Research of Professional Preferences of Teachers in Kazakhstan: Analysis of Teaching Methods and Training Courses

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Abstract. The study aims to identify the professional preferences and needs of teachers in Kazakhstan in the areas of teaching methods and training courses. The survey involved 41,231 teachers from various regions of the country, providing representative data. The main objective of the research was to determine which professional development directions are most in demand among teachers and how these preferences vary by region, years of experience, and subjects taught. The research methods included quantitative analysis conducted through questionnaires. The analysis revealed that most teachers show interest in courses on teaching methodology for their specific subjects, as well as courses related to the use of interactive and innovative teaching methods, the integration of digital technologies, and the preparation of students for competitions. It was found that teachers’ preferences vary depending on their experience: novice teachers are more interested in general professional development courses, whereas experienced teachers prefer specialized courses that enhance their professional skills. Based on the collected data, recommendations were formulated for the development of educational programs for teachers’ professional development, emphasizing methodological training, modern educational technologies, and innovative teaching approaches. These findings can contribute to improving the quality of teaching and the overall effectiveness of the educational process in Kazakhstan.

Key words: professional development, teachers, teaching methods, training courses, quantitative analysis, pedagogical practice.

Introduction

Professional development of teachers is a key factor in improving the quality of education. Studying teachers’ professional preferences, as well as their training methods and professional development courses, allows for the creation of more effective professional development programs. This study examines the professional preferences of teachers in Kazakhstan, analyzing their training methods and professional development courses.

One of the key aspects of researching teachers’ professional preferences is analyzing the factors influencing their professional development. In the study by Byman et al. the professional preferences of teacher educators in Finnish pedagogical universities are examined [1]. The main goal of the study was to develop and test the psychometric properties of three scales measuring components of teacher educators’ professional development: developmental needs, preferred ways of meeting those needs, and hindrances to meeting those needs. The study revealed that teacher educators are not a homogeneous group, and different occupational groups have different interests in professional development. Ansyari et al. analyzed the preferences of Indonesian teachers regarding online professional development programs. Based on data from English teachers, the study found significant positive preferences for synchronous interaction and negative preferences for costly programs, programs without participation or completion certificates, programs conducted over a long period, and those using digital reading materials [2]. It was also found that age, gender, and experience with online programs influence teachers’ preferences. The study by Uslu and Özgün focuses on the perceptions of professional preferences and teaching status among future preschool teachers studying in various faculties [3]. The analysis showed a high degree of correlation between the reasons for choosing the teaching profession and perceptions of professional status. The results also indicated a significant influence of gender, faculty, and place of residence on professional preferences and perceptions of teaching status. The study by Bautista, Toh, and Wong (2018) examines the motivations, needs, and preferences for professional development among primary school music teachers in Singapore, depending on their level of specialization in music education [4]. The study revealed that the level of specialization plays a crucial role in determining teachers’ motivations, needs, and preferences. For example, teachers with a major specialization in music education showed the greatest interest in improving their music content knowledge, while generalists preferred learning in informal settings with colleagues.

Against the backdrop of international research, the study of professional preferences of teachers in Kazakhstan acquires particular significance [5, 6]. The research on the professional needs of Kazakhstani teachers was conducted using qualitative and quantitative methods. Qualitative data were collected through the study of current educational practices, skills, and beliefs of teachers in Kazakhstan. Quantitative data were obtained through a survey in which 41,231 teachers participated. The study aimed to identify teachers’ preferences across the country regarding teaching methods and professional development courses, as well as to gain a general understanding of their professional development. Analyzing these factors will allow for the development of more effective professional development programs, contributing to the improvement of education quality in Kazakhstan.

Materials and Methods

The study included the collection and analysis of data from 41,231 teachers from various regions of Kazakhstan. The survey was conducted using an online platform, which allowed for a broad reach of respondents. The survey questions focused on the selection of professional development directions, preferred professional development courses, years of experience, subjects taught, and languages of instruction. Here are the main approaches used in the analysis of teachers’ responses.

The cluster analysis method, particularly
the k-means method, was used to segment teachers into groups based on similarities in their professional development choices. This helped identify clusters of teachers with similar preferences. This analysis also helped identify a group of teachers preparing for the upcoming teacher certification in the 2023-2024 academic year. Thematic analysis was used to analyze teachers’ textual comments. This helped identify the main themes and issues mentioned by teachers in their responses. Sentiment analysis was conducted to determine the “voice of teachers” regarding the proposed directions and professional development courses. This allowed us to understand the overall attitude of teachers towards various courses, their professional development, and identify areas requiring improvement.

**Results**

**Geographic Distribution**

A total of 41,231 teachers from various regions of the country participated in the survey, with particularly active participation from representatives of major cities and regional centers. This diversity allows for consideration of the opinions of teachers from different parts of Kazakhstan and enables a comparative analysis of results between regions.

**Teacher Profile**

Subjects Taught: The most common subjects are primary education (more than 20,000 teachers), Kazakh, Russian, and English languages, mathematics, Russian language and literature, and physical education. Teachers from various regions of the country participated in the survey, with particularly active participation from representatives of major cities and regional centers. This diversity allowed for the consideration of teachers’ opinions from different parts of Kazakhstan. A comparative analysis of results with other cities was conducted to identify similarities and differences in responses. We will examine the subjects taught by respondents and the distribution by language of instruction. This will provide an understanding of the professional profile of teachers.

![Figure 1 – Distribution of respondents by subjects taught.](image-url)
According to the survey, one of the important questions was the choice of language in which respondents could receive training. The results were as follows: 52.4% of teachers can only be trained in Kazakh, which accounts for more than 20,000 teachers; 9.8% only in Russian; and 37.8% in both Kazakh and Russian.

*Figure 2 – Distribution of respondents by teaching language.*

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*Figure 3 – Distribution of respondents by language of instruction.*
Type of educational institution: The majority of respondents work in state educational institutions (97%). This highlights significant potential for offering educational courses in the public sector, where teachers may seek opportunities for professional development.

![Figure 4 – Distribution of respondents by type of educational institutions.](image)

Professional development programs achieve the highest level of effectiveness when they meet the needs of educators. The content of these programs should be linked to the school curriculum, take into account the experience of teachers, and address their needs.

**Work Experience**

Teachers have varying levels of work experience, ranging from young professionals (0-3 years) to experienced teachers (14 years and more):

- **14 years and more:** around 25,000 teachers.
- **8-13 years:** more than 7,000 teachers.
- **0-3 years and 4-7 years:** around 8,000 teachers in each category.

**Preferences in Training Courses**

Now that we have information on teachers’ work experience, we can analyze their preferences for training courses, taking into account their work experience. This will allow us to see how interests in training vary depending on teachers’ experience across different regions.

According to TALIS 2018 data [6, 7], Kazakhstani teachers primarily need to study updated curricula and textbooks (36.6%) and principles of criteria-based assessment (30.5%).

In order to explore their interests in teacher training courses, respondents were asked about their interest in studying the following topics: updated curricula, principles of criteria-based assessment, teaching methods, and interactive teaching methods:

An analysis of respondents’ interests in various professional development courses based on frequency of selection revealed several key areas:

- Teaching methodology of their subject: 24,233 mentions.
- Use of interactive teaching methods: 13,186 mentions.
- Preparation of students for competitions: 8,928 mentions.
- Integration of digital technologies into the educational process: 6,625 mentions.
- Enhancement of subject knowledge: 16,606 mentions.
- Innovative teaching methods (PBL, Flipped classroom, gamification): 8,055 mentions.

Courses related to teaching methodology of specific subjects are of the highest interest, followed by courses aimed at enhancing subject knowledge and those focusing on preparing students for competitions.

Figure 5 depicts the most popular courses selected by teachers. It is evident that courses related to teaching methodology of specific subjects, use of interactive and innovative teaching methods, and integration of digital technologies into the educational process are highly sought after. This graph visually illustrates the areas where teachers show the greatest interest in professional development.

**Regional Preferences**

Courses on teaching methodologies, subject knowledge enhancement, and preparation for competitions are particularly popular in the cities of Astana, Almaty, and Shymkent. Each region exhibits its unique preferences, but common trends also prevail, such as interest in innovative teaching methods and the integration of digital technologies into the educational process.
Discussion

The conducted research revealed that teachers in Kazakhstan are primarily interested in enhancing their subject knowledge and developing their professional skills, particularly in teaching methodologies and integrating modern technologies into the educational process [8]. There is a need to create mechanisms to ensure that professional development programs meet the needs of each teacher. Expanding the choice of training courses can be achieved by providing teachers with vouchers for additional professional training, allowing them to choose the programs that best suit their needs. In Kazakhstan, according to the State Program for the Development of Education and Science for 2020-2025, it is planned to test a voucher system for advanced training. In order to eliminate barriers to teacher development, their professional growth should become a key priority at all levels. This requires allocating resources, including paid time for additional education and financial incentives to improve professionalism. Efforts to create effective professional development programs for teachers may be in vain if teachers do not have the opportunity to participate in them and apply their acquired skills in their professional activities. It was revealed that one of the main obstacles to the professional development of teachers (35.5%) is a lack of time. Additionally, 35% of Kazakhstani teachers note that their work schedule does not allow them to engage in professional development. According to the results of TALIS 2018, teachers work an average of 49 hours per week, which is significantly higher than the OECD average of 39 hours per week. Meanwhile, teachers devote only about 15 hours per week to teaching, spending an average of 34 hours on activities outside of lessons. The increase in teachers’ workload may be due to the need to master and teach updated educational content, as well as criteria-based assessment. Mastering new programs, teaching methods, and assessments requires additional time and effort [9].

Research indicates that teachers are particularly eager to enhance their subject-specific knowledge and seek continuous professional development. Studies have shown that effective professional development focuses on deepening teachers’ understanding of the subjects they teach and improving their instructional practices [10]. Teachers view professional development opportunities as vital for staying current with educational trends and integrating innovative teaching strategies, which are essential for their professional growth [11, 12].

In Kazakhstan, a significant number of teachers have expressed a desire to improve their subject knowledge and pedagogical skills. For instance, the focus on enhancing subject knowledge and teaching methodology has been identified as a priority for professional development programs. Additionally, the integration of digital technologies and innovative teaching methods such as gamification and project-based learning are areas of interest among teachers, indicating a commitment to evolving their instructional practices to better engage students [13, 14].

The largest group of respondents included teachers of primary grades, Kazakh, Russian, and English languages, and mathematics, indicating the need to focus on these subjects when planning professional development courses and instructional materials for teachers in Kazakhstan. It was found that the majority of teachers prefer training in Kazakh language, emphasizing the importance of developing and offering educational resources and courses in the state language.

Teachers with different levels of experience show interest in various courses, highlighting the necessity to develop educational programs that cater to different stages of teachers’ professional development. Experienced teachers may require specialized courses, whereas novice teachers may benefit from general professional development courses aimed at developing foundational skills.

Conclusions

Based on the analysis of the data, the following conclusions and recommendations can be drawn:
Focus on Methodological Training for Teachers: Development and offering of professional development courses focusing on teaching methodologies for specific subjects.

Language Adaptation of Courses: Provision of educational resources and courses primarily in the Kazakh language to cater to the language preferences of teachers.

Integration of Digital Technologies: Development of courses aimed at integrating digital tools into the educational process to enhance digital literacy among teachers and students.

Support for Innovative Teaching Methods: Offering courses on gamification, project-based learning, and flipped classroom to promote innovative teaching methods.

Consideration of Work Experience: Development of professional development courses tailored to the needs of teachers at different stages of their careers.

As digital literacy and technology integration become increasingly crucial, schools and teachers should actively incorporate digital tools and resources into the learning process. Implementing innovative methods such as gamification, project-based learning, and flipped classrooms can make learning more interactive and engaging for students, thereby enhancing the quality of education. The significant number of responses, particularly around 2000 respondents in the “other” category, underscores the diverse interests and needs of teachers that may extend beyond standard professional development programs. Visual representations, such as charts, help illustrate which courses are most in demand among teachers and identify both common and unique trends in their professional interests.

These measures will contribute to improving the quality of education and professional development for teachers in Kazakhstan, addressing their current needs and preferences effectively.

Bibliography


References


Исследование профессиональных предпочтений учителей Казахстана: анализ методик преподавания и обучающих курсов

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Аннотация. Исследование направлено на выявление профессиональных предпочтений и потребностей учителей Казахстана в области методик преподавания и обучающих курсов. В исследовании приняли участие 41 231 учителя из различных регионов страны, что позволило получить репрезентативные данные. Основной целью исследования было определить, какие направления профессионального развития являются наиболее востребованными среди учителей и как эти предпочтения распределяются в зависимости от региона, стажа работы и преподаваемых предметов. Методы исследования включали количественный анализ, проведенный посредством анкетирования. Анализ показал, что большинство учителей проявляют интерес к курсам по методике преподавания своего предмета, а также к курсам, связанным с использованием интерактивных и инновационных методов обучения, интеграцией цифровых технологий и подготовкой учащихся к олимпийским играм. Было выявлено, что предпочтения учителей варьируются в зависимости от их опыта: начинающие педагоги более заинтересованы в общих курсах повышения квалификации, тогда как опытные учителя предпочитают специфичные курсы по повышению уровня своего профессионального развития. Основываясь на полученных данных, были сформулированы рекомендации по разработке образовательных программ профессионального развития учителей, которые включают акцент на методической подготовке, современных образовательных технологиях и инновационных подходах в обучении. Эти результаты могут способствовать улучшению качества преподавания и общей эффективности образовательного процесса в Казахстане.

Ключевые слова: повышение квалификации, преподаватели, методы обучения, учебные курсы, количественный анализ, педагогическая практика.
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