Enhancing Teacher Performance through Professional Development: Evidence from Primary Education in Kosovo

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A R T I C L E   I N F O

A B S T R A C T

Purpose. This study aims to examine the impact of professional development training on improving teachers' instructional practices and students' learning experiences in primary education in the Republic of Kosovo. **Methodology** Adopting a mixed-methods approach, the research combines theoretical and empirical analyses with the participation of 225 individuals (teachers, students, and school leaders) from three primary schools, using Likert-scale questionnaires and structured interviews. Data were analyzed through descriptive statistics, independent-samples t-tests, and Pearson correlation analysis. **Results.** The findings reveal a high level of teacher engagement in applying modern methods, integrating technology, and adopting inclusive approaches, supported by strong institutional backing from school leaders and the inspectorate. At the same time, students report positive perceptions of teachers' commitment and support, while highlighting a lack of methodological diversity and limited collaborative learning practices in classrooms. The t-test showed no statistically significant differences between teachers' and school leaders' perceptions, whereas teaching experience did not emerge as a determining factor for the use of innovative practices. **Implications for research and practice.** The results underscore the importance of institutional support, the sharing of best practices, and the cultivation of a reflective and collaborative school culture. In conclusion, the study recommends the development of personalized professional development plans and the establishment of mechanisms to evaluate the impact of training on classroom practice.

Introduction

Teachers' professional development represents one of the key pillars for ensuring quality in the education system, particularly in primary education, where the foundations

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of long-term learning are established (Postholm, 2012). At this level, the role of teachers goes beyond the transmission of knowledge: they directly influence the shaping of students' attitudes, values, and motivation to learn. In the face of rapid technological, social, and economic transformations, teachers are confronted with new challenges that require continuous support through effective professional development programs (Hennessy et al., 2022; Sims et al., 2025). In Kosovo, many teachers demonstrate readiness to adopt modern methods, integrate technology into the teaching process, and implement inclusive approaches that address the diverse needs of students (Qorraj & Kaçaniku, 2023; Saliu & Bicaj, 2022). However, the success of these efforts often depends on the quality and applicability of the training provided.

Despite the increase in the number of accredited training programs, there is still a lack of empirical evaluations measuring their actual impact on teaching practices and students' school experiences. Studies suggest that effective training is characterized by the active involvement of teachers, a direct connection to daily practice, professional collaboration, and continuous reflection (Kusmawan et al., 2025; Meyer et al., 2023; Ramos et al., 2022). In the Kosovar context, however, empirical evidence remains limited, and in many cases there is a lack of in-depth analysis regarding how such training translates into concrete improvements in teaching quality and students' classroom experiences (Kurteshi et al., 2025). This situation represents a significant gap, particularly given the structural challenges of the education system, such as limited resources, ongoing reforms, and the pressure to improve quality

This study aims to contribute to filling this gap by analyzing the impact of professional development training on teachers' performance and students' learning experiences in primary education in Kosovo. In particular, the research examines the perceptions of teachers, school principals, and students regarding the effectiveness of training programs, as well as the relationship between teachers' professional experience and the extent of their engagement in contemporary pedagogical practices. This contribution is unique as it provides empirical evidence from an under-researched context in the international literature and has significant implications both for the design of education policies and for everyday teaching practice.

With this premise the study identified a few research objectives: (1) To evaluate the impact of training programs on teachers' professional development; (2) To analyze the effects of training on teaching quality and the use of innovative methods; (3) To examine the perceptions of teachers, principals, and students regarding the effectiveness of training programs; and (4) To identify challenges and opportunities for improving the training system in primary education. To achieve these objectives, and building on the theoretical and empirical review, this study is guided by the following research questions: (1) To what extent do professional training programs influence the improvement of teachers' performance in primary education? (2) How does participation in training affect the use of modern teaching methods and the creation of an inclusive learning environment? (3) What are the perceptions of teachers, students, and school leaders regarding the effectiveness of professional training? (4) Is there a relationship between teachers' participation in professional development programs and students' academic outcomes? (5) What are the main challenges and opportunities for improving the system of professional training in primary education?

Literature Review

Theoretical Review

Teachers' professional development is considered a fundamental element in ensuring quality in education, especially in primary education, where the foundations of long-term knowledge, skills, and attitudes are established. In a global context marked by rapid technological and social changes, teachers need to be equipped with updated competencies that enable them to respond effectively to new challenges. Theoretical research emphasizes that the most effective professional development is that which is closely connected to subject content and the concrete classroom practice. Darling-Hammond et al. (2017) highlight that trainings directly related to the realities of teaching are significantly more successful than general programs. Similarly, Desimone et al. (2025) identify four key dimensions: active engagement, sufficient duration, collegial collaboration, and integration into daily teaching practice.

Contemporary models, such as Professional Learning Communities (PLCs), have been identified as effective approaches for building a collaborative and reflective school culture. Moreover, education systems which have established sustainable PLCs have demonstrated significant improvements both in teacher performance and in student outcomes. In addition, the use of technology is increasingly seen as a catalyst for enhancing access to professional development. Digital platforms and blended learning have been shown to increase flexibility, inclusiveness, and teachers' professional autonomy (UNESCO, 2023). According to Fullan (2020), professional development should not be reduced to technical training alone, but should be considered a long-term process that fosters a culture of innovation, reflection, and organizational learning.

Empirical Review

Empirical studies have highlighted that the impact of training depends not only on its content, but also on institutional and personal factors. Effective leadership, teacher motivation, and opportunities to apply newly acquired practices are determining elements for the success of professional development. Furthermore, Robinson et al. (2007) argue that the evaluation of training programs should be conducted systematically at both school and national levels to ensure sustainable improvement. Along the same lines, Skaalvik and Skaalvik (2023) emphasize that intrinsic motivation and self-efficacy are significant predictors of teaching quality and the overall school climate.

In Kosovo, professional development has been institutionalized through MEST policies and projects supported by international partners. The MEST report (2024) highlights that over 7,500 teachers participated in training programs within a single year, covering areas such as technology integration, inclusion, and classroom management. However, empirical evidence on the concrete effects of these trainings on teacher performance and student outcomes remains limited, creating a clear need for further research in this field.

Research Hypotheses

H1: *Professional development training has a positive impact on improving teachers' performance, including the use of innovative methods, technology, and inclusive approaches.*

H2: *There is a statistically significant relationship between participation in professional training and the improvement of students' outcomes in primary education.*

Methodology

Research Design

This study was conducted using a quantitative approach with a descriptive and comparative design, which provides an opportunity to measure and analyze the perceptions of key actors in the educational process. Such an approach was considered appropriate, as it allows for comparisons between different groups (teachers, students, and school principals) and ensures reliable data to assess the impact of professional training on the quality of teaching and students' learning experiences.

Sampling

The target population included teachers and students from public primary schools in Kosovo. The sample was selected through purposive sampling technique, ensuring representation from different geographical regions of the country. The study involved three schools: *"Selami Hallaçi" (Gjilan), "Faik Konica" (Prishtina), and "Emin Duraku" (Prizren).* In total, the sample consisted of 180 students, 45 teachers, and 3 school principals. Out of 250 distributed questionnaires, 225 were returned, reflecting a response rate of 90%, which is considered highly satisfactory for studies of this type.

Instruments and data collection procedures

Data were collected through a combination of questionnaires and structured interviews. The teachers' questionnaire contained 9 statements built on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree), divided into areas such as: teaching methodology, technology integration, inclusive approaches, and collaboration with the community. Additional questions addressed professional self-assessment and institutional support for professional development. The students' questionnaire included 9 statements adapted to their level of comprehension, which measured learning motivation, perceptions of teachers' pedagogical approaches, and participation in interactive activities.

Structured interviews with school principals were conducted using a protocol with open-ended questions focused on monitoring the quality of teaching, supporting teachers, and their perceptions of the impact of professional training at the institutional level. Data collection took place over a two-week period in the spring of 2024, adhering strictly to ethical research principles, including prior informed consent from participants and the protection of data confidentiality

Data Analysis

The collected data were analyzed using the SPSS software, applying a combination of statistical techniques tailored to the nature of the research questions. Initially, descriptive statistics (mean and standard deviation) were employed to provide an overall overview of

respondents' perceptions. Subsequently, an independent samples t-test was applied to compare the perceptions of teachers and school principals. To examine the relationship between teachers' experience and their engagement in developmental practices, Pearson's correlation analysis (r) was conducted. In addition, a comparative analysis was performed across respondent groups (teachers versus students), aiming to assess the degree of alignment or divergence in their perceptions regarding the effects of training. All analyses were conducted in accordance with the standard principles of scientific research, ensuring reliability, validity, and accurate interpretation of the results. This process aimed to provide well-grounded and consistent answers to the research questions and hypotheses of the study.

Results

The data presented in Table 1 illustrate teachers' perceptions regarding the impact of professional training on their teaching practices. This summarizes self-reported assessment by teachers on the application of innovative methods, technology, and modern pedagogical practices. The summarized results are as follows: the statements "I apply innovative methods and techniques in teaching" and "I participate in pedagogical research projects" received the highest ratings (M = 4.5; SD = 0.78). For the use of technology in teaching, the mean scores were M = 4.22 for "I apply ICT and multimedia in teaching" and M = 4.16 for "I implement teaching with modern technology." With regard to inclusive approaches and community collaboration, the average values were 4.36 and 4.33, respectively. The implementation of project-based teaching was rated comparatively lower (M = 4.08), compared to other interactive methods such as debates, quizzes, and outdoor lessons, which were rated above 4.2. The lowest score in this table was recorded for the statement "I have a personal plan for professional development" (M = 3.89; SD = 1.3). Teachers' self-assessment of their professional competencies was reported as high (M = 4.33).

Table 1

Teacher Engagement in Professional Development Practices

Statement	Mean (M)	Standard Deviation (SD)
I apply innovative methods and techniques in teaching	4.5	0.78
I use ICT and multimedia in teaching	4.22	0.85
I use an inclusive approach in teaching	4.36	0.78
I strengthen cooperation with parents and the local community	4.33	0.71
I have a personal plan for professional development	3.89	1.3
I participate in pedagogical research projects	4.5	0.78
I apply teaching with modern technology	4.16	0.74
I apply project-based teaching	4.08	0.78
I use debates and quizzes in teaching	4.27	0.71
I conduct lessons outside the classroom for new content	4.28	0.82
I self-assess my professional competencies	4.33	0.77

The data in Table 2 show teachers' perceptions regarding the role of school leaders and institutions in supporting professional development. This is evident of teachers' perceptions of supervision, evaluation, and institutional support. All indicators report very

high mean values (M > 4.3), which indicates that institutional support is perceived as functional and effective. The statement "The principal monitors teaching plans" received the highest rating (M = 4.52; SD = 0.68). "The principal monitors the quality of teaching" (M = 4.36; SD = 0.77) and "The principal monitors extracurricular activities" (M = 4.42; SD = 0.76) reflect the involvement of school leaders in different aspects of the educational process. The statement "The Inspectorate evaluates the quality of teaching" received a mean value of M = 4.42 (SD = 0.77). Meanwhile, "The school cares for professional development" was rated M = 4.39 (SD = 0.74), reflecting that support for professional development is present at the institutional level.

Table 2

Role of School Leaders and Institutions in Supporting Professional Development

Statement	Mean (M)	Standard Deviation (SD)
The principal monitors teaching plans	4.52	0.68
The principal monitors teaching quality	4.36	0.77
The principal monitors extracurricular activities	4.42	0.76
The inspectorate evaluates teaching quality	4.42	0.77
The school supports professional development	4.39	0.74

The data in Table 3 is the result of the independent samples t-test on the evaluation of training impact. It shows that the mean of school leaders' perceptions of professional development is slightly higher (M = 4.42; SD = 0.74) compared to that of teachers (M = 4.27; SD = 0.82). However, this difference is not statistically significant, as the values of t (-0.68) and p (0.501) are above the significance threshold (p > 0.05). This implies that both groups share similar perceptions regarding the importance and effectiveness of professional training.

Table 3

Comparison of Perceptions between Teachers and School Leaders Regarding Professional Development

Statement	Group A (Teachers)	Group B (School Leaders)	t (df ≈ 58)	p-value
Teachers vs. School Leaders (overall summary)	M = 4.27, SD = 0.82	M = 4.42, SD = 0.74	-0.68	0.501

The results in Table 4 indicate that professional experience does not represent a determining factor in the use of innovative or inclusive practices in teaching. This summarizes Pearson correlation coefficients used to analyze the relationship between experience and selected practices. The correlation coefficients are very weak and not statistically significant: the relationship between experience and the use of innovative methods is minimal (r = 0.059; p = 0.48), while for inclusive approaches it is almost nonexistent (r = 0.016; p = 0.851). The closest relationship appears in cooperation with parents and the community (r = 0.159; p = 0.055), which remains close to the threshold of statistical significance, suggesting a slight tendency for more experienced teachers to be more capable in out-of-school interactions.

Table 4

Correlation Between Professional Experience and Professional Development Practices

Statement	Correlation Coefficient (r)	Significance (p)
I apply innovative methods and techniques in teaching	0.059	0.48
I use an inclusive approach in teaching	0.016	0.851
I strengthen cooperation with parents and the local community	0.159	0.055

The data in Table 5 summarizes students' perceptions of the learning experience, teacher support, and classroom methodology. This reflects students' perceptions of their teachers, with an overall average above the 3.5 threshold, indicating a positive learning climate. The highest rating is for the statement *"Teachers accept more than one correct answer"* (M = 4.49), suggesting a flexible classroom atmosphere, although the abnormally high standard deviation (SD = 19.5) points to a possible error in the data. Similarly, statements related to emotional support, such as *"Teachers help us when we face difficulties"* (M = 4.28) and *"Teachers are interested in our opinion"* (M = 4.16), reflect positive and supportive teacher-student relationships. On the other hand, the statement *"At school, we usually learn in the same way"* (M = 3.19; SD = 2.59) indicates a lack of methodological diversity and inconsistencies among students' experiences. Likewise, group work (*"We solve assignments in groups"*) received a lower score (M = 2.89), signaling gaps in fostering collaboration among students.

Table 5

Student Evaluation of Teachers' Practices and School Climate

Statement	Mean (M)	Standard Deviation (SD)
I want to go to school because I feel good there.	3.45	1.37
My main reason for attending school is to get good grades.	3.54	1.83
We usually learn in the same way at school.	3.19	2.59
The tasks we do at school are interesting to me.	3.53	1.25
We solve tasks in groups at school.	2.89	1.25
Teachers accept more than one correct answer.	4.49	19.5
Teachers care about our opinion when we want to say something.	4.16	1.59
Teachers help us when we have difficulty solving tasks.	4.28	1.04
I participate in project-based activities in different subjects.	3.85	1.22
We often laugh and joke at school.	3.95	1.16

Discussion

The study specifically reveals that teachers are engaged in the use of contemporary methods, including innovative techniques and research projects (Table 1), consistent with the literature that emphasizes the importance of practice-oriented professional development (Darling-Hammond et al., 2017; Desimone et al., 2025). The use of technology was rated highly, reflecting global trends towards the digitalization of education. Likewise, the positive assessments of inclusive approaches and collaboration with the community

are in line with educational policies and with Fullan (2020) emphasis on school–community interaction. However, project-based teaching was rated lower, indicating that this method requires further practical support and more structured planning. The findings confirm the positive impact of training on the improvement of teaching practices, while at the same time highlighting gaps in individual planning and in the implementation of complex methods.

The results of Table 2 further show that school leadership and the inspectorate are perceived not only as supervisory bodies but also as supportive actors in the professional development of teachers. This is consistent with the international literature, which emphasizes that strong school leadership is a key factor in improving performance and motivating the teaching staff (Robinson et al., 2007). Furthermore, the findings support the study's objective of evaluating the role of leadership and institutional structures, demonstrating that professional development is not solely the individual responsibility of teachers, but rather part of an integrated system of support. Although school leaders tend to assess the impact of training somewhat more positively, the overall alignment of perceptions between them and teachers is significant, as it indicates the existence of a shared institutional culture. This suggests a collaborative climate, where the managerial and pedagogical structures are not separated, but function as partners in the process of professional development.

These results are in line with models of professional learning communities (Fullan, 2020; Vescio et al., 2022), where it is emphasized that the quality of leadership is not measured solely by vision, but by the ability to build collaborative relationships with the teaching staff. For the present study, this finding carries practical significance, as it shows that the effectiveness of training is supported not only by its content but also by the harmonized institutional climate that creates spaces for collaboration and the sharing of common goals. These results also indicate that contemporary approaches and inclusive pedagogy do not depend on years of service but rather on educational policies and continuous training. Therefore, experience does not automatically guarantee the adoption of innovative practices, reflecting an institutional culture in which pedagogical standards are equally embraced by teachers across all age groups.

The slightly stronger link with parental cooperation suggests that experience primarily assists in building social and professional relationships. These findings are consistent with contemporary literature (Skaalvik & Skaalvik, 2023), which highlights the limited impact of experience on the adoption of new practices without sustainable institutional support. In line with the objectives of this study, emphasis is placed on the need for personalized and continuous training that provides support to teachers regardless of the time spent in the profession.

The findings also suggest that the teacher–student relationship is built on emotional support and pedagogical flexibility, in line with the literature on the role of positive classroom climate and empathy in motivating students (Skaalvik & Skaalvik, 2023). However, methodological challenges, particularly the lack of variety and collaborative work, remain critical points requiring intervention. For the context of Kosovo, these results provide an important insight into the gap between the aims of educational policies and actual classroom practice, highlighting the need for greater methodological diversity and

the implementation of collaborative methods to enhance student interactivity and motivation.

Conclusions and Recommendations

This study examined the impact of professional development training on the teaching practices of primary school teachers in Kosovo, incorporating the perspectives of teachers, school leaders, and students. The findings demonstrate that professional development exerts a clear positive influence on the use of innovative methods, the integration of technology, and the application of inclusive practices. Furthermore, both teachers and school leaders emphasized the importance of institutional support, highlighting that systemic backing is essential for fostering sustainable changes in education.

Nevertheless, several challenges were identified: the absence of individualized professional development plans, limited methodological diversity in classrooms, and insufficient implementation of collaborative learning. Professional experience was not found to have a significant impact on the adoption of contemporary practices, suggesting that institutional factors and individual motivation outweigh seniority. From the students' perspective, although the learning climate was perceived positively, a notable gap emerged between teachers' stated objectives and students' actual experiences. Overall, these findings underscore the necessity of a more systematic, personalized, and closely monitored approach to professional development for teachers in primary education.

Based on the research findings, several recommendations are proposed:

1. **Personalization of training**, shifting from a one-size-fits-all model toward differentiated approaches that account for teachers' experience, needs, and learning styles.
2. **Development of individualized professional development plans**, supported by mentoring, critical reflection, and institutional supervision.
3. **Strengthening interactive methodological competencies**, through training that emphasizes group work, interdisciplinary projects, and activity-based learning.
4. **Establishing mechanisms for impact measurement,** creating clear systems to assess the effectiveness of training on teaching quality and student outcomes.
5. **Systematic use of student feedback**, recognizing student perceptions as valuable indicators of the quality and effectiveness of new methods.
6. **Empowering school leaders**, preparing them to act not only as managers but also as pedagogical leaders and mentors for their staff.

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