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Application School Evaluation Scale: Validity and Reliability Study

Abstract

This study highlights the significance of teaching practice and the experiences gained in practice schools for prospective teachers, as they play a crucial role in professional development and educational processes. The aim of the research was to create a valid and reliable scale to assess the perceptions of prospective teachers regarding their experiences in practice schools. The study was conducted in three phases. In the first phase, the construct validity of the scale was assessed using Exploratory Factor Analysis (EFA) with 209 participants. In the second phase, Confirmatory Factor Analysis (CFA) was performed with 149 participants to validate the factor structure. The third phase involved evaluating the scale's reliability through test-retest analysis with 47 prospective teachers. The results demonstrated that the scale comprises three factors: "Administrators," "Practice Teacher," and "Environment," with the proposed structure confirmed by CFA. The overall Cronbach's Alpha reliability coefficient of the scale was found to be .83, further supported by item-total correlations, item-remainder correlations, and test-retest reliability. These findings establish that the scale is a valid and reliable tool for measuring prospective teachers' perceptions, and the scale was named the "Application School Scale2 (ASS)"

Keywords: Practice school, teaching practice, candidate teacher, pedagogical formation.

Uygulama Okulu Değerlendirme Ölçeği: Geçerlik ve Güvenirlik Çalışması

Öz

Öğretmen adayları için öğretmenlik uygulaması ve uygulama okullarında kazanılan deneyimler, mesleki gelişim ve eğitim süreçlerine hazırlık açısından büyük önem taşımaktadır. Bu nedenle araştırma, öğretmen adaylarının uygulama okullarındaki deneyimlerine ilişkin algılarını geçerli ve güvenilir bir şekilde ölçmeye yönelik bir ölçek geliştirmeyi amaçlamaktadır. Araştırma, üç aşamalı bir yöntemle gerçekleştirilmiştir. İlk aşamada, 209 katılımcıyla yapılan Açımlayıcı Faktör Analizi (AFA) aracılığıyla ölçeğin yapı geçerliliği değerlendirilmiştir. İkinci aşamada, 149 katılımcıyla gerçekleştirilen Doğrulayıcı Faktör Analizi (DFA) ile ölçeğin faktör yapısı doğrulanmıştır. Üçüncü aşamada ise 47 aday öğretmen üzerinde test-tekrar test analizi yapılarak ölçeğin güvenirliği incelenmiştir. Analizler, ölçeğin "Yöneticiler," "Uygulama Öğretmeni" ve "Ortam" olarak adlandırılan üç faktörlü bir yapıya sahip olduğunu ve önerilen bu yapının DFA ile desteklendiğini ortaya koymuştur. Ölçeğin genel Cronbach Alpha güvenirlik katsayısı .83 olarak hesaplanmış; ayrıca madde-toplam, madde-kalan korelasyonları ve test-tekrar test analizleriyle güvenirliği pekiştirilmiştir. Elde edilen bulgular, geliştirilen ölçeğin geçerli ve güvenilir bir ölçüm aracı olduğunu göstermekte olup, ölçek "Uygulama Okulu Ölçeği2 (ÇOÖ)" olarak adlandırılmıştır.

Anahtar Kelimeler: Uygulama okulu, öğretmenlik uygulaması, aday öğretmen, pedagojik formasyon.

Introduction

Education is one of the cornerstones of social development and it enables individuals to acquire knowledge, skills and values. In this process, teachers stand out as the most critical actors in the education system; their ability to perform their duties in a qualified and effective manner depends on the quality of the education they receive (Barber and Mourshed, 2007). Increasing the professional competencies of prospective teachers and developing their field skills are among the basic goals of teacher education. In this context, the quality and content of teacher education programs play a decisive role in the professional development of teachers. Quality teacher education is the key to sustainable development at the individual and social levels (Zeichner, 2010). Therefore, continuous investment in teacher education and regular review of these programs are of vital importance.

Formation education is a critical process that enables prospective teachers to acquire professional knowledge and skills. These programs allow candidates to develop their professional competencies by combining their theoretical knowledge with practical applications. Formation education does not only cover teaching methods and techniques; it also includes various topics such as classroom management, student psychology and educational technologies. Therefore, this process directly affects the overall quality of education beyond shaping teachers' professional identities. Effective formation training contributes to both the individual development of teachers and increases the quality of education offered to students (Kraft et al., 2018). However, it is not enough to provide candidate teachers with only theoretical knowledge; they also need to gain qualities such as professional self-confidence, communication skills, and leadership qualities. These skills are developed through practices in schools, so that candidate teachers are prepared both theoretically and practically for various situations they may encounter in the classroom environment.

Teaching practice, which has an important place in the professional development of teacher candidates, is a critical process that allows candidates to combine theory and practice (Zeybek & Karataş, 2022). While theoretical knowledge provides candidates with a basis for understanding the basic principles of educational sciences and teaching methods, the application process provides the opportunity to turn this knowledge into practice in a real classroom environment. This process allows candidates to develop basic teaching skills such as classroom management, student interaction, lesson planning, and evaluation (Tepeli & Caner, 2014). Candidates who experience working with students with different learning styles by teaching in real classroom environments gain the ability to develop individualized teaching strategies (Altan, 2021). In addition, feedback from mentor teachers allows candidates to continuously improve their teaching skills. These experiences support candidates' ability to cope with the challenges they may encounter, while also increasing their professional resilience and adaptability. As a result, teaching practice reinforces candidates' theoretical knowledge and enables them to start the teaching profession more equipped and prepared; thus, it makes significant contributions to the overall quality of education.

Teaching practice is considered one of the cornerstones of teachers' professional development and plays an indispensable role in the development of their professional competencies. This critical process provides pre-service teachers with the opportunity to combine theoretical knowledge with practical application, allowing them to shape their teaching competencies and overall development (Yakar et al., 2021). However, the success of teaching practice largely depends on the quality of education provided in practice schools and the guidance of mentor teachers. While existing studies generally focus on indirect measurement tools such as school climate, environment and culture, they do not give enough space to the direct evaluation of mentor teachers' guidance roles (Çapcıoğlu and Kızılabdullah, 2020; Şahin et al., 2007). Moreover, within the framework of the teaching practice implemented by the Ministry of National Education (MEB), the uod.meb web platform primarily focuses on evaluating students' individual competencies. This evaluation process is based on individual qualifications such as subject knowledge, field expertise, and planning skills, while providing limited consideration to interactive and practical skills within the teaching process. In this context, the need for a measurement tool that objectively evaluates mentor teacher guidance is critical in order to better understand the support and environments needed by pre-service teachers. Such a

tool can contribute significantly to improving the overall quality of teacher education by encouraging stronger collaboration between education faculties and practice schools.

Mentor teachers play a critical role in teacher education and require strong professional competencies and advanced communication skills to provide practical guidance. International literature consistently emphasizes mentor teachers' significant contributions to the professional development of pre-service teachers (Talvitie et al., 2000). However, inadequate understanding or misinterpretation of the roles and responsibilities of mentor teachers stands out as a significant obstacle that can negatively affect the success of pre-service teacher education programs (Uygun et al., 2011; Coulon & Byra, 1997). While mentor teachers are expected to model teaching practices that will serve as examples for pre-service teachers and concretely demonstrate professional competencies, it is observed that many of them have difficulty fulfilling these responsibilities effectively (Güzel et al., 2018; Darling-Hammond et al., 1996; Çetin & Bulut, 2002; Kettle & Sellars, 1996). These difficulties not only limit the contribution of mentor teachers to the education of preservice teachers, but also jeopardize the fundamental goals of preservice programs.

Another important problem in the implementation process arises in the relationship dynamics between mentor and preservice teachers. This dynamic, often described as a "master-apprentice" relationship, is often reduced to mentor teachers imposing specific teaching approaches without sufficiently considering the pedagogical knowledge and skills that preservice teachers have acquired during their academic education (Darling-Hammond & McLaughlin, 1995; Göktaş & Şad, 2014; Kiraz, 2002). In addition, the tendency of some mentor teachers to underestimate or completely ignore the theoretically informed course work of preservice teachers makes the harmony between faculty education and practical application even more challenging (Minaz, 2019). These difficulties make it critical to develop a comprehensive measurement tool to improve the quality of education provided in practice schools and to make the mentor teachers' guidance roles more effective. Such a tool will provide academic insights into the effectiveness of teaching practices and contribute to the strategic management of this process. A well-designed scale to address the gaps noted in the literature will improve both the theoretical and practical dimensions of teacher education and support pre-service programs in achieving targeted outcomes.

Method

In this study, an assessment tool was developed to determine teacher candidates'perceptions regarding the education they received and the school environment in the schools where they did their internship/practice. The screening model was preferred in the study. The screening model is a research method used to understand, define and explain the characteristics of individuals in a particular field and their past or current situations (Büyüköztürk et al., 2012; Karasar, 2014). This method is frequently preferred to describe the current situation and provide a general perspective. Ethics Committee Approval for this study was obtained by the decision of Istanbul Gelisim University Ethics Committee, dated 05.31.2024 and numbered 2024-08.

Work Group

The study sample consists of teacher candidates currently completing their internships in public and private schools under the Ministry of National Education (MEB) in Istanbul. According to the literature, it is suggested that the sample size for Exploratory Factor Analysis (EFA) should be between 5 to 10 times the number of items included in the analysis (Seçer, 2017). Accordingly, 209 participants were used for EFA and 149 for Confirmatory Factor Analysis (CFA). In addition, test-retest application was carried out with 47 participants. The convenience sampling method was used to determine the participants. When the demographic profiles of the participants in the EFA study were examined, 65.9% of the participants (137 people) were female, 1.9% were 20 years old and under, 86.2% were between the ages of 21-25, and 11.9% were 26 years old and over. It was determined that 57.7% of the participants did their internships in public schools. 56.2% of the schools are high school, 24.6% are middle school and 19.2% are primary school. It was determined that the majority of the participants studied in child development (25.4%), physical education (24.7%) and English language

and literature (22.3%) departments. In the CFA study, 63.3% of the participants are female and 84.7% are between the ages of 21-25. In the test-retest application, it was seen that the majority of the participants were again female and between the ages of 21-25.

Scale Development Steps

In this research, a scale was created to evaluate prospective teachers' perceptions of the schools where they conduct their teaching practice. During the initial phase of the study, the focus was on understanding how prospective teachers defined and perceived the practice schools. In order to reveal these perceptions, a literature review was conducted and based on the findings, a focus group study was conducted with five prospective teachers who had a total of 96 hours of teaching practice experience. As a result of this study, an item pool was created. Then, the content and scope of the items in the item pool were evaluated in collaboration with three experts who work with prospective teachers and provide pedagogical formation training and two mentor teachers affiliated with the Ministry of National Education.

In the subsequent phase, statistical methods such as descriptive analysis EFA, correlation analysis between the total scale score and factors, and CFA were applied to analyze the items in the item pool. Based on a comprehensive literature review, a 27-item draft scale was developed. To assess the scale's form, content, clarity, and grammar, feedback from three experts in measurement and evaluation and educational management was solicited. Feedback from three experts in measurement and evaluation and educational management was solicited to assess the scale's form, content, clarity, and grammar. As a result, seven items deemed inappropriate by the experts were removed. All items in the draft scale, which utilized a five-point Likert scale, were positively worded. The final version of the scale comprises 20 items across three sub-dimensions. Participants' scores on the scale range from 20 to 100, with higher scores indicating more favorable perceptions of the teacher candidates toward the practice schools.

Analysis of Data

In order to statistically verify the validity of the scale, both EFA and CFA methods were used. The suitability of EFA was evaluated using Kaiser-Meyer-Olkin (KMO) measurement and Bartlett's Test of Sphericity. Promax oblique rotation was used in the EFA process to determine the construct validity. Promax rotation is a technique used to reveal the factor structure of the data set and to obtain meaningful and interpretable factors (Özdamar, 2003, pp. 246-247). In order to examine the relationship between individual scale items and the general scale score, correlation coefficients between the items and the total factor scores were calculated.

In the CFA phase, the chi-square (χ^2) value and several fit indices were calculated to assess the model's validity. It was established that the fit indices must meet specific acceptable criteria for the model to be deemed valid in CFA. To evaluate the scale's reliability does not appear to be modifying the subject Cronbach's alpha coefficient. The relationship between the scale and individual items was examined using correlation coefficients. Additionally, a dependent sample t-test was performed to identify the distinguishing features of the items. Data analysis was conducted using statistical tools like SPSS and AMOS.

Findings

It is important to note that the conclusions presented in this section are based on the results derived from the validity and reliability analyses conducted on the developed scale.

Findings Regarding Validity Study

In this study, the dimensional structure of the scale was determined using EFA. Before applying EFA, a normality assessment was performed to ensure that the data were suitable for normal distribution. No significant deviation was found as a result of the Kolmogorov-Smirnov test ($p > .05$), which shows that the data were suitable for normal distribution parameters. In addition, the fact that the skewness (-

.641) and kurtosis (.373) values were within the range of ±1.5 supports that the scale scores were suitable for normal distribution (Tabachnick and Fidell, 2007; George and Mallery, 2016).

In line with the study's aims, the Kaiser-Meyer-Olkin (KMO) test and Bartlett's Sphericity Test were applied to evaluate the adequacy of the draft scale data for Exploratory Factor Analysis (EFA). The outcomes showed a KMO value of .923 and Bartlett's Test statistic of 38332.304 ($p<.001$), demonstrating that the data is suitable for factor analysis and conducive to factor differentiation. A principal component analysis was conducted to verify the scale's structural integrity, identifying three factors with eigenvalues exceeding one within the 20-item scale. These factors accounted for 72.501% of the total variance, demonstrating a strong and well-defined factor structure. The factor analysis adhered to the criteria that each item's loading should be .30 or higher, each item should be assigned to a single factor, and there should be at least a .10 difference between the loadings of items that belong to multiple factors (Çokluk et al., 2012; Tavşancıl, 2002). Items with loadings below .30 were excluded, and no items were found to load onto multiple factors with less than a .10 difference between their loadings. The conclusive version of the scale was established in light of these results. The factor loadings and the variance accounted for by the scale are outlined in Table 1.

Table 1

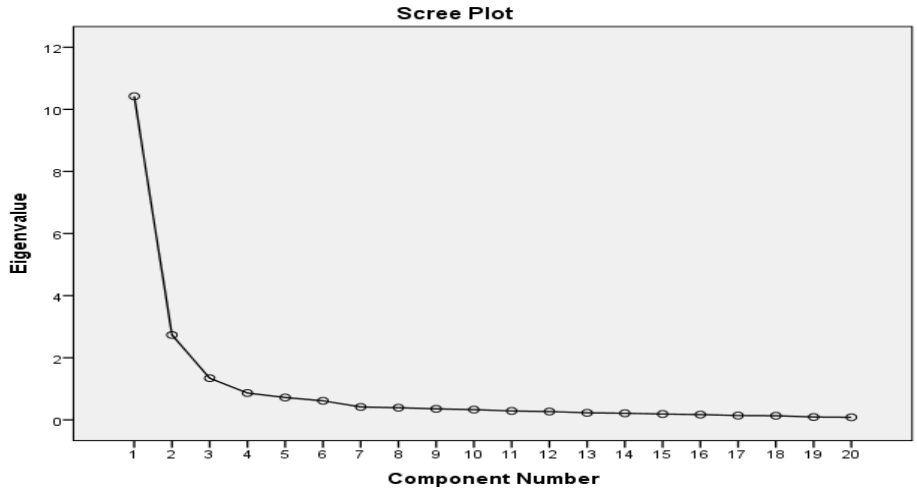
Factor Eigenvalues and Total Variance Values

Factor	Eigenvalue	Variance	Cumulative
1.	10,423	52,115	52,115
2.	2,735	13,676	65,791
3.	1,342	6,710	72,501

When the factor loadings are examined according to Table 1, it is seen that the first factor is significantly higher than the others. Similarly, 72.501% of the total variance explained is explained by the first factor as 52.115%, the second factor as 13.676% and the third factor as 6.710%. In addition, the Scree Plot shown in Figure 1 was analyzed to evaluate whether the items would be distributed among the factors.

Figure 1

Scree Plot



It was observed that the structure consisting of 20 items in Figure 1 was three-dimensional. In the applied analysis, the varimax rotation method was used, assuming that there was no relationship between the factors, and as a result, it was determined that some statements were related to more than one factor and the statements were grouped under three separate factors. However, in the next stage, the promax rotation method was preferred, assuming that there was a relationship between the factors, and at this stage, it was seen that the scale was divided into three factors. Promax rotation

methods are used to reveal the factor structure of the data set and to obtain meaningful and interpretable factors (Özdamar, 2003, pp. 246-247). Table 2 lists the items belonging to the factors and the effects of these items on the factors in detail.

Table 2

Factor-Item Load Distribution

Item	Factor 1	Factor 2	Factor 3
M12	0.937		
M7	0.897		
M6	0.888		
M11	0.887		
M9	0.879		
M13	0.870		
M10	0.857		
M5	0.853		
M8	0.829		
M16		0.915	
M15		0.830	
M17		0.772	
M14		0.721	
M18		0.577	
M20		0.565	
M19		0.400	
M4			0.899
M2			0.841
M3			0.833
M1			0.537

As shown in Table 2, the draft version of the scale consists of 20 items. The factor loadings of the items in the first factor range from .93 to .82, in the second factor from .91 to .40, and the third factor from .89 to .53. A thorough examination of the items within each factor led to the identification of three distinct factors. The first factor, 9 items related to educator tendencies towards the practice school, was labeled "Practice Teacher." The second factor, comprising seven items, was labeled "Administrator," and the third factor, with four items, was labeled "School Environment" perception. Following the exploratory factor analysis, a correlation analysis was conducted to assess the construct validity by analyzing the relationships between the factors and the overall score. The detailed results of this analysis can be found in Table 3.

Table 3

Item-Total Point Correlation Analysis Results

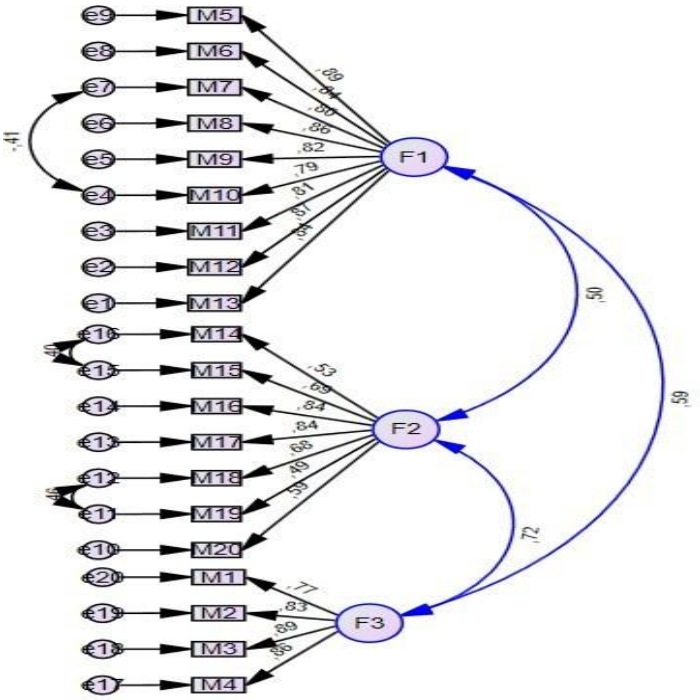
Item	Total points	Item	Total points
M1	0.635	M11	0.729
M2	0.646	M12	0.755
M3	0.723	M13	0.793
M4	0.690	M14	0.583
M5	0.774	M15	0.620
M6	0.765	M16	0.631
M7	0.721	M17	0.642
M8	0.736	M18	0.518
M9	0.730	M19	0.507
M10	0.733	M20	0.604

$p < .01$

According to Table 3, item-total score correlations range from r=.518 to r=.793, reflecting positive and significant relationships. Furthermore, Figure 2 shows the first CFA conducted in the first stage using the outputs obtained from the EFA.

Figure 2

Confirmatory Factor Analysis



As seen in Figure 2, the fit indices were analyzed using statistical methods and various modification strategies were applied to optimize these values. Generally, an x^2/ df ratio below 3 indicates a good model fit (Hair et al., 2014). In this context, the x^2/ df ratio for the scale was calculated as 1.752 and showed a strong fit. Regarding the RMSEA value, the literature suggests that the fit increases as the value approaches zero (Tabachnick & Fidell, 2013). The RMSEA value of .072 obtained for the scale indicates adequate fit. In addition, it is stated in the literature that CFI, TLI, GFI and IFI values vary between 0 and 1, and values closer to 1 indicate better fit (Kline, 2011; Worthington & Whittaker, 2006). It was observed that the CFI, GFI, TLI and IFI values for the Practice School Scale exceeded the acceptable thresholds defined in the literature. As a result, it was concluded that the scale showed a strong model fit in both EFA and CFA analyses, confirming the construct validity and the factor structure overlapped well with the data set.

Reliability With His Work Relating to Findings

To assess the reliability of the scale, several analyses were performed, including the calculation of Cronbach's alpha coefficient, evaluation of item-total and overall correlations, independent groups t-test comparing the top and bottom 27% groups, test-retest correlation analysis, and dependent groups t-test analysis. The detailed reliability coefficients for the scale are provided in Table 4.

Table 4

Cronbach Alpha Reliability Coefficients

Factor	Crohnbach's Alpha Value
Practice Teacher	.872
Managers	.799
School Environment	.845
Total	.899

Table 4 presents the reliability coefficients for each sub-dimension of the scale. The reliability coefficient for the "Administrator" sub-dimension is .80, for the "Practice Teacher" sub-dimension is .87, and for the "School Environment" sub-dimension is .84. Furthermore, the overall reliability coefficient of the scale was found to be .90. Following the reliability analysis, item-total and item-remainder correlations were calculated to assess the alignment of each item with the entire scale. The detailed results of these analyses are provided in Table 5.

Table 5

Item-Total/Residual Analysis Results

Factor	Item	Item-Total	Item-Residual
Managers	M1	0.694	0.681
	M2	0.731	0.718
	M3	0.738	0.711
	M4	0.739	0.709
Practice Teacher	M5	0.798	0.769
	M6	0.782	0.777
	M7	0.703	0.699
	M8	0.776	0.761
	M9	0.710	0.703
	M10	0.681	0.675
	M11	0.726	0.717
	M12	0.741	0.733
	M13	0.799	0.776
School Environment	M14	0.579	0.561
	M15	0.650	0.641
	M16	0.626	0.613
	M17	0.678	0.659
	M18	0.650	0.641
	M19	0.547	0.542
	M20	0.568	0.559

According to the data in Table 5, the item-total correlation coefficients range from r = .547 to r = .799, while the item-remaining correlation coefficients range from r = .541 to r = .777. These values are statistically significant at the .001 level. To assess the distinguishing characteristics of the three dimensions in the scale, the total scores of 209 participants were ranked. The arithmetic means of the participants in the lower and upper 27% of the group were compared using an independent sample t-test to identify significant differences. The findings from these analyses are presented in Table 6.

Table 6

Lower and Upper 27% Groups Between Independent t- Test The results of Comparison

Factor	Item	Group	N	Cover	ss	t	Sd	P
Managers	M1	Lower 27%	56	3.89	0.657	-12,859	209	.000
		Upper 27%	56	4.91	0.509	-12,859	209	
	M2	Lower 27%	56	3.87	0.631	-14,409	209	.000
		Upper 27%	56	4.88	0.591	-14,409	209	
	M3	Lower 27%	56	3.79	0.601	-12,287	209	.000
		Upper 27%	56	4.87	0.599	-12,287	209	
	M4	Lower 27%	56	3.91	0.587	-13,549	209	.000
		Upper 27%	56	4.92	0.511	-13,549	209	
Practice teacher	M5	Lower 27%	56	3.56	0.685	-12,859	209	.000
		Upper 27%	56	4.78	0.612	-12,859	209	
	M6	Lower 27%	56	3.63	0.468	-14,409	209	.000
		Upper 27%	56	4.79	0.387	-14,409	209	
	M7	Lower 27%	56	3.79	0.601	-12,287	209	.000
		Upper 27%	56	4.87	0.599	-12,287	209	
	M8	Lower 27%	56	3.91	0.587	-13,549	209	.000
		Upper 27%	56	4.92	0.511	-13,549	209	
	M9	Lower 27%	56	3.79	0.705	-12,689	209	.000
		Upper 27%	56	4.81	0.499	-12.671	209	
	M10	Lower 27%	56	3.67	0.680	-11.383	209	.000
		Upper 27%	56	4.64	0.622	-11.383	209	
	M11	Lower 27%	56	3.84	0.679	-13,859	209	.000
		Upper 27%	56	4.84	0.392	-13,859	209	
	M12	Lower 27%	56	3.60	0.849	-13,409	209	.000
		Upper 27%	56	4.78	0.436	-13,409	209	
	M13	Lower 27%	56	3.85	0.735	-13,287	209	.000
		Upper 27%	56	4.88	0.417	-13,287	209	
School Environment	M14	Lower 27%	56	3.72	0.727	-14,549	209	.000
		Upper 27%	56	4.83	0.399	-14,549	209	
	M15	Lower 27%	56	3.55	0.611	-14.671	209	.000
		Upper 27%	56	4.87	0.569	-14.671	209	
	M16	Lower 27%	56	3.66	0.587	-13,047	209	.000
		Upper 27%	56	4.81	0.513	-13,047	209	
	M17	Lower 27%	56	3.57	0.722	-12,859	209	.000
		Upper 27%	56	4.65	0.576	-12,859	209	
	M18	Lower 27%	56	3.81	0.584	-14,409	209	.000
		Upper 27%	56	4.81	0.425	-14,409	209	
	M19	Lower 27%	56	3.56	0.768	-12,287	209	.000
		Upper 27%	56	4.59	0.511	-12,287	209	
	M20	Lower 27%	56	3.73	0.702	-13,549	209	.000
		Upper 27%	56	4.58	0.528	-13,549	209	

The analysis presented in Table 6 indicates significant differences between the groups in the lower and upper 27% percentiles of the scale items ($p < .001$). These results affirm the scale's high reliability

and its capacity to effectively differentiate between varying levels. Another key method for evaluating the reliability of the scale is the test-retest approach, which assesses consistency and stability by examining the correlation scores from administering the scale to the same participants at different time intervals (DeVellis, 2017: 51-52; Özdamar, 2016: 85). In this study, the test-retest method was applied with a three-week interval, and the correlation coefficients obtained are provided in Table 7.

Table 7

From Test - Retest Analysis Correlation Coefficients

Factor	Item	N	r	P
Managers	M1-M1	47	.507	.000
	M2-M2	47	.487	.000
	M3-M3	47	.601	.000
	M4-M4	47	.587	.000
Application Teacher	M5-M5	47	.576	.000
	M6-M6	47	.617	.003
	M7-M7	47	.532	.000
	M8-M8	47	.384	.000
	M9-M9	47	.548	.000
	M10-M10	47	.560	.000
	M11-M11	47	.409	.000
	M12-M12	47	.513	.001
	M13-M13	47	.419	.000
School Environment	M14-M14	47	.511	.000
	M15-M15	47	.575	.000
	M16-M16	47	.618	.000
	M17-M17	47	.533	.000
	M18-M18	47	.388	.000
	M19-M19	47	.541	.000
	M20-M20	47	.544	.000

When Table 7 is examined, it is found that the dependent t-test results in the test-retest application of the scale are statistically significant at the $p < .05$ level. In particular, the p-value obtained in the dependent t-test exceeded 0.5, indicating that there is no significant difference between the two measurements (Patton, 2017: 272). These findings confirm the stability and sufficient reliability of the scale in the field of social sciences.

Discussion and Conclusion

This study aimed to create a valid and reliable tool for measuring prospective teachers' perceptions of the schools where they undertake their teaching practice. To assess the construct validity of the Teaching Practice Scale, which was designed using a 5-point Likert scale, the Kaiser-Meyer-Olkin (KMO) test and Bartlett's Sphericity Test were conducted prior to performing factor analysis. The resulting KMO value (.917) and Bartlett's test result (3006.234) were considered "excellent" according to Kaiser's (1974) criteria. These findings indicate that the sample size and its distribution were appropriate for factor analysis. An EFA was carried out with 209 participants to examine the scale's construct validity. The results of this analysis revealed that the scale items were grouped into three distinct dimensions: "Administrators," "Practice Teacher," and "School Environment." These dimensions were defined based on existing literature regarding teaching practices (Seçer, 2017).

Following the EFA, CFA was performed with 149 participants to validate the theoretical framework of the scale. The CFA results demonstrated that the proposed model exhibited satisfactory fit indices, confirming the factor structure of the scale (Worthington & Whittaker, 2006). The reliability analysis of the scale showed a Cronbach's Alpha coefficient of .830, indicating strong reliability (Büyüköztürk, 2018; Şeker & Gençdoğan, 2014). The internal consistency coefficients for the sub-dimensions ranged from αmax = .920 (Practice Teacher) to αmin = .894 (Administrators). Moreover, an item discrimination analysis using the independent group's t-test revealed that the scale items effectively distinguished between low and high score groups.

An important finding supporting the reliability of the Teaching Practice Scale is the item discrimination index. This index is a statistical measure that shows how effectively the items of the scale differentiate the general concept it aims to measure (Cohen and Swerdlik, 2018). Item discrimination analysis aims to evaluate the discrimination power of the scale by examining whether the items show significant differences between low and high scoring groups (Büyüköztürk, 2018). In this context, the analysis conducted using the independent sample t-test to compare the scores of the participants in the lower and upper 27% of the distribution revealed that there were statistically significant differences between the scale items. This finding shows that the items of the scale have both reliability and discrimination capacity.

Another method employed to assess the reliability of the Teaching Practice Scale is the test-retest technique. This method involves administering the scale to the same group of participants at two different times, separated by a set interval, to evaluate the consistency and stability of the scale (DeVellis, 2017: 51-52). In this study, the scale was administered to 47 prospective teachers on two occasions, with a three-week gap between applications. The results demonstrated a strong and statistically significant correlation ($p < .001$) between the scores from the initial and follow-up assessments. After thoroughly reviewing the scale development process and all associated analyses, it was concluded that the Teaching Practice Scale is a valid and reliable measurement tool. The detailed factor and item rankings of the scale are presented below:

Administrators: 1,2,3,4

Practice Teacher: 5,6,7,8,9,9,10,11,12,13

School Environment: 14,15,16,17,18,19,20

The scale development process is based on data obtained from preservice teachers who are practicing teachers at primary, secondary and high school levels. During the item creation phase, interdisciplinary differences between participants were not specifically addressed. This situation enabled the Application School Scale (ASS) to be designed in a way that can be applied to preservice teachers from different academic fields. Future studies can provide more robust evidence by conducting confirmatory factor analyses with different cohorts to evaluate the validity of the scale in different educational contexts (Görgen et al., 2013). In addition, an in-depth examination of teaching practice by relevant stakeholders, as an important component of teacher education, can contribute to the development of strategies that will increase the performance of preservice teachers and the quality of their professional experiences. The developed Application School Scale can make valuable contributions to the shaping of educational policies as well as teacher education programs. The scale evaluates preservice teachers' internship experiences in three main dimensions: administrators, practicing teachers and school environment. It provides meaningful data for the improvement of educational processes. In this context, it can help to create effective strategies to improve interactions between teacher candidates and the school environment. In addition, the scale can be used as a practical guide in the formation of educational policies and can offer strategic solutions to increase the efficiency of internship schools.

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Declarations:

1. Statement of Originality:

This work is original.

2. Author Contributions:

Concept: MT; ***Conceptualization:*** MT; ***Literature Search:*** MT; ***Data Collection:*** MT; ***Data Processing:*** MT; ***Analysis:*** MT; ***Writing – original draft:*** MT; ***Writing – review & editing:*** MT.

3. Ethics approval:

Ethics Committee Approval for this study was obtained by the decision of Istanbul Gelisim University Ethics Committee, dated 31.05.2024 and numbered 2024-08.

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The author declares no competing interests.

6. Sustainable Development Goals:

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Application School Scale (ASS) (Turkish Version)

OKUL YÖNETİMİ

1. Okul müdürümüz yardımsever ve ulaşılabilir birisidir.
2. Okul yönetimi disiplin konusunda, tutarlı ve adil bir yaklaşım sergiliyor.
3. Okul yönetimi öğretmenlere ve öğrencilere karşı saygılıdır.
4. Okul yönetimi sorumluluklarının bilincindedir.

ÖĞRETMEN İLİŞKİLERİ

5. Uygulama öğretmenimin mesleki deneyimi çok iyidir.
6. Uygulama öğretmenim gayretli birisidir.
7. Uygulama öğretmenim anlayışlı ve yardım sever birisi.
8. Uygulama öğretmenim derslerde farklı öğretim yöntem ve teknikleri kullanıyor.
9. Uygulama öğretmenimin sınıf yönetiminde iyi olduğunu düşünüyorum.
10. Uygulama öğretmenim dersleri gerçek hayatla ilişkilendirerek işliyor.
11. Uygulama öğretmenim öğrencilere karşı tutarlı ve adil bir yaklaşım sergiliyor.
12. Uygulama öğretmenimin meslektaşlarıyla iletişimi iyidir.
13. Uygulama öğretmenimiz aday öğretmenlerle ilgili plan ve programa önem veriyor.

ORTAM ve FİZİKİ ÇEVRE

14. Okulumuzun öğretmenler odası öğretmen sayısına göre yeterli büyüklüktedir.
15. Okulumuzun bahçesi öğrenci sayısına göre uygun büyüklüktedir.
16. Okulumuzun etkinlik alanları (spor, sanat vb.) öğrenciler için yeterlidir.
17. Okulumuz öğrenme için yeterli fiziksel donanıma sahiptir.
18. Okulumuzun akademik başarısı yüksektir.
19. Okulumuzun öğrencileri kendilerini geliştirmek için çok çalışırlar.
20. Okulumuz genel olarak temizlik konusunda iyidir.

Application School Scale (ASS) (English Version)

SCHOOL ADMINISTRATION

1. Our school principal is helpful and approachable.
2. The school administration takes a consistent and fair approach to discipline.
3. The school administration is respectful towards teachers and students.
4. School management is aware of its responsibilities.

TEACHER RELATIONSHIPS

5. My practice teacher's professional experience is very good.
6. My practice teacher is a diligent person.
7. My practice teacher is an understanding and helpful person.
8. My practice teacher uses different teaching methods and techniques in the lessons.
9. I think my practice teacher is good at classroom management.
10. My practice teacher teaches lessons by relating them to real life.
11. has a consistent and fair approach towards students.

12. My practice teacher has good communication with his colleagues.
13. Our practice teacher attaches importance to the plan and program for candidate teachers.

ENVIRONMENT AND PHYSICAL ENVIRONMENT

14. Our school's teachers' room is large enough for the number of teachers.
15. Our school's garden is a suitable size for the number of students.
16. Our school's activity areas (sports, arts, etc.) are sufficient for students.
17. Our school has adequate physical equipment for learning.
18. Our school's academic success is high.
19. Our school's students work hard to improve themselves.
20. Our school is generally good at cleanliness.

Öğretmen Eğitimi ve Öğretim

Eğitim Bilimleri Enstitüsü

Araştırma Makalesi
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Künye:
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Yıl: 2025
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Uygulama Okulu Değerlendirme Ölçeği: Geçerlik ve Güvenirlik Çalışması

Genişletilmiş Özet

Giriş

Öğretmen adaylarının mesleğe hazırlanma süreçlerinde uygulama okullarında edindikleri deneyimler kritik bir rol oynamaktadır. Eğitim fakültelerinde yürütülen teorik dersler, öğretmenlik mesleğinin bilgi boyutunu güçlendirirken, uygulama okulları aracılığıyla kazanılan deneyimler bu bilgilerin sahaya aktarılması, öğretmenlik becerilerinin geliştirilmesi ve mesleğe yönelik tutumların pekiştirilmesi açısından vazgeçilmezdir. Öğretmen adayları, uygulama sürecinde okul yöneticileri, uygulama öğretmenleri ve okulun genel ortamı ile doğrudan etkileşim kurmakta; bu etkileşimler onların mesleki gelişimlerini, motivasyonlarını ve meslek algılarını şekillendirmektedir. Dolayısıyla, öğretmen adaylarının uygulama okullarındaki deneyimlerini sağlıklı ve geçerli bir şekilde ölçebilecek ölçeklerin geliştirilmesi, öğretmen yetiştirme sisteminin niteliğini artırmaya katkı sağlayacaktır. Ancak literatürde, aday öğretmenlerin uygulama sürecine ilişkin algılarını bütüncül olarak ölçebilecek, psikometrik açıdan geçerli ve güvenilir bir ölçme aracına ihtiyaç duyulduğu görülmektedir. Bu araştırma, söz konusu ihtiyacı karşılamak amacıyla "Çok Boyutlu Uygulama Okulu Ölçeği (ÇOÖ)"ni geliştirmeyi amaçlamaktadır.

Yöntem

Araştırma, nicel araştırma desenine dayalı olup ölçek geliştirme süreci üç aşamalı bir yöntemle yürütülmüştür. İlk aşamada, ölçek maddeleri ilgili alan yazın taraması ve uzman görüşleri doğrultusunda hazırlanmış, taslak form elde edilmiştir. Daha sonra, ölçeğin yapı geçerliliğini incelemek amacıyla 209 öğretmen adayından elde edilen veriler Açımlayıcı Faktör Analizi (AFA) ile analiz edilmiştir. AFA sonuçları, ölçeğin üç faktörlü bir yapıya sahip olduğunu ortaya koymuştur. Bu faktörler sırasıyla "Yöneticiler," "Uygulama Öğretmeni" ve "Ortam" boyutları olarak adlandırılmıştır.

İkinci aşamada, belirlenen üç faktörlü yapının doğrulanması amacıyla 149 katılımcıdan elde edilen veriler üzerinde Doğrulayıcı Faktör Analizi (DFA) gerçekleştirilmiştir. DFA sonucunda elde edilen uyum indeksleri (χ^2/sd, RMSEA, CFI, GFI vb.) ölçeğin önerilen faktör yapısını doğruladığını göstermiştir.

Üçüncü aşamada ise ölçeğin güvenirliği test edilmiştir. Bu kapsamda, 47 öğretmen adayı üzerinde test-tekrar test uygulaması yapılmış ve iki ölçüm arasındaki korelasyon katsayısı yüksek bulunmuştur. Ayrıca, ölçeğin Cronbach Alpha güvenirlik katsayısı .83 olarak hesaplanmıştır. Madde-toplam ve madde-kalan korelasyonları da incelenmiş ve ölçeğin iç tutarlılığı güçlü bir şekilde desteklenmiştir.

Tartışma ve Sonuç

Araştırmanın sonucunda geliştirilen "Çok Boyutlu Uygulama Okulu Ölçeği (ÇOÖ)," öğretmen adaylarının uygulama okullarındaki deneyimlerine ilişkin algılarını ölçmek üzere geçerli ve güvenilir bir ölçme aracı olarak ortaya konulmuştur. Ölçeğin üç boyutlu yapısı, uygulama sürecinde aday öğretmenlerin karşılaştığı başlıca unsurları kapsamaktadır: okul yöneticileriyle kurulan ilişkiler, uygulama öğretmenlerinden alınan destek ve rehberlik ile uygulama ortamının genel özellikleri. Ölçeğin hem yapı geçerliliği hem de güvenirlik göstergeleri, ölçüm aracının akademik çalışmalarda ve uygulamada kullanılabilecek nitelikte olduğunu kanıtlamaktadır. Elde edilen bulgular, öğretmenlik uygulaması sürecinin yalnızca adayın sınıf içi deneyimlerinden ibaret olmadığını, aynı zamanda okul yöneticilerinin tutumlarının, uygulama öğretmenlerinin rehberliğinin ve okul ortamının niteliğinin de mesleki gelişim üzerinde belirleyici olduğunu göstermektedir. Bu yönüyle geliştirilen ölçek, öğretmen yetiştirme programlarında uygulama süreçlerinin değerlendirilmesi ve iyileştirilmesi için önemli bir araçtır. Uygulama okullarında yöneticilerin öğretmen adaylarını destekleyici tutum sergilemeleri, onların mesleğe uyumlarını kolaylaştırmakta ve motivasyonlarını artırmaktadır. Benzer şekilde, uygulama öğretmenlerinin rehberliği, adayların mesleki becerilerini geliştirmelerinde kritik rol oynamaktadır. Ortam faktörü ise okulun fiziki, sosyal ve kültürel koşullarını kapsamakta; olumlu bir ortam, adayların öğrenme süreçlerini ve mesleki deneyimlerini zenginleştirmektedir.

Hakem: Dış, Bağımsız.
Teşekkür: -
-

Beyanname:

1. Özgünlük Beyanı:

Bu çalışma özgündür.

2. Yazar Katkıları:

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3. Etik Kurul İzni:

Bu çalışma için Etik Kurul Onayı, İstanbul Gelişim Üniversitesi Etik Kurul Başkanlığı'nın 31.05.2024 tarihli ve 2024-08 sayılı kararı ile alınmıştır.

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Yazar, herhangi bir çıkar çatışması olmadığını beyan etmektedir.

6. Sürdürülebilir Kalkınma Amaçları:

☐ ☐ ☐ ☒ ☐ ☐ ☐ ☐

☒ ☐ ☐ ☐ ☐ ☐ ☐ ☐

☐ ☐ ☐