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Development of "Teachers' Attitude Scale Towards Students" (Validity and Reliability Analysis) *

"Öğretmenlerin Öğrencilere Yönelik Tutum Ölçeği" Geliştirme (Geçerlik ve Güvenirlik Analizleri)

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ABSTRACT

Attitudes play an important role in the formation of behaviours. Attitude is defined as an emotional reaction to an object, person or behaviour. People's attitudes towards objects or situations can be positive or negative. Teachers' attitudes and beliefs about students' learning abilities affect achievement. When teachers have high expectations of students and are willing to take personal responsibility for them, students participate more effectively in the learning process and consequently learn more permanently. This research aims to develop a scale by performing validity and reliability analyses of the "Teachers' Attitudes Towards Students Scale"(TATSS). In this study, which aims to develop a scale to determine teachers' attitudes towards students, the survey model, one of the quantitative research models, was used. The scale consists of a total of 19 items and two subscales. Scale items covering teachers' attitudes towards students, factor I: Effort for Students; II. Factor: It consists of the Dimension of Being Appreciated by Students. As a result of the reliability analysis, the " TATSS " was accepted to be a reliable tool (α = 0.912).

Keywords: *Teacher, attitude, teacher attitudes, attitude towards student, attitude towards student scale.*

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ÖZ

Tutumlar, davranışların oluşumunda önemli bir rol oynamaktadır. Tutum, bir nesneye, kişiye veya davranışa karşı duygusal bir tepki olarak tanımlanır. İnsanların nesnelere veya durumlara karşı tutumları olumlu veya olumsuz olabilir. Öğretmenlerin öğrencilerin öğrenme yeteneklerine ilişkin tutum ve inançları başarıyı etkilemektedir. Öğretmenlerin öğrencilerden yüksek beklentileri olduğunda ve onlar için kişisel sorumluluk almaya istekli olduklarında, öğrenciler öğrenme sürecine daha etkili bir şekilde katılırlar ve sonuç olarak daha kalıcı öğrenirler. Bu araştırma, "Öğretmenlerin Öğrencilere Yönelik Tutumları Ölçeğinin (ÖÖYTÖ) geçerlik ve güvenirlik analizlerini yaparak bir ölçek geliştirmeyi amaçlamaktadır. Öğretmenlerin öğrencilere yönelik tutumları belirlemek için ölçek geliştirmeyi amaçlayan bu araştırmada nicel araştırma modellerinden biri olan tarama modeli kullanılmıştır. Ölçek toplam 19 madde ve iki alt boyuttan oluşmuştur. Öğretmenlerin öğrencilere yönelik tutumlarını kapsayan ölçek maddeleri, faktör I: Öğrencilere Yönelik Çaba; II. Faktör: Öğrenciler Tarafından Değer Görülme Boyutundan oluşmaktadır. Güvenirlik analizi sonucunda "TATSS" ölçüm güvenilirliğine sahip bir araç olarak kabul edilmiştir (α = 0,912).

Anahtar Sözcükler: *Öğretmen, tutum, öğretmen tutumları, öğrenciye yönelik tutum, öğrenciye yönelik tutum ölçeği.*

INTRODUCTION

Attitudes play an important role in the formation of behaviors. Attitudes are very effective in the formation of the quality of people's reactions to objects and events. Attitude influences an individual's choice of action and response to specific stimuli. Attitudes are latent and not directly observable, but they are revealed by actions and behaviors that are observable (Mishra & Singh, 2017). Attitude is defined as a feeling toward some object, person, or behavior (Pryor & Pryor, 2005). People's attitudes towards objects or situations can be positive or negative.

Zimbardo and Leippe define attitude as: "An evaluative disposition toward some object based upon cognitions, affective reactions, behavioral intentions, and past behaviors... that can influence cognitions, affective responses, and future intentions and behaviors" (1991, p. 51, quoted by: Mishra, & Singh, 2017). According to Oskamp (1997), attitude is a mental structure or tendency.

Attitudes and beliefs are important concepts in understanding teachers' thought processes, classroom practices, change, and learning to teach. While attitudes received considerable

attention in teaching and teacher education research between the early 1950s and the early 1970s, teacher beliefs only recently gained prominence in the literature (Richardson & Sikula,1996).

The most basic characteristics that makeup personality are attitudes and self-perception. It is a fact that the values, feelings, and thoughts that make up the teacher's personality have important effects on the student. The most important feature of teachers that affects their students is their attitudes toward the profession (Gürkan, 1993: 7-9). Teacher status does not only require the role of informing; teachers influence students in all aspects. If teaching was the job of giving information, teaching with tools such as teaching machines, television, and radio could be effective. In societies that are technologically advanced and beyond technology, the teacher problem could easily be solved. However, behavioral sciences show us that teachers' attitudes and behaviors affect students (Ünişen & Demirel, 2018).

Teacher attitudes that include a commitment to student learning and personal learning are connected to student achievement (Strong, 2007; Wilkerson and Lang, 2007, quoted by Scrivner, 2009). Teachers' attitudes and beliefs about students' learning abilities affect success. When teachers have high expectations of them and are willing to take personal responsibility for them, students participate more effectively in the learning process, and as a result, they learn more permanently (Lee & Loeb, 2000).

In this article, a scale was developed to determine teachers' attitudes towards students. Developing the scale is important in determining teacher attitudes. The development of the TATSS is a contribution to the field of research on the teacher training process.

In order to determine teachers' attitudes toward students, it was first investigated whether teachers had an attitude scale toward students. Such a scale has not been developed before in Turkey, where the research was conducted. When the literature was examined, it was determined that a scale was developed by Ng (2002) to determine teachers' attitudes toward students. In the scale developed by Ng (2002), teacher attitudes are written in two separate groups: in the first group, there are eight items consisting of conservative-

autocratic attitudes, and in the second group, there are eight items consisting of liberal-democratic attitudes. The scale consists of a total of 16 items. In this study, attitude items were created based on teachers' understanding of classroom management. Societies' definitions of the teaching profession and student behavior have brought different competencies to the teaching profession. In this context, the idea of developing a new scale has emerged due to reasons such as the 22 years that have passed since the first study, the process of adapting the scale to Turkish, the item structure of the scale, and cultural differences. Developing the scale from a different cultural perspective has also been seen as a necessity in terms of teacher education.

Aims of the study

Considering the theoretical foundations mentioned above, this study aims to develop a valid and reliable scale to measure teachers' attitudes towards students.

METHOD

This research, which aims to develop a scale to determine teachers' attitudes towards students (TATSS), is descriptive research in the survey model. Descriptive research is research that aims to reveal a situation as it is (Creswell, 2012).

Sample

The sample of this study consisted of 325 teachers working in public and private schools affiliated to the Ministry of National Education and reached through the convenience sampling method. Exploratory factor analysis was conducted with the participation of 325 teachers. In the literature, there are different opinions about the sample size in the scale development process (Hair, 2014; Levy & Lemeshow, 2013; Lohr, 2021). While there is little agreement among authors concerning how large a sample should be, the general recommendation is that the larger, the better (Pallant, 2020). Some scientists have argued that the sample for factor analysis should consist of at least 300 people (Tabachnick & Fidell, 2007). For a 20-item factor analysis, 100 subjects would be 100 few, but for a 90-item factor analysis, 400 might be adequate (DeVellis & Thorpe, 2021). However, they do concede that a smaller sample size (e.g., 150 cases) should be sufficient if solutions

have several high-loading marker variables (above .80) (Pallant, 2020). Tinsley & Tinsley (1987) suggest that when the sample is as large as 300, the ratio can be relaxed. Comrey (l988) stated that a sample size of 200 is adequate in most cases of ordinary factor analysis that involve no more than 40 items (Cited: DeVellis., & Thorpe, 2021). Comrey & Lee (1992) give as a guide sample sizes of 50 as very poor, 100 as poor, 200 as fair, 300 as good, 500 as very good, and 1000 as excellent (Cited: Tabachnick & Fidell, 2007). As a general rule of thumb, it is comforting to have at least 300 cases for factor analysis (Tabachnick & Fidell, 2007). Comrey and Lee (1992), MacCallum et al. (1999), and Tavşancıl (2006) stated that the sample size should be at least five times the number of items.

Data collection tools

In the research, firstly, the relevant literature was examined in order to develop TATSS, and then the draft item writing process began. Teachers' attitude items towards students were written with the framework of making an effort for students, believing in students, and instructional values. Attitude items: It consists of items including cognitive, affective, and behavioral dimensions.

In the present research, the instrument development process was followed in six stages, which are presented in table 1.

Table 1. Developmental process of the scale

Stage 1	**Stage 2**	**Stage 3**	**Stage 4**	**Stage 5**
Relevant literature related to the attitude toward student was thoroughly reviewed. In line with expert opinions, the trial form was designed as forty-four items in Likert type.	The opinions of two experts were obtained for the clarity, originality and relevance of the items in the forty-four-item draft scale form. Necessary structural arrangements were made in the items in line with the expert opinions.	Lawshe technique was used to determine the content validity of the trial scale, and opinions were received from eight field expert faculty members. As a result, a fifty-three-item trial form was created by adding 9 items to the forty-four-item trial form.	fifty-three item form which scope validity was determined was applied to the sample group of 325.	Finally exploratory factor analysis was conducted to the data in order to test the structure validity of the scale and to specify the dimensions of the scale.

Content validity is determined according to expert opinion or by looking at the equivalent scale form and the correlation coefficient (predictive power) between them (Anastasi, 1988). The items of the 44-item five-point Likert-type draft attitude scale were written. In order to determine whether the items of the draft scale would be sufficient to measure teacher attitudes, corrections were made to the scale items by taking the opinion of an academician who is an expert in the field of educational sciences (Hogan, 2021).

Before factor analysis, reliability analysis, and other statistical analyses are performed on the scales, the content validity of the scale must be determined (Lawshe, 1975; Allen & Yen, 2002). In this regard, content validity analyses were conducted to determine whether each item in the draft scale form would measure the feature it was intended to measure (Lawshe, 1975). In order to ensure the content validity of the scale, eight faculty members working in the field of Educational Sciences were asked about the suitability of the items in the trial draft scale form, and corrections were made in line with their opinions. Nine new items were added to the 44 items in the draft scale in line with expert opinions. The trial draft form of the scale consisted of 53 items.

The scale was created in a five-point Likert type; in accordance with the format of the Likert type grading scale, the responses were as follows. The scores were distributed as shown in Table 2.

Table 2. Distribution of Scores in The Scale

Point	Score distribution	Total Score distribution	Level of agreement
1	1.00 – 1.80	19.00-34.20	Disagree
2	1.81 – 2.60	34.21-49.40	Partially agree
3	2.61 – 3.40	49.41-64.61	Moderately Agree
4	3.41 – 4.20	64.62-79.82	Agree
5	4.21 – 5.00	79.83-95.00	Totally agree

FINDINGS

The Results of the Exploratory Factor Analysis of the TATSS

Before performing the principal components analysis on the draft scale, the corrected item-total correlations were examined in order to determine the measurement power of each of the 53 items in the scale (Akyüz, 2018; Yeşilyurt., & Çapraz, 2020). Items 20, 21, 25, 27, 34, 36, 38, 41, 43, 45, and 46 with corrected item-total correlations below 0.20 were excluded from the draft scale. After removing 11 items (item-total correlations less than 0.20) from the 53-item draft scale, 42 items remained.

The suitability of the draft scale for exploratory factor analysis was tested with KMO and Bartlett's Test. KMO and Bartlett's Test results are given in Table 3.

Table 3. KMO And Bartlett's Test Results

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.908
Bartlett's Test of Sphericity	Approx. Chi-Square	6636.77
	df	861
	Sig.	.000

For exploratory factor analysis, the KMO value is required to be greater than 0.70. This test gives us information about the suitability of the data set and sample size for exploratory factor analysis. The KMO test value was calculated as = 0.908. Since the KMO test value is greater than 0.70, it has been determined that the data set is suitable for factor analysis (Büyüköztürk, 2005; Kalaycı, 2016; Pohlmann, 2004).

Whether the scale has more than one sub-dimension was tested with Hotelling's T-Squared Test (Akyüz, 2018). Hotelling's T-squared test results are given in Table 4.

Tablo 4. Hotelling's T-Squared Test Results

Hotelling's T-Squared	F	df1	df2	Sig
13065,255	211.706	52	273	.000

When the result of Hotelling's T2 statistics in Table 4 is examined, it is seen that there is more than one sub-dimension in the scale. It was determined that the answers given to the scale were significantly different from each other ($p<0.05$) (Akyüz, 2018).

After the data obtained in the study were found suitable for exploratory factor analysis, principal component analysis was performed to determine the construct validity of the scale and factors. It was aimed to determine the factor structure of the experimental draft scale consisting of 42 items by performing basic components analysis. In PCA, analysis was performed without intervening in the number of factors, and the Varimax vertical rotation technique was applied to reveal the sub-factors of the scale (Büyüköztürk, 2005; Yurdabakan, 2017). In the analysis, factor loadings explained variance rates, and the Scree Plot of the common factor variance of the factors on each variable was also examined. The factor loadings of the items were chosen as the lowest limit of 0.30. Table 5 shows the Total variances explained in the scale items, and the factor structure of the scale is given.

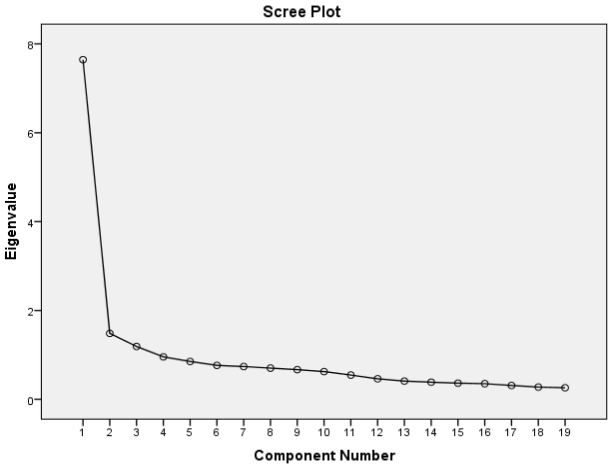
Table 5. Total Variance Explained for The Items of The Scale

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.645	40.23	40.23	7.64	40.23	40.23	4.85	25.57	25.57
2	1.484	7.81	48.04	1.48	7.81	48.04	4.27	22.47	48.04
3	1.190	6.26	54.31						
4	.956	5.03	59.34						

(Extraction Method: Principal Component Analysis)

In the first principal component analysis applied to the scale, ten factors with an eigenvalue above 1 (Kaiser., & Rice, 1974) were observed. However, although the items were mostly observed in a single factor (40%) except for a few items that were distributed to different factors, a two-factor structure was revealed in the scree plot graph (Figure 1).

Figure 1. Scree plot graphic regarding the factor structure of the scale



Principal component analysis was repeated in order to determine the factor structure of the scale and to remove items in more than one factor from the scale. As a result of the analyses, 2, 3, 4, 5, 6, 7, 9,10, 11, 16, 17, 18, 19, 26, 29, 30, 35, 39, 47 items were removed from the scale. After these items were removed, a two-factor structure was observed in the scale.

Varimax rotation analysis was performed to determine the distribution of the items in the scale to the sub-factors of the scale. Item 12 had a common variance value of less than 0.30, and items 33, 48, and 49 were removed from the scale because their factor loads overlapped with other factors. As a result of repeated varimax vertical rotation, the two-factor structure of the scale was tested, and 19 items remained on the scale. In Table 5, items in the scale, common variances of items, item-total correlations, factor loadings of items, arithmetic averages of items, standard deviations, and item discrimination results are given.

Table 6. TATSS Factor Analysis Results

Item no		Factor 1: Endeavor for Students	ICV	ITC	Fac1	Fac2	t (Alt%27-Üst%27)	p
Initial Numbers	Final Numbers							
a1	1	I attach importance to students' opinions.	.345	.517	.521		-8.062	.000
a8	2	I believe in the importance of being impartial when evaluating students.	.407	.509	.627		-5.419	.000
a13	3	I respect students' values and beliefs.	.373	.460	.596		-7.506	.000
a14	4	I respect the personal rights and responsibilities of my students.	.593	.579	.755		-8.099	.000
a15	5	I treat students with respect	.537	.583	.667		-7.686	.000
a28	6	I am happy to teach students something.	.465	.565	.604		-6.384	.000
a32	7	I treat students democratically in solving problems.	.494	.624	.614		-9.052	.000
a42	8	I am against any form of violence against students.	.277	.415	.469		-8.453	.000
a51	9	I appreciate my students when they accomplish a task.	.502	.566	.599		-6.523	.000
a52	10	I treat my students with respect when I give feedback.	.463	.521	.630		-8.265	.000
a53	11	I reach an agreement with my students in solving problems that arise in teaching activities.	.570	.624	.689		-10.382	.000
Factor 2: Appreciate for Students						Fac2		
a22	12	I make an effort to solve students' problems.	.642	.613		.774	-10.193	.000
a23	13	I am happy to give of myself to my students.	.671	.598		.806	-9.595	.000
a24	14	I am happy to help students solve their problems.	.644	.625		.775	-9.773	.000
a31	15	During my communication with students. I treat them sincerely.	.467	.631		.567	-9.182	.000
a37	16	I am happy to greet my students.	.393	.518		.512	-6.586	.000
a40	17	It doesn't bother me when students who behave illegally at school/class are punished.	.311	.520		.470	-5.576	.000
a44	18	All students are precious for me.	.587	.627		.692	-9.170	.000
a50	19	I believe that collaborating with students will increase their success.	.388	.518		.580	-8.001	.000

*ITC: Item Total Correlation
*ICV: Item Common Variance
*All t values at the level p< 0.001are significant

As a result of principal component analysis and the varimax vertical rotation technique, 23 items were removed from the 42-item draft scale. The scale consisted of 19 items

grouped under two sub-dimensions. The first sub-dimension of the scale consists of 11 items (1, 8, 13, 14, 15, 28, 32, 42, 51, 52, 53) and explains 40.238 % of the total Variance. The factor loadings of the items in this dimension varied between .521 and .755 coefficients. The second sub-dimension consists of 8 items (22, 23, 24, 31, 37, 40, 44, 50) and explains 7.812 % of the total variance. The factor loadings of items in this factor range between .470 and .806. It is observed that the total variances of the items in the whole scale vary between .470 and .806.

As the last stage of construct validity, it was required to identify the item discrimination index for each item. When the arithmetic means of Table 6, lower and upper 27% groups, were compared with the t-test, it was determined that there was a statistically significant difference between the groups ($p<0.05$). This shows us that each item has a distinctive feature.

Reliability Analysis

In order to determine the internal consistency of the scale. Cronbach's alpha values were calculated for the whole scale and for its three sub-dimensions. In Table 7 the reliability analysis and the explanation values of the sub-dimensions of the sub-dimensions in the scale are given.

Table 7. Reliability Analysis Results of The Scale and Sub-Dimensions.

Factors	N	Items No	$\bar{X}$	Variance Explained	Cronbach Alpha
Factor 1:	325	a1. a8. a13. a14. a15. a28. a32. a42. a51. a52. a53	4.68	%40.23	.871
Factor 2:	325	a22. a23. a24. a31. a37. a40. a44. a50	4.57	%7.81	.853
Total	325		4.63	%48.04	.912

Reliability analysis was conducted to identify whether the items were consistent with each other or not. When the table is examined, it was revealed that the reliability coefficient of the first sub-dimension (Endeavor for Students, Factor 1) was found to be $\alpha = 0.871$, the

second sub-dimension (Appreciate for Students, Factor 2) α = 0.853. The reliability coefficient of the whole scale was determined to be α = 0.912. There are different opinions among researchers regarding the scale reliability coefficient. Lui (2003) stated that a value above 0.70 is acceptable for the reliability of the scale. According to Özdamar (2013), reliability coefficient values between 0.80 and 0.90 ($0.80 \leq \propto \leq 1.00$) are accepted as high-reliability levels. According to this criterion, the reliability coefficient of the "Teachers' attitude towards students" scale is quite high since α = 0.912. In addition, the Spearman-Brown internal consistency coefficient was calculated for the two equal halves of the scale and was observed to be quite high, "0.887". Based on this result, it can be said that all items in the scale measure the same feature. Therefore, it can be said that the scale can make reliable measurements.

Table 8. Correlation Results Between Factors and Total Scale

Factors	N	Fac 1	Fac 2	p
Factor 1	325	-	.691**	.000
Factor 2	325	.691**	-	.000
Total	325	.927**	.911**	.000

**p<.01 Correlation is significant at the 0.01 level (2-tailed).

When the correlation coefficients between the independent factors and a whole scale were analyzed, the correlation between the first and the second factor was found to be r =.691, and between the first factor and the total scale was found to be r =.927 and between the second and the total scale was found to be r =.927. These results indicated a medium level of positive correlations among the sub-dimensions of the scale. However, a high level of positive correlation was found between the sub-factors of the scale and the whole scale.

CONCLUSION AND DISCUSSION

This research aims to develop a scale by performing validity and reliability analyses of the "Teachers' Attitudes Towards Students Scale"(TATSS). In order to determine teachers' attitudes towards students, it was investigated whether there was an existing

scale, and no previously developed scale was found in Turkey, where the research was conducted. It was checked whether there was a scale outside Turkey, and it was determined that it was a scale developed by Ng (2002). Ng (2002) developed a scale to assess teachers' attitudes toward students. This scale includes items that measure teachers' conservative-autocratic attitudes in one part and their liberal-democratic attitudes in another. The scale was shown to have internal reliability and a clear factor structure. The study also found that experienced teachers were generally more conservative and autocratic in their approach to students, while trainee teachers tended to adopt more liberal and democratic attitudes.

In this scale, teacher attitudes consist of 16 items, including eight positive and eight negative items. It aimed to develop a new valid and reliable scale due to reasons such as the adaptation process of the scale, item structure, and cultural differences.

As the first step of the scale development process, a total of 44 items were written, item validity rates and item validity indexes were determined according to the Lawshe technique, and a draft scale of 53 items was created by adding nine new items in line with expert opinions. The draft scale consisting of 53 items was prepared for pilot application and applied to 325 teachers. Exploratory factor analysis was then performed on the data obtained. As a result of EFA, the scale consisted of 19 items and two subscales. Scale items covering teachers' attitudes towards students, factor I: Effort for Students (1-11. Items); II. Factor: It consists of the Dimension of Being Appreciated by Students (12-19. Items).

The findings obtained from the research show that " TATSS is an effective tool for assessing teachers' attitudes towards students and shows strong psychometric properties. As a result, reliability and validity tests support that " TATSS " is both valid and reliable ($\alpha = 0.912$). According to the findings obtained from the research, there was a moderate positive correlation between the sub-dimensions of the scale; however, a high level of positive correlation was found between the sub-factors of the scale and the entire scale.

Note:

In this study, the authors' personal rights were protected, and their opinions were taken into account. There is no disagreement between the authors regarding article writing.

REFERENCES

Akyüz, H. E. (2018). Yapı geçerliliği için doğrulayıcı faktör analizi: Uygulamalı bir çalışma. *Bitlis Eren Üniversitesi Fen Bilimleri Dergisi*, *7*(2), 186-198.

Allen, M. J., & Yen, W. M. (2002). Introduction to measurement theory. Long Grove, IL: Wavel and Press.

Anastasi, A. (1988). *Psychological testing (6th ed.)*. New York: Macmillan.

Büyüköztürk, Ş. (2005). Questionnaire development. *The Journal of Turkish Educational Sciences*, *3*(2), 133-151.

Comrey, L. A., & Lee, H. B. (1992). *A first course in factor analysis (2nd ed.).* Hillside, NJ: Lawrence Erlbaum Associates.

Creswell, J. W. (2012). Educational research: planning, conducting, and evaluating quantitative and qualitative research, Pearson.

DeVellis, R. F., & Thorpe, C. T. (2021). *Scale development: Theory and applications*. Sage publications.

Gürkan, T. (1993). *İlkokul Öğretmenlerinin Öğretmenlik Tutumları ile Benlik Kavramları Arasındaki İlişki.* Ankara: Sevinç Matbaası.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2013). *Multivariate Data Analysis*. Pearson Education Limited.

Hogan, T. P. (2019). *Psychological testing: A practical introduction*. John Wiley & Sons.

Kaiser, H. F., & Rice, J. (1974). Little jiffy, mark IV. *Educational and psychological measurement*, *34*(1), 111-117.

Kalaycı, Ş. (2016). *SPSS uygulamalı çok değişkenli istatistik teknikleri (7. Baskı).* Ankara: Asil Yayın Dağıtım, 426 p.

Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology*, *28*(4), 563–575.

Lee, V.E., & Loeb, S. (2000). School size in Chicago Elementary Schools: Effects on Teachers' Attitudes and Students' Achievement University of Michigan, *American Educational Research Journal*, 37(1), pp. 3–31.

Levy, P. S., & Lemeshow, S. (2013). *Sampling of populations: methods and applications*. John Wiley & Sons.

Lohr, S. L. (2021). *Sampling: design and analysis*. CRC press.

Liu, K. (2003). Using Liu-type estimator to combat collinearity. *Communications in Statistics-Theory and Methods*, *32*(5), 1009-1020.

MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. *Psychological methods*, *4*(1), 84.

Mishra, S., & Singh, A. (2017). Higher education faculty attitude, motivation, perception of quality and barriers towards OER in India. In C. Hodgkinson-Williams and P. B. Arinto (Eds.), *Adoption and impact of OER in the Global South*. Chapter 12 advance publication. DOI: 10.5281/zenodo.161282

Ng, A. K. (2002). The development of a new scale to measure teachers' attitudes toward students (TATS). *Educational Research Journal*, *17*(1), 63–77.

Oskamp, S. (1997). *Attitudes and opinions.* Englewood Cliffs, NJ: Prentice-Hall.

Özdamar, K. (2013). Paket programlar ile istatistiksel veri analizi 1. cilt. Eskişehir: *Ankara: Nisan Kitapevi*, 27-36.

Pallant, J. (2020). *SPSS survival manual: A step-by-step guide to data analysis using IBM SPSS*. McGraw-Hill Education (UK).

Pohlmann, J. T. (2004). Use and interpretation of factor analysis in the Journal of Educational Research: 1992–2002. *J Educ Res*, 98(1): 14–23.

Pryor, B. W., & Pryor, C. R. (2005). *The school leader's guide to understanding attitude* and *influencing behavior: Working with teachers, parents, students, and the community.* Thous and Oaks, CA: Corwin Press.

Richardson, V., & Sikula, J. (1996). H handbook of research on teacher education. *The role of attitudes and beliefs in learning to teach*, 102-119. New York: Macmillan.

Scrivner, C. M. (2009). *The relationship between student achievement and teacher attitude: A correlational study* (Doctoral dissertation, Northcentral University).

Tabachnick, B. G., & Fidell, S. L. (2007). Using Multivariate Statistics (Fifth Edition) Pearson Education. Inc.

Tavşancıl E (2006) *Tutumların ölçülmesi ve SPSS ile veri analizi* (3. Basım) Nobel Yayın Dağıtım, Ankara.

Tinsley, H. E. A., & Tinsley, D. J. (1987). *A theory of career development and counseling: A research perspective. In Career development and counseling: Putting theory and research to work* (pp. 17-45). Wiley.

Ünişen, A., & Demirel, N. (2018). Öğretmenlerin öğretmenlik mesleğine ilişkin tutum ölçeğinin geliştirilmesi. *Elektronik Sosyal Bilimler Dergisi*, *17*(67), 997-1013.

Yeşilyurt, S., & Çapraz, C. (2020). Bilgisayar sunumlarına yönelik görüşler ölçeği (BSYGÖ): geçerlik ve güvenirlik Çalışması. *Kastamonu Eğitim Dergisi*, *28*(1), 220-233.

Yurdabakan, İ., & Çüm S. (2017). Davranış Bilimlerinde Ölçek Geliştirme (Açıklayıcı Faktör Analizine Dayalı). [Scale Development in Behavioral Sciences (Based on Explanatory Factor Analysis).] *Turkish Journal of Family Medicine and Primary Care*, *11*(2), 108-126.

GENİŞ ÖZET

Tutumlar, davranışların oluşumunda önemli bir rol oynayan psikolojik yönelişlerdir. Tutum, bir nesneye, kişiye veya davranışa karşı bir duygusal bir tepki olarak tanımlanır. İnsanların nesnelere veya durumlara karşı tutumları olumlu veya olumsuz olabilir.

Bu öğretmenlerin tutumlarının öğrenciler üzerindeki etkileri çok önemlidir. Öğrencilerin okula ve derslere karşı tutumlarında öğretmenlerin düşünceleri, tutumları, duygusal tepkileri ve çeşitli alışkanlıkları etkili olmaktadır. Öğretmenler, bir yandan öğrencileri bilgi, beceri ve tutumlarıyla eğitme görevini yerine getirirken; Öte yandan davranışları ile öğrencilerin davranışlarını etkilemektedirler. Öğretmenlerin samimi, anlayışlı ve sabırlı olmaları öğrencileri olumlu düşünmeye teşvik etmekte, olumsuz davranışları ise öğrenciler üzerinde olumsuz etki yapmaktadır. Çoğu zaman öğrenciler anlattıkları konudan ziyade öğretmenin konuya yaklaşımına dikkat ederler ve olayları yorumlama biçimlerinden etkilenirler. Bu nedenle öğretmen tutumlarının dikkate alınmadığı sınıflarda, öğretim etkinliklerinin gerçekleştirilmesinde önemli güçlüklerle karşılaşma olasılığı vardır. Öğretmenlerin tutumları, öğrenci başarısını etkileyen öğretim davranışı ile bağlantılıdır.

Öğretmenler tarafından kullanılan etkili tutum ve eylemler, nihayetinde öğrencilerinin yaşamlarında olumlu bir fark yaratabilir. Tutumların öğretmen uygulamaları ve davranışları üzerinde derin bir etkisi olduğu bilinmektedir. Öğrencilerin öğrenmesi ve başarısıyla öğretmen tutumları bağlantılıdır. Öğretmenlerin öğrencilerin öğrenme yeteneklerine ilişkin tutum ve inançları başarıyı etkilemektedir. Öğretmenlerin tutumları öğretme davranışlarıyla ilgilidir. Öğretmenlerin öğrencilere yönelik tutumları olumlu olduğunda öğrenciler öğrenme sürecine daha etkili bir şekilde katılırlar ve sonuç olarak daha kalıcı öğrenirler. Buna karşılık öğretmenlerin öğrencilere yönelik yüksek beklenti ve olumsuz tutumları öğrencilerin başarısına olumsuz etki eder. Öğretmenlerin öğrencilere yönelik tutumları ile öğrencilerin başarıları arasında bir ilişki vardır Bu durum yapılan bazı çalışmalarda ortaya konmuştur. Bu bakımdan öğretmenlerin öğrencilere yönelik tutumlarının belirlenmesi oldukça önemlidir.

Amaç

Bu araştırma, "Öğretmenlerin Öğrencilere Yönelik Tutumları Ölçeğinin (ÖÖYTÖ) geçerlik ve güvenirlik analizlerini yaparak bir ölçek geliştirmeyi amaçlamaktadır.

Yöntem

Öğretmenlerin öğrencilere yönelik tutumları belirlemek için ölçek geliştirmeyi amaçlayan bu araştırmada nicel araştırma modellerinden biri olan tarama modeli kullanılmıştır.

Bu araştırmanın örneklemini Millî Eğitim Bakanlığına bağlı devlet ve özel okullarda görev yapan ve kolayda örnekleme yöntemiyle ulaşılan 325 öğretmen oluşturmuştur. Ölçeğin yapı geçerliğini belirlemek amacıyla yapılmış olan Açımlayıcı Faktör Analizi 325 öğretmenin katılımı ile gerçekleştirilmiştir.

Araştırmada öncelikle ÖÖYTÖ 'nin geliştirilebilmesi için öncelikle ilgili literatür taraması yapılmış, ardından ölçek için taslak madde yazım sürecine geçilmiştir. Öğretmenlerin öğrencilere yönelik tutum maddeleri, öğrenciler için çaba gösterme, öğrenciye inanma ve öğretim değerleri çerçevesinde yazılmıştır. Ölçek başlangıçta 44 madde olarak yazılmış, sekiz uzmandan alınan görüşler doğrultusunda denemelik ölçek formu 53 likert tipi maddeden oluşmuştur. Ölçekler üzerinde faktör analizi, güvenirlik analizi ve diğer istatistiksel analizler yapılmadan önce ölçeğin kapsam geçerliğinin belirlenmesi gerekmektedir. Bu bağlamda, taslak ölçek formunda yer alan her bir maddenin ölçmesi amaçlanan özelliği ölçüp ölçmeyeceğini belirlemek için kapsam geçerlik analizleri yapılmıştır Ölçeğin yapısında tutum öğeleri bilişsel, duyuşsal ve davranışsal boyutları içeren maddelerden oluşmuştur.

Sonuç ve Tartışma

Ölçek iki alt boyut altında gruplandırılmış 19 maddeden oluşmuştur. Ölçeğin birinci alt boyutu 11 maddeden oluşmaktadır (1, 8, 13, 14, 15, 28, 32, 42, 51, 52, 53) ve toplam varyansın %40.2'ini açıklamaktadır. Bu boyuttaki maddelerin faktör yükleri .521 ile .755 katsayıları arasında değişmektedir. İkinci alt boyut ise 8 maddeden oluşmaktadır (22, 23, 24, 31, 37, 40, 44, 50) ve toplam varyansın %7.8'ni açıklamaktadır. Bu faktörde yer alan maddelerin faktör yükleri .470 ile .806 arasında değişmektedir. Ölçeğin tamamında yer alan maddelerin toplam varyanslarının .470 ile .806 arasında değiştiği görülmektedir.

Maddelerin birbirleri ile uyumlu olup olmadığını belirlemek için güvenirlik analizi yapılmıştır. Tablo incelendiğinde birinci alt boyutun (Öğrenciler için çaba gösterme) güvenirlik katsayısı α = 0.871 olarak hesaplanmıştır. İkinci alt boyutun (Öğrencileri takdir etmek) güvenirlik katsayısı α = 0.853 olarak hesaplanmıştır. Ölçeğin tamamının güvenirlik katsayısı α=0.912 olarak belirlenmiştir. Ölçek güvenirlik katsayısı ile ilgili araştırmacılar arasında farklı ölçütler ileri sürmüştür. Lui (2003) ölçeğin güvenirliği için 0.70'in üzerindeki bir değerin kabul edilebilir olduğunu belirtmiştir. Özdamar'a (2013) göre de 0.80 ile 0.90 ($0.80 \leq \propto \leq 1.00$) arasındaki güvenirlik katsayısı değeri yüksek güvenirlik düzeyleri olarak kabul edilmektedir. Bu kriterlere göre "Öğretmenlerin öğrencilere yönelik tutumları" ölçeğinin güvenirlik katsayısı α = 0.912 olduğundan oldukça yüksektir.

Sonuç olarak, güvenirlik ve geçerlik testleri Öğretmenlerin Öğrencilere Yönelik Tutumları Ölçeğinin hem geçerli hem de ölçüm güvenirliği olduğunu desteklemektedir.

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Conflict of Interest

The researchers do not have any personal or financial conflicts of interest with other individuals or institutions related to the research.

Ethics Committee Declaration

This study was conducted with the approval of Gazi University Ethics Commission dated 05.09.2023 and numbered E-77082166-604.01.02-743837.