Teachers' Motivation for Professional Development as a Means of Increasing Preschool Education Quality

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Abstract: The purpose of this research was to determine teachers' professional development motivation as a way to improve the quality of preschool education. In the study, the descriptive survey model was used in quantitative research models. The study group of the research consisted of 307 preschool teachers working in various preschool education institutions in Almaty, Kazakhstan. The professional development motivation scale of preschool teachers was created by this study's researchers. A quantitative analysis program was used to analyze the data. Since the Kolmogorov - Smirnov value indicated normal distribution, parametric tests were applied to the data set. Weighted mean, standard deviation, independent groups T-test, and one-way analysis of variance (ANOVA) were applied to analyze the data. As a result of the research, preschool teachers' attitudes towards professional development motivation as a way to improve the quality of education were found to be high. It was determined that there was a significant difference in the attitudes of the preschool teachers participating in the research regarding their professional development motivation as a way to improve the quality of education, in favor of female preschool teachers, according to the gender variable. It has been determined that there is a significant difference in the attitudes of preschool teachers regarding their professional development motivation as a way to improve the quality of education, in favor of preschool teachers with 1-5 years and 6-10 years of professional seniority, according to the professional seniority variable.

Keywords: Preschool education; preschool teachers; professional development; professional motivation.

1 Introduction

Today, the main purpose of education is to qualify human resources. For this reason, developed and developing countries are constantly making reforms to improve their education systems. One of the most important indicators of the quality of education is student success [1]. Many factors affect student success [2]. However, teacher quality is one of the factors affecting student success [3]. Many factors are indicators of teacher quality, such as the quality of pre-service education, technological pedagogical field knowledge, professional development, professional experience, and the personal characteristics of the teacher [4]. However, among these factors, professional development is the most important variable that determines teacher quality [5,6].

1.1 Theoretical and conceptual framework

Professional development is seen as a fundamental mechanism that provides depth to teachers' content knowledge and teaching practices [7,8]. Professional development enables professionals to improve themselves in their profession; It is necessary to keep them up to date on technical, legal, conceptual, and social change issues [9-11]. Professional development is considered a part of the career process of teachers who complete their undergraduate education and is addressed with the term continuous professional development; in some cases, it may refer to an update in the use of technology or evaluating intelligence and talents in students [12-16]. Continuing professional development is defined as the continuation of teachers' professional development, education, and qualifications when they start the profession, and includes the education, training, and work-embedded support activities that teachers participate in during their senior teaching careers after graduation [17,18]. Continuous professional development activities aim to provide more effective education; it aims to increase professional knowledge, develop professional skills, and determine professional values [19,20]. Teacher professional development emerges as a fundamental element in meeting expectations regarding the quality of education [21,22].

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Professional development activities affect student success in three steps. First of all, the professional development process improves the teacher's knowledge and skills. Secondly, as the teacher's knowledge and skills become more qualified, it increases the quality of the education and training applied in the classroom. Finally, the teacher's application of effective teaching strategies and increasing the quality of education is directly reflected in student success [23].

The attitudes and behaviors that preschool teachers show to children are of great importance in terms of the qualified progress of the institution and the achievement of the goals of the preschool education program [24]. The teacher is an important guide for the development of the child and the family [25,26]. Teachers, especially those working in vital preschool education, play an important role in helping children gain knowledge and skills [27]. In addition to contributing to the development of the child, the teacher enables them to acquire skills by providing environments that facilitate learning [28].

Since children seek the warmth of their parents in the school environment, the preschool teacher must give the warmth of family and home to children at school [29]. Teachers play an important role in meeting these basic needs that are expected to be met by preschool education institutions [30]. In this process, it is seen that teachers' job satisfaction levels are effective in meeting the needs of children [31]. Therefore, in this study, it was found important to evaluate teachers' professional development motivations as a way to improve the quality of preschool education.

1.2 Related research

It is seen that there are studies on training, coaching, consultancy, mentoring, technical assistance, and professional development models used in early childhood programs [32-34]. In some studies, conducted in the field, applications for creating or improving the professional development of teachers using online methods have been mentioned [35-41].

In his research, which aimed to examine preschool teachers' self-learning processes within a professional learning community, James [42] used an action research methodology to understand how preschool teachers plan, implement, and evaluate their professional development in the context of a professional learning community. Research findings have shown that preschool teachers engage in self-directed learning through interactive processes and perceive that learning is internally directed and externally influenced [43]. Strahan [44] evaluated the process of teachers designing their professional development. Study results showed that participants in the peer group responded to the opportunity to design their professional development by planning and making meaningful changes in their teaching practices.

Fischbaugh [45] investigated the relationship of teacher-led professional development with school climate, teacher commitment, and instructional planning. Thirty-two (32) teachers from different fields participated in the research. Survey and interview results showed that teacher-led professional development is meaningful and valued by teachers. Howard [46] tried to reveal the positive and negative aspects of online micro-courses on professional development. It has been determined that online micro-courses have positive aspects such as accessibility, flexibility, and opportunities to participate in successful application activities. Limited peer collaboration, the existence of different organizational interests, and forced adaptation to conditions that restrict individuality and marginalize teacher identities have been identified as negative aspects.

1.3 Purpose of the research

This research aimed to determine teachers' professional development motivation as a way to improve the quality of preschool education. The research attempted to find answers to the sub-objectives specified below.

Is the motivation of the preschool teachers participating in the research a way to improve the quality of preschool education?

Do motivations of preschool teachers participating in the research, as a way to improve the quality of preschool education, differ according to gender?

Do motivations of preschool teachers participating in the research, as a way to improve the quality of preschool education, differ according to the professional seniority variable?

Do motivations of preschool teachers participating in the research, as a way to improve the quality of preschool education, differ according to the professional seniority variable?

2   Method

This section of the research contains information about the method. The research method, data collection tools,

development and implementation process, data evaluation, and ethical principles are explained in this section.

2.1 Research method

In the study, the descriptive survey model was used in quantitative research models. In the descriptive scanning model, findings regarding an existing issue, event, or phenomenon are evaluated within the context of their circumstances. The situation, person, or events are described as they are [47]. A descriptive survey model was used to determine the professional development motivations of the preschool teachers participating in the research.

2.2 Participants

The study group of the research consists of 307 preschool teachers working in various preschool education institutions in Almaty, Kazakhstan. The characteristics of the preschool teachers who participated in the research are given in Table 2 in the findings section.

2.3 Data collection tools

The motivation scale of preschool teachers was created by researchers. Certain stages were followed in the development process of the scale. These are 1. Preparation of the pilot scale. 2. Implementation of the pilot scale. 3. Evaluation of the pilot scale.

1. Preparation of the pilot scale: At this stage, the literature was scanned, and 41 items were created to measure the professional development motivation of preschool teachers. The created items were converted into a form and presented to the opinion of 5 experts. Experts evaluated the content validity of the items. 29 items determined by experts were added to the pilot scale. The pilot scale was created as a 5-point Likert type. It was determined as 1-Very low, 2-Low, 3-Medium, 4-High and 5-Very high. Item score ranges of the items in the pilot scale are 1.00-1.80; "Very low", 1.81-2.60; "Low", 2.61-3.40; "Medium", 3.41-4.20; "High" and 4.21-5.00; It reads "too high". The pilot scale is ready for implementation.

2. Application of the pilot scale: A sample group was created for the application of the scale. There are 265 preschool teachers in the sample group. Preschool teachers who participated in the pilot application sample group were not included in the main study group of the research. The pilot scale application was carried out face-to-face in the educational institutions where teachers worked.

Kaiser-Mayer-Olkin (KMO) and Bartlett's Test of Sphericity (BTS) were applied to the data set obtained from the pilot scale. The KMO value was 0.955 and the BTS test was found to be less than 0.05 in terms of significance. The obtained values reveal that factor analysis can be performed on the data. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were performed on the data set. EFA was carried out with the SPSS 25.0 statistical program, and DFA was carried out with the SPSS Amos statistical program. In the EFA stage, 2 factors that were outside the factor structure of the pilot scale consisting of 29 items or that loaded on a different factor were removed from the scale. The remaining 27 items indicate a two-factor structure with eigenvalues greater than 1. The first factor of the scale is called institutional-based development and there are 14 items in this factor. The second factor of the scale is called individual-based development and there are 13 items in this factor. While the first factor explains 48.70% of the attitude variable, the second factor explains 21.42% of the attitude variable. Factor loadings of the items that make up the scale vary between 0.62 and 0.89. The findings reveal that the scale has sufficient construct validity. CFA was performed to demonstrate the accuracy of the resulting structure. The goodness-of-fit indexes of the scale for CFA are given in Table 1.

Table 1: Goodness of fit index

x²/ df	RMSEA	S-RMR	GFI	AGFI	CFI
2.81	0.053	0.09	0.92	0.94	0.93

The Chi-square statistic ($\chi 2/$ df) of the professional development motivation scale of preschool teachers is 2.81. Root means square errors of approximation (RMSEA); 0.053, standardized root means square errors (S-RMR); 0.09, goodness-of-fit index (GFI); 0.92 and Adjusted Goodness of Fit Index (AGFI); 0.94 and Comparative fit index (CFI); 0.93 inventions. These values of the scale show that all fit values indicate a structure that reveals the validity of the scale. After this stage, the reliability of the scale was checked. Preschool Teachers' Professional Development Motivation Scale

Cronbach Alpha internal consistency coefficient was examined to determine its reliability. The internal consistency coefficient for the first factor of the scale was found to be 0.87, for the second factor the internal consistency coefficient was 0.81, and for the overall scale, the Cronbach Alpha internal consistency coefficient was 0.83. These values reveal that the scale has sufficient reliability. The pilot scale form was made ready for application by adding two demographic questions regarding gender and professional seniority information of preschool teachers.

2.4 Data collection process

Research data were collected in the schools where the preschool teachers participating in the research worked. The applications were carried out by teachers evaluating the scale in small groups of 5-10 people. Since there are 27 items in total on the scale, each teacher's evaluation time for the scale was measured as 20-25 minutes. It took approximately 5 weeks to complete the scale applications with all teachers who constituted the sample group of the research.

2.5 Data analysis

SPSS 20.0 quantitative analysis program was used to analyze the data. Since the Kolmogorov - Smirnov value (p>.05) indicates normal distribution tests, parametric tests were applied to the data set. Weighted mean, standard deviation, independent groups T-test, and one-way analysis of variance (ANOVA) were applied to analyze the data.

2.6 Compliance with Ethics

A research information form was created to ensure that preschool teachers who participated in all stages of the research were informed about all stages of the research. This form contains information about the method, purpose of the research, and confidentiality of personal data. A research information form was given to the preschool teachers participating in the research before applying the Professional Development Motivation Scale of Preschool Teachers. Teachers were asked to read the form, declare their voluntary participation in the research in writing under the form, and give the forms back to the researchers. In addition, prior permissions were obtained from the educational institutions where the research was conducted, hours that would not disrupt education were determined and interviews were held with teachers during those periods. In addition, research ethics principles were followed during the writing phase of the research.

3   Result and Discussion

The findings obtained from the professional development motivation scale of preschool teachers, developed by the researchers as the data collection tool of the study, are shared.

Table 2 contains information on the gender and professional seniority demographic characteristics of the preschool teachers participating in the research.

Table 2: Demographic characteristics of preschool teachers

Gender	F	%
Female	166	54.1
male	141	45.9
Total	307	100
Faculty		
1-5 years	82	26.7
6-10 years	79	25.7
11-15 years	85	27.7
16 years and above	61	19.9
Total	307	100

Table 2 shows the demographic distribution of preschool teachers participating in the research according to gender and professional seniority variables. 54.1% of the preschool teachers participating in the research are female and 45.9% are male. 26.7% of preschool teachers have 1-5 years of professional seniority, 25.7% have 6-10 years, 27.7% have 11-15 years and 19.9% have 16 years or more of professional seniority.

Table 3 shows the weighted averages and standard deviations of the professional development motivations of preschool teachers scale and its sub-dimensions.

Table 3: Weighted averages and standard deviations of the professional development motivation scale of preschool teachers

Scale and sub-dimensions	X	SS
Enterprise-based development	2.98	0.641
Individual-based development	4.13	0.877
Preschool Teachers' professional development motivation scale	3.53	0.810

Table 3 shows the weighted averages and standard deviations of the professional development motivation scale of preschool teachers. It was determined that preschool teachers had a moderate attitude in the institutional-based development sub-dimension (X=2.98, SD=0.641), and they were found to have a high degree of attitude in the

individual-based development sub-dimension (X=4.13, SD=0.877). It was revealed that the teachers had a high level of attitude in the overall professional development motivation scale of preschool teachers (X = 3.53, SD = 0.810).

Table 4 shows the T-test results of the independent variables regarding the professional development motivations of the preschool teachers participating in the research according to gender.

Table 4: T-test results of independent variables regarding professional development motivation of preschool teachers according to gender variable

Gender	N	X	SS	F	P.
Female	166	3.79	0.671	14,201	,000
male	141	3.22	0.844		

Table 4 shows the T-test results of the independent variables regarding the professional development motivations of the preschool teachers participating in the research according to gender. As a result of the independent variables T-test, a significant difference was observed in the attitudes of female teachers (X=3.79, P<.0.5) and male teachers (X=3.22, P<.0.5) regarding professional development motivation. It was determined that the significant difference was in favor of female preschool teachers.

Table 5 shows the one-way analysis of variance ANOVA results regarding the professional development motivations of the preschool teachers participating in the research according to the professional seniority variable.

Table 5: One-way analysis of variance ANOVA results regarding the professional development motivations of preschool teachers according to the professional seniority variable

Faculty	N	X	SS	F	P.
1-5 years	82	3.88	0.421	12,588	,000
6-10 years	79	3.80	0.485		
11-15 years	85	3.21	0.689		
16 years and above	61	3.15	0.632		

Table 5 shows the one-way analysis of variance ANOVA results regarding the professional development motivations of preschool teachers according to the professional seniority variable. As a result of one-way analysis of variance ANOVA, it is seen that preschool teachers' attitudes towards professional development motivations differ according to the professional seniority variable (F = 12.588, P < 0.5). It was determined that the significant difference was in favor of preschool teachers with 1-5 years and 6-10 years of professional seniority.

4 Discussion

Of preschool teachers participating in the research regarding professional development, motivation as a way to improve the quality of education was found to be high. It was determined that preschool teachers developed a moderate attitude towards institutional development-based professional development and a high degree of attitude towards individual-based professional development. In their research, Çevik and Köse [48] revealed that teachers' professional motivation is high, similar to the findings of this study.

Of the preschool teachers participating in the research regarding their motivation for professional development as a way of improving the quality of education, according to the gender variable, findings from the research reveal that female preschool teachers' attitudes towards their professional motivation are higher than male preschool teachers. Similar to the findings of this study, Kaya et al. [49] found that the satisfaction level of female teachers in intrinsic motivation factors was higher than the satisfaction level of male teachers.

Regarding preschool teachers' attitudes towards professional development motivation as a way to improve the quality of education according to the professional seniority variable, the findings obtained from the research reveal that the attitudes towards professional motivation of preschool teachers with 1-5 years and 6-10 years of professional seniority are higher than those of preschool teachers with 11 years and more professional seniority. Lam and Yan [50] found in their research that there is an increasing lack of motivation on the part of teachers at almost every level of education and considering the seniority variable. In this regard, there are studies conducted in the field that reveal that the quality of education should be increased by increasing teachers' professional motivation [51-54].

5 Conclusions

The perceptions, attitudes, and behaviors exhibited by teachers, who are among the inputs of the system, have an important place in the healthy and effective functioning of the education system. Especially teachers' motivation regarding their profession has a great impact on the quality of education. Teachers can be happy while working, enjoy

their job, and do it well only with good motivation. Teacher motivation is extremely important both for students' motivation in the classroom and for future educational reforms. Therefore, this research aimed to determine teachers' professional development motivation as a way to improve the quality of preschool education. As a result of the research, preschool teachers' attitudes towards professional development motivation as a way to improve the quality of education were found to be high. It was determined that there was a significant difference in the attitudes of the preschool teachers participating in the research regarding their professional development motivation as a way to improve the quality of education, in favor of female preschool teachers, according to the gender variable. It has been determined that there is a significant difference in the attitudes of preschool teachers regarding their professional development motivation as a way to improve the quality of education, in favor of preschool teachers with 1-5 years and 6-10 years of professional seniority, according to the professional seniority variable.

The results obtained from the research indicate that male preschool teachers and preschool teachers with advanced professional seniority have low attitudes toward their professional motivation. This result necessitated in-service training programs for preschool teachers to improve their professional motivation. Professional motivation should be created with new methods and approaches, especially for male and pre-school teachers with advanced professional seniority. It is thought that repeating this research with different research to investigate the reasons for teachers' low professional motivation will contribute to the field.

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Conflict of interest

The authors declare that there is no conflict regarding the publication of this paper.

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