of three schools, Furtak et al., (2016) found that professional development improved teachers' assessment abilities. On the contrary, other studies have revealed that teachers' professional development does not always lead to the envisioned results. Randel et al., (2016) investigated 231 teachers using a predefined assessment system. They found that students' performance did not improve, even after teachers were trained in different assessment strategies. Randel et al., (2016) concluded that teachers' assessment practices were too general and only partially implemented.

Researchers have developed various means of evaluating the quality of professional development that aim to ensure that assessment programs are implemented optimally (Randel et al., 2016) and are beneficial in the long term (Furtak et al., 2016). These evaluation methods emphasize that development programs must focus on the lesson content (Kennedy, 2016) and help teachers motivate student thinking (Bennett, 2011). Development programs should carry out an in-depth analysis of the content, including the key concepts, skills, models, and strategies that have evolved over the years (Veldhuis & van den Heuvel-Panhuizen, 2020). These development programs must also reflect on students' reactions to various assessment activities and promote engagement (Veldhuis & van den Heuvel-Panhuizen, 2020). Such efforts can only be sustainable if professional development occurs over a prolonged period (Turganalina, 2020; Veldhuis & van den Heuvel-Panhuizen, 2020). In summary, teachers' assessment activity should aim to match educational goals with the results. Teachers' assessment activity identifies students' values (Seleznev, 1997), raises cultural sensitivity (Volkovinskaya, 2008), and develops students' self-evaluation skills (Ksenzov, 1999). Several researchers have concluded that teachers should assess students' actions in class to achieve the desired results (Balandina, 2007; Ksenzov, 1999; Volkovinskaya, 2008).

Assessment activity is a tool that compares the knowledge, skills, and abilities that an individual has at present with those they should ultimately possess (Polonsky, 1981; Shakirov et al., 2012; Capone et al., 2024). Various researchers have examined systematic teacher activities in multiple contexts. For example, Bychik (2013) and Kerer (2009) considered teacher assessment activities as multi-level and multi-component processes that indicate high school students' readiness. Degaltseva (2017) evaluated university- and college-level teacher assessment activity as an integrative structural element of professional and pedagogical competence. Smirnova (2005) noted that teachers' assessment activity was meant to boost self-assessment and academic performance. According to Smirnova (2005), during the student's final evaluation, assessment activities determined the students' level of communication in conditions of value judgment and emotional excitement, thereby developing their cognitive level. Based on these findings, the current study examines students' actions during the educational process in relation to their ultimate success. In the definition of the main concepts of our research problem, we use the approaches that are common in pedagogy and psychology as a system: activity; axiological; and synergetic (Grant & Gillette, 2006).

The formation of assessment activity is essential in catalyzing reforms in Kazakhstan. Many student lessons consist of three aspects: identification of the problem under discussion; the knowledge, rules, and principles

of the subject (normative); and the dialectic or disputation of the problems within the subject’s framework (Bol, 2015; Gore, 2001; Huber & Skedsmo, 2016; Sadler, 2005). Teachers’ assessment activity builds on students’ social needs (Kanatovna & Jumakhmetovna 2020; Turganalina, 2020) and global academic standards (OECD, 2015). The formation of assessment activities has various functions. They play a normative function in determining students’ achievements and education level, as well as teachers’ work quality. These assessment activities provide information and diagnose the knowledge gaps, providing avenues for communication among students, teachers, and parents. They also structure the educational purpose, define methods to achieve these educational purposes, adjust pedagogical relationships, and provide insights into new teaching methods (Lampert & Graziani, 2009; Ye et al., 2022).

Teachers’ assessment activities are based on six principles. The first of these principles is “purposefulness”, in which the relationship between the teacher and the student in the education process is based on learning goals aligned with the curriculum. The second principle is that of “objectivity and justice”, whereby specific assessment criteria are created based on the lesson goals. The third principle is “humanity”, which recognizes the values and uniqueness of every student. The fourth is the “observation of national values” (Kazakhstan’s patriotism, civic responsibility, respect, cooperation, work and creativity, openness, and life-long education). The fifth principle is “health protection”, which entails creating assessment tasks based on students’ characteristics (age, gender, and disabilities). These provide students with different tasks aligned with their capabilities and consider their psychological state during value judgment. The sixth principle is the “person-centered principle”, which evaluates each student’s abilities and assesses achievement levels in the education process.

This study examines the formation of assessment activities among teachers and their impact on the criteria-based assessment system. The formation of assessment activities includes internal assessment (involving students, parents, teachers, and the administration) and external assessment (involving the government and other agencies outside the institution). The program examines the five assessment approaches (traditional assessment, criteria-based approach, test-assessment approach, cumulative assessment approach, and rating assessment approach) to ensure that all the aspects are implemented. The traditional assessment uses the five-point grading of students’ knowledge and skills (Turganalina, 2020; Yakavets, 2014). The criteria-based assessment allocates marks based on the level of skill formation and universal educational activities; these marks are then converted to a five-point score (Bondarenko, 2019; Sadler, 2005; Turganalina, 2020). The test assessment uses tasks as controls to examine students’ competence level (Torrance, 2007). In the cumulative assessment approach, tasks can be either mandatory or optional; the scores are based on students’ implementation of tasks and each task’s score is added to the previous score to achieve a final mark (Lee, 2018). Finally, the rating assessment approach is based on peers’ or experts’ subjective opinions (as a judge). When students respond to a question, peers or experts give them a score, and these scores accumulate over time (Chang et al., 2020). Table 1 shows the Formation of assessment activities’ study components, criteria, indicators, and research methods.

Table 1

Formation of assessment activities’ study components, criteria, indicators, and research methods.

Components (1)	Criteria (2)	Indicators (3)	Research methods (4)
Motivational and objective	<ol style="list-style-type: none"> 1. The presence of objective and motivational relations in assessment activity. 2. Objective-oriented assessment activity. 3. Desire to develop assessment activity. 	<ol style="list-style-type: none"> 1. Interest in the organization of educational processes and assessment activities. 2. The inclination to find and use pedagogical methods to eliminate obstacles. 3. Determination of the stages of the non-stop development of knowledge. 	T. Ehlers’s “Diagnostics of a person’s motivation for success”.

Informative	<ol style="list-style-type: none"> To understand the whole assessment process. Methodical culture. The presence of practice in the organization of the assessment process. 	<ol style="list-style-type: none"> Design of assessment activity based on the assessment system's goals, objectives, and principles. Skills to determine the methodological foundations for activities and knowledge of the mechanisms of formative and summative assessments. Skills to design the learning process. 	<ol style="list-style-type: none"> Comprehensive program. Questionnaire to identify the teachers' level of comprehension of assessment activity. Questionnaire to identify the areas of difficulty for teachers in the assessment.
Technological	<ol style="list-style-type: none"> To know effective educational methods in the context of the new content of education. Ability to organize assessments. Use of communication skills in evaluation. 	<ol style="list-style-type: none"> Ability to collect feedback and deliver formative assessments. Skills in step-by-step evaluation. Convey value judgments without negative repercussions. 	V. V. Sinyavsky and V. A. Fedorishin's "CBS-1" method.
Reflexive	<ol style="list-style-type: none"> The ability to target the education process. The ability to plan the students' success. The ability for self-reflection. 	<ol style="list-style-type: none"> The ability to create lesson targets within the framework for educational targets. The presence of critical thinking and analytical skills. Analysis of self-evaluation activities. 	A.V. Karpov's diagnostic method to determine the level of development of personal reflection.

1.2. Purpose of study

This study examines the formation of assessment activities among teachers and their impact on the criteria-based assessment system. In light of the above discussions, the following research questions were developed to examine the formation of assessment activities among teachers in Kazakhstan:

RQ1. What are the components, criteria, and indicators of teachers' assessment activity for the new educational content?

RQ2. What is the level of the formation of assessment activity among teachers in Kazakhstan?

RQ3. What are the student's achievements at the end of the program?

RQ4. What do teachers consider when assessing students?

RQ5. What is the frequency of students' involvement in the assessment process?

RQ6. What questions do teachers ask students during the evaluation process?

RQ7. What is the level of proficiency in assessment activities?

2. METHODS AND MATERIALS

This study used a mixed-method approach to examine the formation of assessment activities in Kazakhstan. This approach included using the theoretical method, whereby literature and materials were analyzed and compared for generalizability. The study also used an empirical approach, whereby participants responded to questionnaires.

2.1. Participants

Teachers and students in the first gymnasium in Petropavlovsk participated in the study. The participants were recruited through a snowballing approach. All participants were informed that the research aimed to examine the strategies they used in their teaching practice. They were also told that participation in the study

was voluntary and that they could leave at any stage. Furthermore, they signed consent forms that had been prepared following the school's ethical standards.

2.2. Procedure

The formation of the assessment activities progressed through three steps:

- (1) *Problem-search stage (2017–2018)*. Researchers analyzed the literature and identified the main approaches used to improve teachers' evaluation activity. All the procedures were summarized and examined based on the study's conceptual design.
- (2) *Experimental-search stage (2018–2019)*. The researchers systematically examined teachers' existing assessment strategies and found alternative activities to improve their evaluation. The researchers determined the composition and content of the concepts and selected the strategy that would be implemented in the study based on the literature. The researchers implemented the methodological conditions for improving the evaluation activity by creating working groups, implementing assessment methods, participating in courses, carrying out follow-up analysis and introspection, developing evaluation activities, and initiating master classes.
- (3) *The final/summary stage (2019)*. The researchers collected the cumulative results and clarified the conclusions. The researchers tested the conditions that were introduced to improve teachers' evaluation activities. These conditions were then retested to evaluate the teachers' proficiency and implementation criteria.

2.3. Data collection instruments

The following measures were adopted in the present study:

- *Traditional assessment*. The participants were rated on a five-point criterion scale to express the score (the number used in official documents).
- *Criteria-based assessment*. The participants' projects were assigned points (from 0 to 3) based on their skill formation and universal educational activities. The criteria scores were then converted to a five-point score.
- *Test assessment*. All participants were given tasks that would act as a control for the other forms of assessment.
- *Cumulative assessment*. The participants were informed that the tasks were optional. The participants were awarded scores based on how well they completed these tasks. The scores from all the tasks were then accumulated into one final score at the end of the assessment.
- *Rating assessment*. The participants responded to qualitative questions during lessons, and their responses were rated by experts. The participants received a score for participation and for answering questions correctly. All the points were summarized at the end of the school year based on the rating system provided.
- *Formation of assessment activities*. Participants rated their assessment level at the beginning (first stage) and end (the third stage) of the training program (sample question, "What do we evaluate?"). These questions were adapted from previous studies (Barbot et al., 2012; Loewenberg Ball & Forzani, 2009).

2.4. Analysis

The data were collected, cleansed, and analyzed based on a holistic approach to ensure their reliability. The analysis also examined the methodological validity of the initial level of assessment activities, using a set of research methods deemed adequate in terms of tasks and logic.

3. RESULTS

The results revealed that the three-year training program aimed at forming the teacher's assessment activities was sustainable in the long run. The development and analysis of the training program also answered the research questions formulated earlier.

3.1.RQ1. What are the components, criteria, and indicators of teachers' assessment activity for the new educational content?

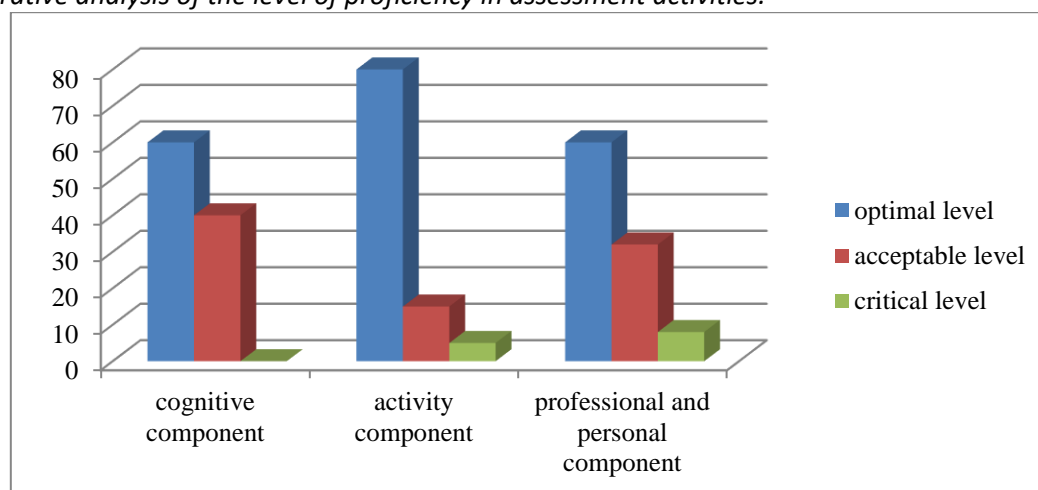
The study revealed four components: motivational/objective; informative; reflective; and technological. These components were aligned with the student's study components, criteria, indicators, and research methods.

3.2.RQ2. What is the level of the formation of assessment activity among teachers in Kazakhstan?

As shown in Figure 1, in the first stage of the program, the teachers' level of assessment formation was at 87%. The teachers then participated in a three-year training program that assimilated topics including the structural components of control and the evaluation function. At the end of the program, 45% of teachers understood the criteria-based model, 70% mentioned that assessment activities were significant, and 20% noted that assessing each student's performance improved parents' overall evaluation of the school management. A total of 40% of teachers paid attention to the fact that they should consider student characteristics during the assessment.

Figure 1

Comparative analysis of the level of proficiency in assessment activities.

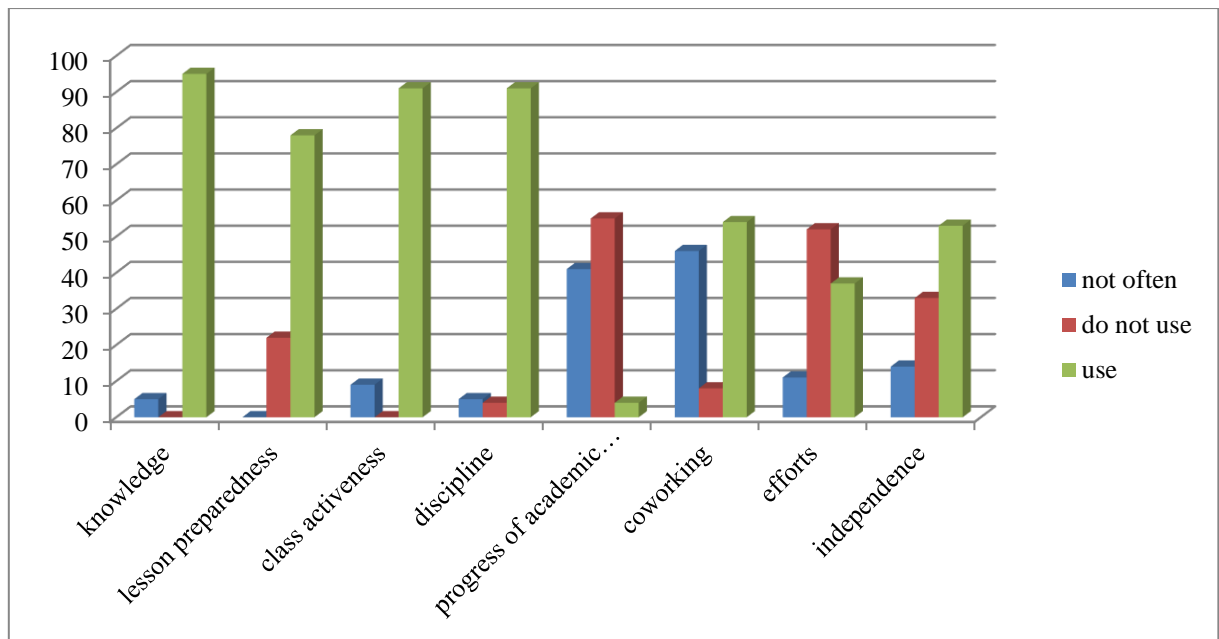


3.3.RQ3. What are the student's achievements at the end of the program?

As shown in Figure 2, the student's achievements were evaluated based on their knowledge acquisition, lesson preparedness, class participation, discipline, academic progress, teamwork, effort, and independent study. The most significant achievements were in knowledge acquisition (70%), class participation (69%), and discipline (69%). The least significant achievements were in academic progress (0.1%), effort (39%), and independent study (45%). Therefore, the training program created positively affected student performance.

Figure 2

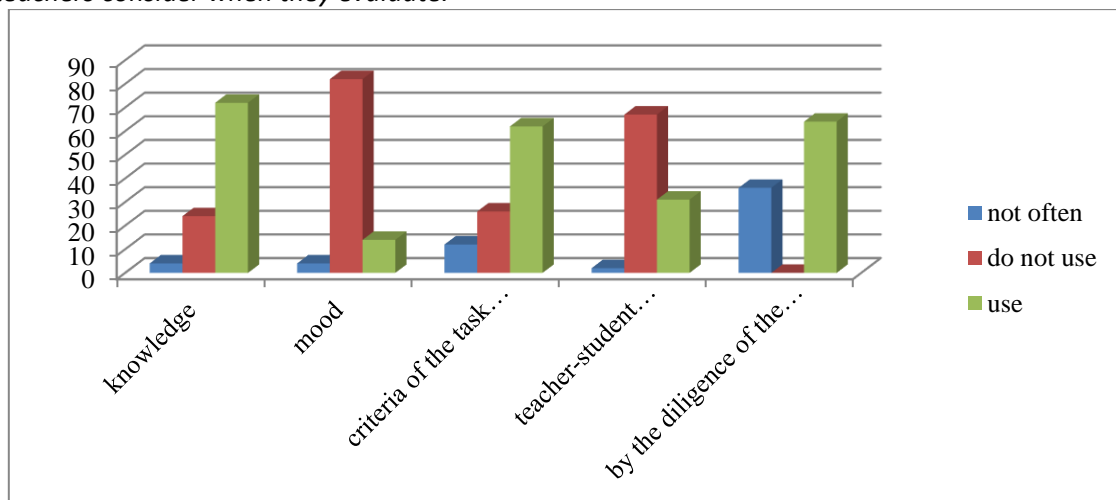
Achievements of students after the training program.



3.4.RQ4. What do teachers consider when assessing students?

As shown in Figure 3, the teachers considered knowledge, mood, task implementation, teacher-student relationship, and diligence when assessing students. The students scored highly in knowledge (80%), task implementation (60%), and diligence (60%), but performed poorly in the teacher-student relationship (28%) and mood (10%).

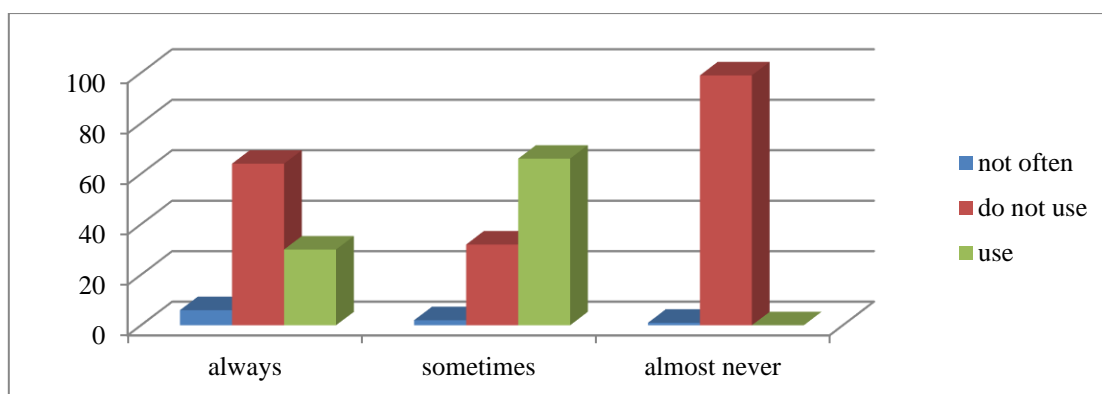
Figure 3
What teachers consider when they evaluate.



3.5.RQ5. What is the frequency of students' involvement in the assessment process?

As shown in Figure 4, the students were rarely involved in the assessment process (98%).

Figure 4
How often do children participate in assessment processes?

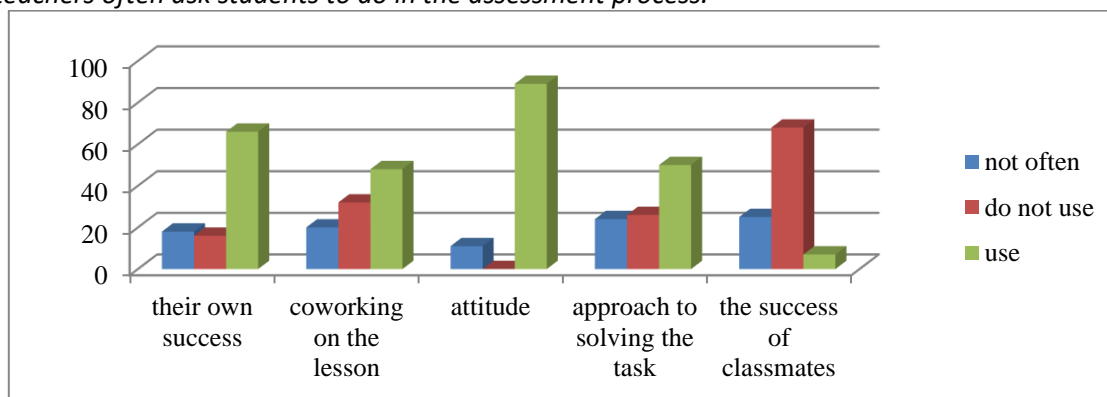


3.6.RQ6. What questions do teachers ask students during the evaluation process?

As shown in Figure 5, during the evaluation process, teachers often asked questions related to students' attitude (88%), their success (65%), and their approach to solving a task (48%), but rarely asked questions regarding the success of their classmates (5%).

Figure 5

What teachers often ask students to do in the assessment process.



3.7.RQ7. What is the level of proficiency in assessment activities?

The findings revealed that the formation of teachers' assessment activity was adequate at all levels of formation. In the first stage of the program (problem-search stage; 2017–2018) and the final stage of the program (the final summary; 2019), teachers rated their level of proficiency in assessment activities. There were three assessment-activity levels: the optimal level; the acceptable level; and the critical level. These levels varied based on the cognitive component, activity component, professional component, and personal component. As shown in Table 2, by the final stage of the program, most teachers were at the acceptable level of formation (professional and personal component; 73%). The methodological conditions that were created were useful in the formation of teachers' assessment activities. The end-of-year teacher ratings indicated that the teachers' optimal level of formation had increased: the cognitive components increased by 40%; the activity component decreased by 40%; and the professional and personal components increased by 50%. Thus, the percentage of teachers at the critical level decreased significantly, with most moving to an acceptable level, and a small percentage moving to the optimal level.

Table 2

Levels of proficiency in assessment activities.

Level	Component		
	Cognitive component	Activity component	The professional and personal component

Optimal level (conscious competence)	20% of teachers	40% of teachers	10% of teachers
Acceptable level (conscious incompetence)	70% of teachers	51% of teachers	73% of teachers
The critical level (unconscious incompetence) that requires the teacher's further training	10% of teachers	9% of teachers	17% of teachers

4. DISCUSSION

This study contributes to the literature about the assessment activities framework. Previous studies examining assessment formation have examined teacher competence (Taubaeva, 2000), inter-disciplinary teaching methods (Almuhambetov, 2002; Ibragimkyzy et al., 2016; Lunina, 2016), methods of teacher development (Ospanbekova et al., 2016; Shalashova et al., 2018), and student cognitions (Buzaubakova et al., 2021; Sartayeva et al., 2018). The study findings revealed that teacher competence and student participation are critical for the formation of assessment activities. These findings are based on the initial and final level of formative assessment activities among teachers in Kazakhstan. Teacher competence improved significantly after the intervention (Shalashova et al., 2018). By carrying out the study in three stages, the literature, material, and strategies were thoroughly analyzed before they were implemented. These were based on the recommendations of Randel (2016) and Furtak et al., (2016) in relation to developing training programs that critically analyze courses, consider the competence of the students, and are long-term in nature.

The study also contributes to criteria-based model literature. In 2016, a renewed curriculum was adopted in all Kazakhstani mainstream schools (OECD, 2015). The study findings revealed that all teachers were at an acceptable level of formation after the program. With training and support, the teachers developed awareness of assessment activities and involved their students in the process. These findings are aligned with those of previous researchers who have revealed that assessment activities are only practical when teachers receive adequate training (Kanatovna & Jumakhmetovna 2020) and engage students in the learning process (Orekhova et al., 2019), and when the program is optimally implemented (Shinkai et al., 2018). This training program could be used to monitor teachers and students about criteria-based assessment.

5. CONCLUSIONS

Modern trends have influenced educational principles and practices. These practices require integrating students' learning needs and their ability to integrate with the dynamic environment. Recent reforms in Kazakhstan have created a need to examine the formation of teachers' assessment activities. The introduction of criteria-based assessment provides an appropriate framework for this study.

In these conditions, the formation of teachers' assessment activity should be based on the criteria-based model. The education system of Kazakhstan has been updated to match European educational standards. The current study examines the formation of teachers' assessment activities based on the theoretical (epistemological) application of new scientific discoveries in academia, the practical and effective design of such activities, and the new system. This study has comprehensively examined the professional competence of teachers based on their level of assessment formation.

Conflict of Interest: The authors declare no conflict of interest.

Ethical Approval: The study adheres to the ethical guidelines for conducting research.

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