



Öğretmen Öz-Yeterlik Algısı Ölçeğinin Meta-Analizle Güvenirlik Genellemesi Reliability Generalization Meta Analysis of the Teachers' Sense of Efficacy Scale

Harun DİLEK¹

Selahattin GELBAL²

Makale Türü / Article Type: Araştırma makalesi / Research manuscript

Başvuru Tarihi / Application Date: 02.05.2023

Kabul Tarihi / Accepted Date: 05.06.2023

Atf İçin / To Cite This Article: Dilek, H. & Gelbal, S. (2023). Reliability generalization meta analysis of the teachers' sense of efficacy scale. *Recep Tayyip Erdoğan Üniversitesi Eğitim Fakültesi Dergisi (REFAD)*, 3(1), 1-27.

ÖZ: Bu çalışmanın amacı Öğretmen Özyeterlik Ölçeği'nin toplam puanı ve üç alt boyutunun genel Cronbach alfa değerini kestirmektir. Bu amaçla ölçeğin toplam puanı için 187 farklı çalışmadan 189 Cronbach alfa değeri, alt boyutlar için 156 farklı çalışmadan 157 Cronbach alfa değeri ile çalışma yürütülmüştür. Bonett dönüşümü kullanılarak Rastgele etkiler modeli ile analizler yürütülmüştür. Ölçeğin toplam puanının ortalama Cronbach alfa değeri .931, öğrenci katılımına yönelik alt boyutu için .854, öğretim stratejilerine yönelik alt boyutu için .871 ve sınıf yönetime yönelik alt boyutu için .869 olarak elde edilmiştir. Cronbach alfa değerlerindeki değişkenliği keşfetmek için üç kategorik değişken ile moderatör değişken analizleri yürütülmüştür ve sonuçlar raporlanmıştır. Sonuç olarak ölçeğin toplam puanının ve alt boyutlarının Cronbach alfa değerlerinin yeterli düzeyde olduğu bulunmuştur ve araştırmacılara yönelik önerilerde bulunulmuştur.

Anahtar sözcükler: Güvenirlik genelleme, meta-analiz, öz-yeterlik

ABSTRACT: The objective of this study was to estimate the overall Cronbach's alpha value of the total score and three subscales of the Teacher Self-Efficacy Scale. For this purpose, the study was conducted with 189 Cronbach's alpha values from 187 different studies for the total score of the scale and 157 Cronbach's alpha values from 156 different studies for the subscales. The analyses were conducted with the Random Effect model using Bonett transformation. The average Cronbach's alpha value for the total score of the scale was .931, .854 for the efficacy for student engagement subscale, .871 for the efficacy for instructional strategies subscale and .869 for the efficacy for classroom management subscale. In order to explore the variability in Cronbach's alpha values, moderator variable analyses were conducted with three categorical variables and the results were reported. As a result, Cronbach's alpha values of the total score and subscales of the scale were found to be at an adequate level and recommendations were made for researchers.

Keywords: Reliability generalization, Meta-analysis, Self-efficacy

¹ Öğretmen / Milli Eğitim Bakanlığı, harundilk@gmail.com, ORCID 0000-0001-5671-6858, (Başlıca yazar)

² Prof.Dr. Hacettepe Üniversitesi, Eğitim Fakültesi, sgelbal@gmail.com, ORCID 0000-0001-5181-7262

1. INTRODUCTION

Self-efficacy is the confidence that an individual has in himself/herself to realize his/her goal and his/her perception that he/she can do what needs to be done to realize this goal. The degree of this perception will affect the effort to be made by the individual, and it is important to have a high self-efficacy perception for the individual to exhibit the most efficient performance (Bandura, 1978: 141). Teachers are expected to realize certain goals in education and training processes. At this point, self-efficacy perception will affect teacher performance. Teachers' beliefs that they can meet the educational needs of students are defined as teacher self-efficacy (Pajares, 2005: 361). Teachers' self-efficacy perceptions will determine their perspectives on the difficulties they face in the educational process and teachers with high self-efficacy will strive to solve these difficulties. Teachers with high self-efficacy will be aware that they play a key role in determining students' motivation and learning (Tschanen Moran & Hoy, 2001: 784).

Tschanen Moran and Hoy (2001) developed the Teacher Self-Efficacy Scale (TSES) in 9-point Likert type, to determine teachers' self-efficacy perceptions. . The scale was developed in two different forms as long and short form. The long form of the scale consists of 24 items and the short form consists of 12 items, and this study was conducted on the long form. The scale consists of student engagement (SE), instructional strategies (IS) and classroom management (CM) subscales and has 24 items in total. Each subscale consists of 8 items. Cronbach's alpha values were reported as .94 for the whole scale, .87 for the SE subscale, .91 for the IS subscale and .90 for the CM subscale. The scale explains 58.47% of the variance in total. In the SE subscale, the teacher's self-efficacy belief in enabling students to participate in the lesson is measured. The IS subscale measures the teacher's self-efficacy beliefs in the processes from pre-lesson preparation to lesson evaluation. In the CM subscale, self-efficacy beliefs for controlling student behaviors in the desired direction in order to create a better lesson environment are measured. The TSES was adapted into Turkish by Çapa et al. (2005). In the process of adaptation into Turkish, the study group consisted of 628 pre-service teachers (439 female and 189 male) from six different universities. The pre-service teachers were senior students studying in the departments of mathematics education (14%), elementary science education (21%), early childhood education (15%) and classroom teaching (51%). Confirmatory factor analysis revealed that the RMSEA value was .065, TLI and CFI values were .99. The adapted scale consists of 24 items and 3 subscales on a 9-point Likert scale as in the original. In the scale, 1- insufficient 9- very sufficient, but not all categories were labeled. The labeling is as follows: 1- insufficient, 3- slightly sufficient, 5- somewhat sufficient, 7- quite sufficient, 9- very sufficient. The lowest score that can be obtained from the scale is 24 and the highest score is 216. A high score on the scale means that self-efficacy is high. The reported Cronbach's alpha values were .93 for the whole scale, .82 for the SE subscale, .86 for the IS subscale and .84 for the CM subscale.

Reliability, defined as the repeatability of measurement results (Crocker & Algina, 2008: 105), is a key point in the interpretation of measurement results in psychology and education. Cronbach's alpha internal consistency coefficient is a method frequently used in studies based on Classical Test Theory. Reliability may vary from sample to sample, so it should be re-estimated and reported in each study (Thompson & Vacha-Haase, 2000:176). In Classical Test Theory, reliability is associated with error; the lower the error, the higher the reliability. With reliability generalization (RG), reliability estimates of a measurement tool obtained from different studies are combined to obtain an average reliability coefficient (Vacha-Haase, 1998: 16). With RG, which is an application of meta-analysis (Glass, 1976: 3), which is the statistical combination of findings obtained from single studies, reliability coefficients obtained from different studies are combined to obtain an average reliability coefficient. This method is the most appropriate method for explaining the fluctuations and variance in the reliability value (Sánchez-Meca et al., 2013: 403).

This study aims to generalize the reliability of the scores obtained from the TSES . This scale has been one of the most widely used scales in the studies on teacher self-efficacy in Türkiye since 2005, which is why it was chosen. Although many different studies have been conducted with the TSES, there

has not been a study focusing on reliability generalization. Therefore, this study will seek answers to the following questions:

- 1) What is the average reliability level for the total score and subscales of the TSES?
- 2) Do the reliability levels differ according to the moderator variables determined in the total score and subscales of the TSES?

2. METHOD

2.1. Research Design

Meta-analysis provides a statistical combination of findings from independent individual studies (Glass, 1976:3). Reliability generalization is a statistical method used to obtain an average estimate of reported reliability coefficients and to identify sources of variation (Vacha-Haase, 1998). In this reliability generalization study, individual studies were included by applying PRISMA (Moher et al., 2009) steps.

2.2. Inclusion Criteria

The studies to be included in the meta-analysis regarding the reliability of the general and subscales of the Teacher Self-Efficacy Scale (Çapa et al., 2005) were scanned in Google Scholar, National Thesis Center, Ulakbilim databases without any year criteria and 7690 studies were reached. The study was searched with the Turkish keywords “Öğretmen Öz Yeterliği”, “Öğretmen Öz Yeterliği Ölçümü” “Aday Öğretmen Öz Yeterliği”, “Aday Öğretmen Öz Yeterliği Ölçümü” and the English equivalents of these keywords "Teacher Self-Efficacy", "Teacher Self-Efficacy Measurement", "Pre-Service Teacher Self-Efficacy", "Pre-Service Teacher Self-Efficacy Measurement" referring to Çapa et al. (2005) and 779 studies were reached. Studies were analyzed according to the inclusion criteria, these criteria were: i) Cronbach's Alpha coefficient was reported, ii) the scale was used in the studies with the number of items and all scales adapted into Turkish, and iii) the language of the study was Turkish or English. In the last case, there are 187 studies that meet these criteria for the whole scale and the reported Cronbach's Alpha is 189. For the three subscales, there are 156 studies that meet the criteria and the reported Cronbach's Alpha is 157. The reason for the difference between the number of studies and the reported Cronbach's alpha value is that some studies report more than one Cronbach's alpha coefficient with more than one sample.

2.3. Coding of the Data

Before coding the studies, it was decided what to code. The coding process was carried out by determining possible moderator variables. Data were coded according to internal consistency coefficient, publication type, application group, sample size and Likert type. The data were then transferred to the Comprehensive Meta-Analysis (CMA) program.

2.4. Calculation of Effect Size and Other Statistical Procedures

In this study, it is aimed to obtain the average reliability coefficient of the TSES. For this purpose, Cronbach's alpha coefficient, which is the internal consistency coefficient reported in all studies, was used. In reliability generalization studies, analyses are carried out by transforming Cronbach's alpha value because the value exhibits a skewed distribution as it moves away from 0 (Field, 2001: 168). In this study, Bonett transformation, which normalizes the skewed Cronbach's alpha values and fixes the variance values, was used (Bonett, 2002). Then, it was decided which model to choose for the calculation of the effect size. These models are fixed effect model and random effect model. In the fixed effects model, it is assumed that all factors affecting the effect size are the same in all individual studies, but it is known that the factors affecting the effect size in a field such as education are very different. Therefore, the random effects model should be used (Borenstein et al., 2009: 63-70). Random effects model is used in this study. For the heterogeneity test, Cochran's Q statistic and the I^2 statistic, which can be considered as a continuation of this statistic, are used. A Q statistic that is found to be significant and an I^2 statistic above 75% (Higgins et al., 2003: 559) is evidence of heterogeneity. Afterwards, moderator variable analyses were conducted using the mixed effect model. Q-between (QB)

statistic was used to test the statistical significance of moderator variables. Analyses were conducted with Comprehensive Meta-Analysis Software.

2.5. Publication Bias

Publication bias affects the results of meta-analysis. Possible reasons for publication bias may be setting criteria according to a specific result, inadequate literature review, and insufficient scientific evidence of the included studies (Dinçer, 2021: 22-23). Determining publication bias will contribute to the reliability of the results. For this purpose, funnel plot (Borenstein et al., 2009: 283), Rosenthal's fail-safe N method (Rosenthal, 1979: 639-640), Begg and Mazumdar rank correlation method (Begg and Mazumdar, 1994) and Egger's regression method test (Card, 2012: 67) were used to determine whether there is publication bias.

3. FINDINGS

3.1. Publication Bias Analysis

In this study, we analyzed publication bias using funnel plots, Rosenthal's (1979) fail-safe N value, Begg and Mazumdar's (1994) rank correlations, and Egger's (Egger et al., 1997) linear regression method. An asymmetric shape observed in the funnel plot indicates a possible publication bias (Borenstein et al., 2009). Figure 1 shows the distribution of the transformed Cronbach's alpha values of the studies in the funnel plot for the whole scale and its subscales.

The results of Rosenthal's fail-safe N method analysis of publication bias are given in Table 1.

Table 1: Rosentha's fail-safe N values

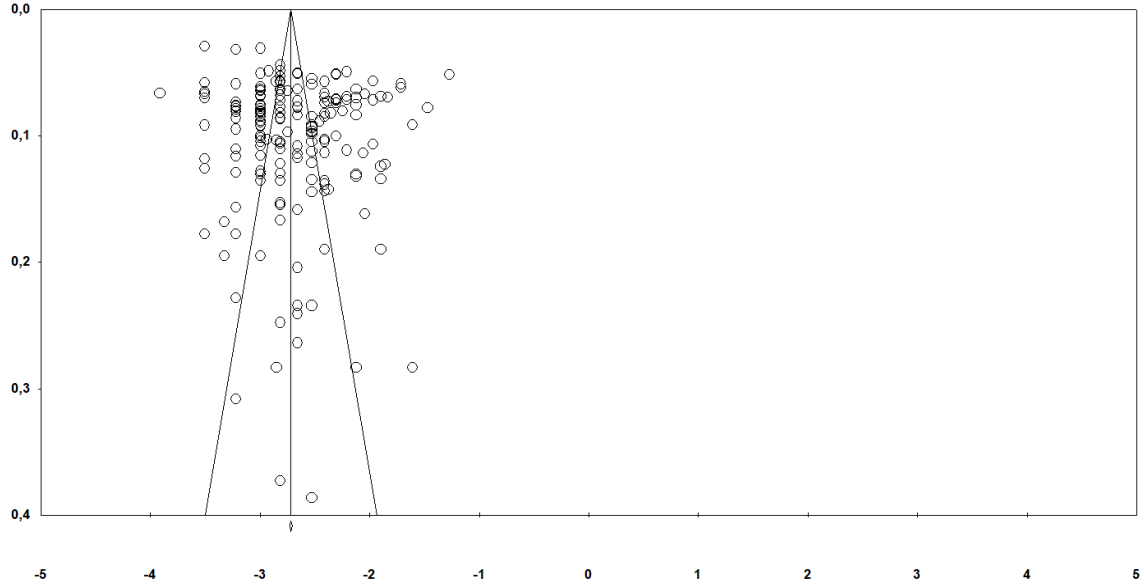
	Rosenthal fail-safe N	5k+10
Whole scale	5307	955
Student engagement (SE)	5365	795
Instructional strategies (IS)	2389	795
Classroom management (CM)	979	795

Table 1 indicates many studies are required for the average fail-safe values to be obtained as a result of this research to be invalid. Rosenthal's fail-safe N value should be greater than 5k+10 (Şen & Yıldırım, 2020: 270). In order for the average effect size value to be statistically insignificant ($p > .05$), 5307 studies in the whole scale, 5365 studies in the SE subscale, 2389 studies in the IS subscale, and 979 studies in the CM subscale are required. It is seen that this size is met in the whole scale and all subscales. This value shows that there is no publication bias.

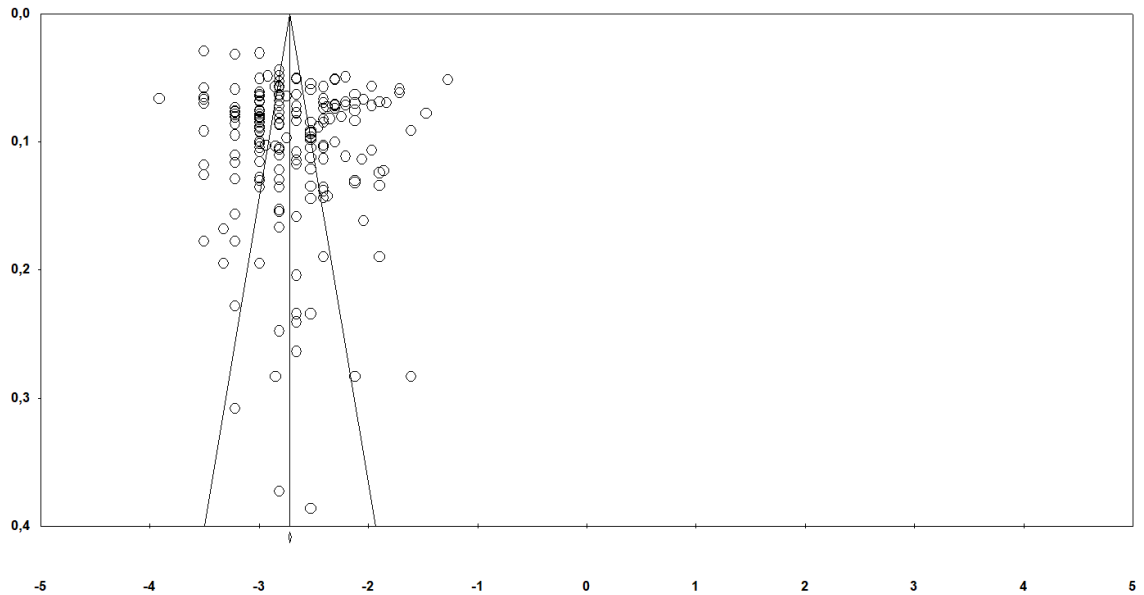
Table 2: Kendall's tau value and Egger's linear regression

	Kendall's tau value	Egger's linear regression
Whole scale	.02, $p > .05$	$t(187)=1.95$, $p > .05$
Student engagement (SE)	.043, $p > .05$	$t(155)=1.09$, $p > .05$
Instructional strategies (IS)	.065, $p > .05$	$t(155)=1.17$, $p > .05$
Classroom management (CM)	.070, $p > .05$	$t(155)=2.04$, $p > .05$

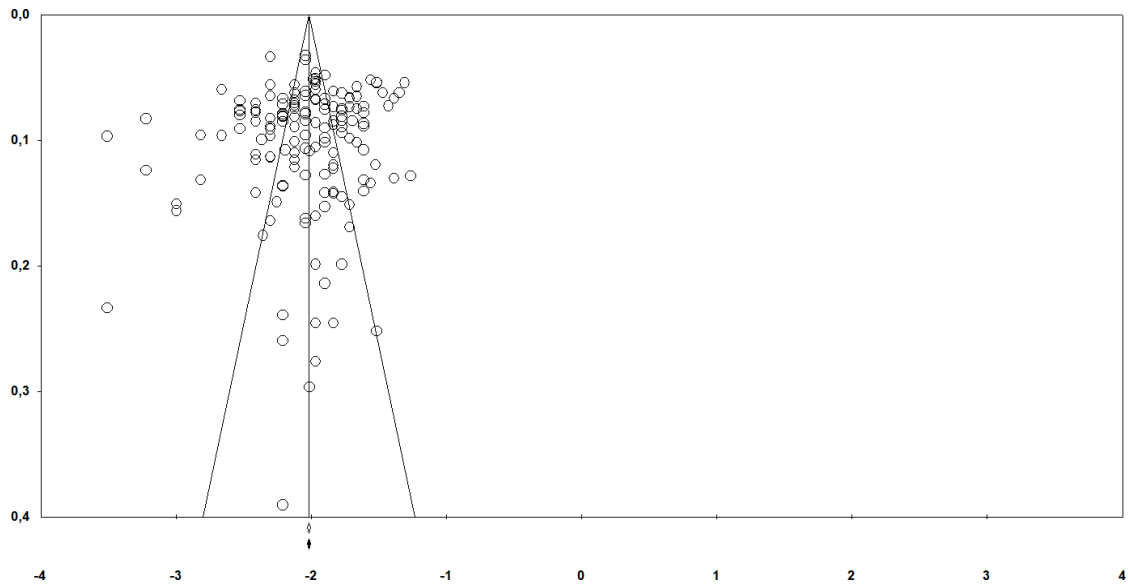
When Table 2 is examined, it is seen that Kendall's tau value is statistically insignificant ($p > .05$) for the whole scale and all subscales. These values indicate that there is no publication bias. Finally, the fact that the p value in Egger's linear regression test is statistically insignificant ($p > .05$) for the whole scale and all subscales shows that there is no publication bias (Card, 2012: 267). These findings show that there is no publication bias.



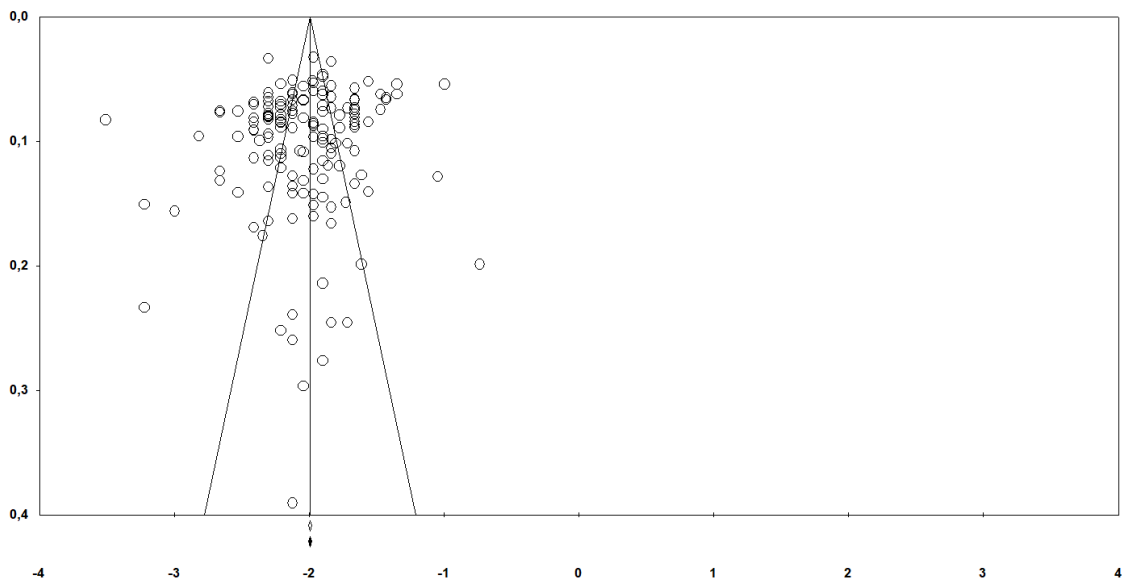
Whole Scale



Student Engagement Subscale



Instructional Strategies Subscale



Classroom Management Subscale

Figure 1: Funnel plots for the whole scale and its subscales

As a result of the publication bias analysis, it was seen that there was no publication bias for the whole scale and its subscales.

3.2. Estimate of Pooled Reliability

The average reliability coefficient calculated for the total score of the scale using the Bonett (2002) transformation method was .931 (95% CI: .927-936), which is significant ($p < .01$). This mean value is close to the initial value of the scale (Çapa et al., 2005). The Q statistic was also significant

($Q_{188} = 7706,415$, $p < .01$) and the I^2 statistic was 97.56. These values indicate that heterogeneity is high. There are 67995 participants in total in the whole scale.

Using Bonett's (2002) transformation method, the average reliability coefficient calculated for the student engagement subscale was .854 (95% CI: .846-.861), which is significant ($p < .01$). This mean value is close to the initial value of the scale (Çapa et al., 2005). The Q statistic was also significant ($Q_{156} = 2438,346$, $p < .01$) and the I^2 statistic was 93.602. These values indicate that heterogeneity is high. There are 61814 participants in total in the SE subscale of the scale.

Using Bonett's (2002) transformation method, the average reliability coefficient calculated for the subscale for instructional strategies was .871 (95% CI: .864-.878), which is significant ($p < .01$). This mean value is close to the initial value of the scale (Çapa et al., 2005). The Q statistic was also significant ($Q_{156} = 3000,395$, $p < .01$) and the I^2 statistic was 94.801. These values indicate that heterogeneity is high. There are 61814 participants in total in the IS subscale of the scale.

Using Bonett's (2002) transformation method, the average reliability coefficient calculated for the subscale for classroom management was .869 (95% CI: .862-.876), which is significant ($p < .01$). This mean value is close to the initial value of the scale (Çapa et al., 2005). The Q statistic was also significant ($Q_{156} = 3147,237$, $p < .01$) and the I^2 statistic was 95.043. These values indicate that heterogeneity is high. There are 61814 participants in total in the CM subscale of the scale.

3.3. Moderator Analysis

As a result of the analyses, moderator analyses were conducted to determine the cause of heterogeneity. The moderator variables determined were three: Likert type (5-category-9-category), application group (pre-service teacher, teacher) and publication type (article, master's thesis, doctoral dissertation). The moderator variable analyses are shown in Table 3.

Table 3: Moderator variable analyses for the total score of the scale

variable	category	k	α	95% CI: lower bound	95% CI: upper bound	Q_B	sd	p
Likert type	5-category	29	.925	.911	.936	1.403	1	.24
	9-category	160	.933	.927	.938			
application group	pre-service	120	.932	.927	.937	.101	1	.75
	teacher							
publication type	teacher	69	.930	.920	.940			
	article	160	.931	.925	.936	1.519	2	.47
	master's thesis	22	.940	.923	.954			
	doctoral dissertation	7	.924	.893	.946			

Table 3 indicates that the heterogeneity of the categorical variables determined for the total score that can be obtained from the scale is not statistically significant.

Table 4: Moderator variable analyses for the subscale on student engagement

variable	category	k	α	95% CI: lower bound	95% CI: upper bound	Q _B	sd	p
Likert type	5-category	21	.872	.819	.936	.274	1	.60
	9-category	136	.855	.847	.862			
application group	pre-service	94	.846	.837	.855	5.050	1	.03
	teacher							
publication type	teacher	63	.864	.920	.851			
	article	129	.852	.844	.859	1.096	2	.58
	master's thesis	21	.866	.889	.838			
	doctoral dissertation	7	.848	.809	.879			

Table 4 indicates that the application group variable is statistically significant for the SE subscale, while the other variables are not significant. This significance is in favor of teachers.

Table 5: Moderator variable analysis for the subscale on instructional strategies

variable	category	k	α	95% CI: lower bound	95% CI: upper bound	Q _B	sd	p
Likert type	5-category	21	.845	.819	.867	6.169	1	.01
	9-category	136	.875	.862	.882			
application group	pre-service	94	.866	.858	.874	1.672	1	.2
	teacher							
publication type	teacher	63	.877	.863	.890			
	article	129	.868	.860	.876	2.075	2	.35
	master's thesis	21	.884	.857	.903			
	doctoral dissertation	7	.879	.858	.897			

When Table 5 is examined, it is seen that the Likert type to which the scale is applied for the IS subscale is statistically significant, while the other variables are not significant. This significance is in favor of 9-category.

Table 6: Moderator variable analysis for the subscale on classroom management

variable	category	k	α	95% CI: lower bound	95% CI: upper bound	Q _B	sd	p
Likert type	5-category	21	.853	.823	.878	1.922	1	.17
	9-category	136	.872	.864	.879			
application group	pre-service teacher	94	.860	.851	.868	7.168	1	.01
	teacher	63	.882	.868	.895			
publication type	article	129	.867	.859	.875	1.198	2	.55
	master's thesis	21	.878	.849	.903			
	doctoral dissertation	7	.878	.852	.900			

When Table 6 is examined, it is seen that the CM subscale is statistically significant according to the application group to which the scale was applied, while the other variables are not significant. This significance is in favor of teachers.

4. DISCUSSION

In the remaining studies, no reliability coefficient was reported, assuming that the measurements obtained from the scale would be reliable. However, reliability is not related to the scale, it may give different values from sample to sample, so it should be reported in every study (Crocker & Algina, 2008: 144). The fact that the reliability coefficient is not reported in the studies undermines the reliability of the results. Researchers are responsible for proving that their findings are reliable, so they should be more careful. The reliability coefficient for the whole scale was estimated as .931, .854 for the subscale on student engagement, .871 for the subscale on instructional strategies, and .863 for the subscale on classroom management. The value reported here is the Cronbach's Alpha value and this value is an acceptable value above .70. Depending on the importance of the decision to be made as a result of the study, higher reliability values may be required, this value is the lower bound (Nunnally & Bernstein, 1994: 265)

Considering the heterogeneity of the whole scale and its subscales, the I^2 value is above 75 for the whole scale and its subscales and is at a sufficient level (Higgins et al., 2003: 559). This shows that the whole scale and its subscales give different results from sample to sample and cannot be generalized. Therefore, moderator variables that may cause heterogeneity were identified and moderator variable analyses were conducted. In this context, three categorical variables were identified, namely: i) Likert type used (5 - 9), application group (pre-service teacher - teacher), publication type (article - master's thesis - doctoral dissertation). Regarding the whole scale, there is no statistical difference between the moderator variables determined for this study. The SE subscale, on the other hand, is statistically significant according to the application group (pre-service teacher-teacher). This significance is in favor of teachers. This may be due to the fact that the target group of the scale during the development phase was teachers. When we look at the IS subscale, it is statistically significant according to the Likert type of the scale (5-category-9-category). This significance is in favor of the 9-category. The reason for this may be that the scale was developed with 9-category in the first development phase and the sensitivity increased with the shrinking of the unit. The CM subscale is statistically significant according to the application group (pre-service teacher-teacher). This significance is in favor of teachers. This may be due to the fact that the target group in the development phase of the scale was teachers.

The reliability of the measurements obtained from the scales used in social science studies is important for the interpretations to be made based on the measurement results. Interpretations made with low reliability values will also have low reliability. As a result of this study, it was seen that the internal consistency coefficient obtained from the whole scale and subscales of the TSES was high.

In this study, the reliability generalization of the Turkish adaptation of the TSES was conducted with the identified moderator variables. Researchers can generalize the reliability with other moderator variables in another study. Meta-regression was not conducted in this study; researchers can conduct meta-regression with the variables they will determine. The study was conducted using Bonett (2002) transformation. Researchers can make comparisons with other transformations.

KAYNAKLAR / REFERENCES

- Bandura, A. (1978). Self-efficacy: Toward a unifying theory of behavioral change. *Adv. Behav. Res. Ther.*, 1,139-161.
- Begg, C. B. & Mazumdar, M. (1994). Operating characteristics of a rank correlation test for publication bias. *Biometrics*, (50), 1088-1101.
- Bonett, D. G. (2002). Sample size requirements for testing and estimating coefficient alpha. *Journal of Educational and Behavioral Statistics*, 27(4), 335-340.
- Borenstein, M., Hedges, L. V., Higgins, J. P. T. & Rothstein, H. R. (2009). *Introduction to meta-analysis*. Wiley.
- Card, N. A. (2012). *Applied meta-analysis for social science research*. The Guilford Press.
- Crocker, L. & Algina, J. (2008). *Introduction to classical and modern test theory*. Cengage Learning.
- Çapa, Y., Çakıroğlu, J. & Sarıkaya, J. (2005). The development and validation of a Turkish version of the teachers' sense of efficacy scale. *Education and Science*, 30(137), 78-81.
- Dinçer, S. (2021). *Eğitim bilimlerinde uygulamalı meta-analiz*. Pegem Akademi.
- Field, A. P. (2001). Meta-analysis of correlation coefficients: A monte carlo comparison of fixed- and random-effects methods. *Psychological Methods*, 6(2), 161-180.
- Glass, G. V. (1976). Primary, secondary, and meta-analysis of research. *Educational Researcher*, 5(10), 3-8.
- Higgins, J. P. T., Thompson, S. G., Deeks, J. J. & Altman, D. G. (2003). Measuring inconsistency in meta-analyses. *Education and Debate*, (327).
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G. & The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta- Analyses: The PRISMA Statement. *PLoS Med* 6(7): e1000097. 10.1371/journal.pmed1000097
- Nunnally, J. C. & Bernstein, I. H. (1994). *Psychometric theory*. McGraw-Hill.
- Pajares, F. (2005). Gender differences in mathematics self-efficacy beliefs. In A. M. Gallagher & J. C. Kaufman (Eds.), *Gender differences in mathematics: An integrative psychological approach*. Cambridge University Press.
- Rosenthal, R. (1979). The "file drawer problem" and tolerance for null results. *Psychological Bulletin*, 86(3), 638-641.
- Sánchez-Meca, J., López-López, J. A. & López-Pina, J. A. (2013). Some recommended statistical analytic practices when reliability generalization studies are conducted. *British Journal of Mathematical and Statistical Psychology*, 66(3), 402-425. 10.1111/j.2044-8317.2012.02057.x
- Thompson, B., & Vacha-Haase, T. (2000). Psychometrics is datametrics: The test is not reliable. *Educational and Psychological Measurement*, 60(2), 174–195. 10.1177/0013164400602002
- Tschanen Moran, M. & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17(7), 783-805. 10.1016/S0742-051X(01)00036-1
- Vacha-Haase, T. (1998). Reliability generalization: Exploring variance in measurement error affecting score reliability across studies. *Educational and Psychological Measurement*, 58(6), 6-20. 10.1177/0013164498058001002

Reliability Generalization References

- Ağaçbacak, P. M. (2019). Pozitif psikoloji bağlamında sınıf öğretmenlerinin psikolojik iyi oluş düzeyleri ile özyeterlik inançları ve örgütsel bağlılık davranışları arasındaki ilişkinin incelenmesi [Examination of the relationships among psychological well-being, self-efficacy beliefs and organizational commitment behaviors of elementary school teachers based on positive psychology] [Master dissertation]. Marmara University, İstanbul.
- Akay, B. (2021). Beden eğitimi ve spor öğretmenlerinin serbest zaman doyumunu ile öz yeterlik inançları arasındaki ilişkinin incelenmesi [Investigation of the relationship between physical education and spor teachers' leisure time satisfaction and self efficacy belief] [Master dissertation]. Bartın University, Bartın.
- Akhan, N. E. & Kaymak, B. (2021). Öğretmenlik uygulamasının öğretme motivasyonu ve öğretmenlik özyeterlilik inançlarına etkisi [The effect of teaching practice on teaching motivation and teaching self-efficiency beliefs]. *The Journal of International Social Research*, 14(76), 563-573.
- Akyol, B. (2016). Teacher self-efficacy perceptions, learning oriented motivation, lifelong learning tendencies of candidate teachers: A modeling study. *Eurasian Journal of Educational Research*, 65, 19-34, 10.14689/ejer.2016.65.02
- Aldan Karademir, Ç. (2013). Öğretmen adaylarının sorgulama ve eleştirel düşünme becerilerinin öğretmen öz yeterlik düzeyine etkisi [The effect of pre-service teachers' inquiry and critical thinking skills on teacher self efficacy levels] [Doctoral dissertation]. Adnan Menderes University, Aydın.
- Alptekin, Yolcu, M., & Kınır, S. (2021). Sınıf öğretmeni adaylarının mesleki kimlik algılarının incelenmesi [Investigation of professional identity perceptions of preservice elementary teachers]. *Journal of Uludag University Faculty of Education*, 34(2), 778-812. 10.19171/uefad.873791
- Arastaman G. (2013). Eğitim ve fen edebiyat fakültesi öğrencilerinin öz-yeterlik inançları ve öğretmenlik mesleğine karşı tutumlarının incelenmesi [Examination of education and arts and sciences faculty students' self-efficacy beliefs and their attitudes toward teaching profession]. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi (KEFAD)*, 14(2), 205-217.
- Arslan, A. (2019). The mediating role of prospective teachers' teaching self-efficacy between self-efficacy sources and attitude towards teaching profession. *International Journal of Educational Methodology*, 5(1), 87-96. 10.12973/ijem.5.1.101
- Arslan, Ş. & Çolakoğlu, Ö. M. (2019). Öğretmen adaylarının öğretmenlik mesleği öz yeterlik inancı kaynaklarının öz yeterlik inançları ve tutumlarını yordama gücü [The predictive power of pre-service teachers' sources of self-efficacy beliefs on teaching self-efficacy beliefs and attitudes]. *Karaelmas Journal of Educational Sciences*, 7, 74-83
- Aslan, M. & Kalkan, H. (2018). Öğretmen özyeterlilik algılarının analizi [Analysis of self-efficacy perceptions of teachers]. *Bingöl Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 8(16), 477-493. 10.29029/busbed.434926
- Ateş, R. C. (2018). Sosyal bilgiler öğretmen adaylarının kaynaştırma eğitime yönelik öz yeterlik inançlarının incelenmesi [Analysis on self-efficacy beliefs of preservice social studies teachers on inclusive education] [Master dissertation]. Akdeniz University, Antalya.
- Atıcı, T., Gökmen, A. & Taflı, T. (2016). Application and evaluation of biology laboratory experiments with computer-based digital experimental tools. *Journal of Human Sciences*, 13(3), 3961-3972. 10.14687/jhs.v13i3.3953.

- Atik, S. (2020). Analysis of the relationships between intrinsic motivation, self-efficacy for teaching, attitude towards the teaching profession and pupil control ideologies. *International Journal of Eurasian Education and Culture*, (10), 1315-1346.
- Atik, S. (2020). Analysis of the relationships between intrinsic motivation, self-efficacy for teaching, attitude towards the teaching profession and pupil control ideologies. *International Journal of Eurasian Education and Culture*, 5(10), 1315-1346.
- Avcı, Y. E., Tösten, R. & Çelik Şahin, Ç. (2020). Examining the relationship between cultural capital and self-efficacy: A mixed design study on teachers. *Athens Journal of Education*, 7(2), 169-192. 10.30958/aje.7-2-3
- Aydın, R., Ömür, Y. E. & Argon, T. (2014). Öğretmen adaylarının öz yeterlik algıları ile akademik alanda arzularını erteleme düzeylerine yönelik görüşleri [Pre-service teachers' perception of self-efficacy and academic delay of gratification]. *Journal of Educational Sciences*, 40, 1-12.
- Aydoğmuş, M. (2021) Investigation of the effect of social entrepreneurship on professional attitude and self-efficacy perception: A research on prospective teachers. *Studies in Higher Education*, 46(7), 1462-1476. 10.1080/03075079.2019.1673719
- Aykac, N. (2017). The effects of creative drama-based instruction on primary school teachers' self-efficacy and conceptions of teaching and learning. *Educational Process: International Journal*, 6(1), 24-36. <http://dx.doi.org/10.22521/edupij.2017.61.2>
- Ayra, M. & Kösterelioglu, İ. (2015). Öğretmenlerin yaşam boyu öğrenme eğilimlerinin mesleki öz yeterlik algıları ile ilişkisi [The relationship between teachers' lifelong learning tendencies and their perceptions of professional self-efficacy]. *NWSA-Education Sciences*, 10(1), 17-28, <http://dx.doi.org/10.12739/NWSA.2015.10.1.1C0630>
- Aytaç, A. (2018). Öğretmenlerin özyeterlik algılarının çeşitli değişkenlere göre incelenmesi [Investigating the self-efficacy perceptions of teachers according to, several variables]. *Academy Journal of Educational Sciences*, 2(1), 29-41. 10.31805/acjes.433205
- Babaoğlu, E. & Korkut, K. (2010). The correlation between level of classroom teachers' self-efficacy beliefs and classroom management ability perceptions. *Inonu University Journal of The Faculty of Education*. 11(1), 1-19.
- Bahar, H. H. & Kağan, M. (2018). Öğretmen adaylarında öz-yeterlik algılarının yordayıcısı olarak beş faktör kişilik özellikleri [Five-factor personality traits as a predictor of self-efficacy perceptions in pre-service teachers]. *Erzincan Üniversitesi Eğitim Fakültesi Dergisi*, 20(3), 676-686. 10.17556/erziefd.406102
- Balcı, Ö., Şanal, F. & Durak Üğüten, S. (2019). An investigation of pre-service English language teaching teachers' self-efficacy beliefs. *International Journal of Modern Education Studies*, 3(1), 41-53.
- Başokçu, T. & Öğretmen, T. (2013). Öğretmen öz-yeterlilik ölçeğinde değişen madde fonksiyonlarının ağırlıklandırılmış cevap modeli ile belirlenmesi [Determine the differential item functioning in teacher self-efficacy by graded response model]. *Ege Eğitim Dergisi*, 2(14): 63-78.
- Baykara Özyaydınlık, K. (2018). Öğretmen adaylarının üstbilişsel öğrenme stratejileri ve öğretmen yeterlik algıları üzerine karşılaştırmalı bir inceleme [A comparative analysis of preservice teachers' metacognitive learning

- strategies and teacher self-efficacy perceptions]. *H. U. Journal of Education*, 33(1), 125-143.10.16986/HUJE.2017028409
- Baykara, K. (2011). Öğretmen adaylarının bilişötesi öğrenme stratejileri ile öğretmen yeterlik algıları üzerine bir çalışma [A study on “teacher efficacy perceptions” and “metacognitive”]. *H. U. Journal of Education*, (40), 80-92
- Berkant, G. H. (2017). Öğretmen adaylarının öğretmen öz-yeterlik algılarının incelenmesi [Investigation of prospective teachers’ perceived teacher self-efficacies]. *Journal of Educational Reflections*, 1(2), 1-17.
- Berkant, G. H., Baysal, S. (2018). An analysis of the changes in pre-service teachers’ perceptions towards teacher self-efficacy and academic self-efficacy and their relations with several variables. *International Online Journal of Educational Sciences*, 10 (4), 164-182.
- Bümen, N. T. (2009). Possible effects of professional development on Turkish teachers’ self-efficacy and classroom practice. *Professional Development in Education*, 35(2), 261-278. 10.1080/13674580802568385
- Bümen, N.T. (2010). The relationship between demographics, self efficacy, and burnout among teachers. *Eurasian Journal of Educational Research*, 40, 17-36.
- Cansoy, R. & Parlar, H. (2018). Examining the relationship between school principals' instructional leadership behaviors, teacher self-efficacy, and collective teacher efficacy. *International Journal of Educational Management*, 32(4), 550-567. 10.1108/IJEM-04-2017-0089
- Cansoy, R. & Türkoğlu, M. E. (2017). Examining the relationship between pre-service teachers’ critical thinking disposition, problem solving skills and teacher self-efficacy. *International Education Studies*, 10(6), 23-35.
- Cansoy, R., Parlar, H. & Kılınç, A. Ç. (2017). Teacher self-efficacy as a predictor of burnout. *International Online Journal of Educational Sciences*, 9 (1), 141 - 155. 10.15345/iojes.2017.01.011
- Cetin-Dindar, A. (2022). Examining in-service and pre-service science teachers’ learning environment perceptions and their sense of efficacy beliefs, *Educational Studies*. 10.1080/03055698.2022.2121603
- Coşkun, M. K. (2010). Din kültürü ve ahlak nilgisi öğretmenlerinin özyeterlik algılarının çeşitli değişkenler açısından incelenmesi [Investigating religious culture & moral knowledge teachers’ self-sufficiency perceptions in terms of various variables]. *Sosyal Bilimler Arastırmaları Dergisi*, 1, 95-109.
- Çelik Ercoşkun, N. & Gündoğdu, K. (2020). Investigation of self-regulation and self-efficacy perceptions of prospective mathematics teachers. *International Journal of Science and Education*, 3(2), 101-118. 10.47477/ubed.781499
- Çelik, İ., Hebebe, M., T. & Şahin, İ. (2016). Çevrimiçi örnek olay kütüphanesi kullanımının teknoloji entegrasyonundaki rolü: TPAB temelinde bir araştırma [Role of use of online case study library in technology integration: A study based on TPACK]. *Gaziantep University Journal of Social Sciences*, 15(3), 739-754.
- Çelik, O, T. & Konan, N. (2021). The relationship between school principals’ empowering leadership with teachers’ self-efficacy and organizational citizenship behaviors. *Education and Science*, 46(206), 241-261. 10.15390/EB.2020.8841
- Çetin, C., & Dede, E. (2018). The effect of perceived stress dimensions on self-efficacy and job burnout of public school’ teachers. *Archives of Business Research*, 6(7), 45-53. 10.14738/abr.67.4838

- Çetin, O. (2017). An investigation of pre-service science teachers' level of efficacy in the undergraduate science teacher education program and pedagogical formation program. *Journal of Education and Practice*, 8(12), 22-32.
- Çocuk, H. E., Yokuş, G. & Tanrıseven, I. (2015). Pedagojik formasyon öğrencilerinin öğretmenliğe ilişkin özyeterlik ve metaforik algıları: Mersin Üniversitesi örneği [Pedagogical formation students' self-efficacy and metaforic perceptions related to teaching profession]. *Mustafa Kemal University Journal of Graduate School of Social Sciences*, 12(32), 373-387.
- Çoşkun, C. O. (2020). Öğretmen adayları pedagojik inançlarının öğretmen öz-yeterlik ve öğretmenlik mesleğine yönelik tutumları açısından incelenmesi [Examination of pre-service teachers' pedagogical beliefs in terms of self-efficacy and attitudes toward profession] [Master dissertation]. Balıkesir University, Balıkesir.
- Dalioglu, S. T. & Adıgüzel, O. C. (2016). Teacher candidates' self-efficacy beliefs and possible selves throughout the teaching practice period in Turkey. *Asia Pacific Educ. Rev.*, 17, 651–661.10.1007/s12564-016-9458-1.
- Dam, H. (2020). Pedagojik formasyon sertifika programı ile ilahiyat fakültesi öğrencilerinin öğretmen özyeterlik inançlarının karşılaştırılması. *Eskişehir Osmangazi Üniversitesi İlahiyat Fakültesi Dergisi*, 7(13), 251-283.
- Demirtaş, H., Cömert, M. & Özer, N. (2011). Öğretmen adaylarının özyeterlik inançları ve öğretmenlik mesleğine ilişkin tutumları [Pre-service teachers' self-efficacy beliefs and attitudes towards profession]. *Education and Science*, 36(159), 96-111.
- Deniz, S. (2013). An investigation of the learning styles and teacher self-efficacy levels of perception of pre-service teachers according to various variables. *International Online Journal of Educational Sciences*, 5(3), 667-684.
- Doğan, Y. B., Akar, H. & Üstüner, M. (2019). Examining the measurement invariance of the teachers' sense of self-efficacy scale in terms of gender. *International Journal of Evaluation and Research in Education (IJERE)*, 8(2), 213-220. 10.11591/ijere.v8i2.18694
- Dolapçı, S. & Yıldız Demirtaş, V. (2016). Öğretmen adaylarının öz-yeterlilik algıları ve kaynaştırma eğitime bakış açıları [Prospective teachers' self-efficacy perceptions and perspectives on inclusive education]. *Bati Anadolu Eğitim Bilimleri Dergisi*, 7(13), 141-160.
- Dolapçıoğlu, S. (2020). Promoting inquiry skills for the improvement of self-efficacy domains in special education pre-service teacher training. *Journal of Teacher Education and Educators*, 9(2), 201-220.
- Ekici, E. & Çetin, A. (2022). Investigating the relationship between teachers' professionalization and self-efficacy. *Malaysian Online Journal of Education Sciences*, 10(2), 47-57.
- Ekici, G. (2008). Sınıf yönetimi dersinin öğretmen adaylarının öğretmen öz-yeterlik algı düzeyine etkisi [The effects of the classroom management lesson on preservice teachers' teacher sense of self-efficacy]. *H. U. Journal of Education*, 35, 98-110.
- Ekici, G., Sert Çıbık, A. & Fettahlıoğlu, P. (2014). Biyoloji öz-yeterlik inancı ile öğretmenlik mesleğine yönelik öz-yeterlik inancının öğretmenlik mesleğine yönelik tutumu yordama gücü [The predictive power of biology self-efficacy belief and teaching profession self-efficacy belief on the attitude towards teaching profession]. *GEFAD / GUJGEF*, 34(1), 23-41.

- Ekinci, H. (2013). Öğretmen adaylarının özyeterlik algıları: Müzik, resim ve beden eğitimi [Comparison of self efficacy perceptions of the teacher candidates: Music, art and physical education]. *International Periodical For the Languages, Literature and History of Turkish or Turkic*, 8(3), 189-196.
- Ekinci, N. (2012). Teacher self-efficacy beliefs of candidate teachers in education faculty and pedagogical formation program. *Educational Process: International Journal*, 1(1-2), 19-28.
- Ekinci, N. (2015). Öğretmen adaylarının öğrenme yaklaşımları ve öğretmen özyeterlik inançları arasındaki ilişki [The relationships between approaches to learning and self-efficacy beliefs of candidate teachers]. *H. U. Journal of Education*, 30(1), 62-76.
- Elmas, R., Turkoglu, M. E., & Aydogdu, B. (2019). Education themed movies as a teaching resource for pre-service science teacher education. *Journal of Theoretical Educational Science*, 12(4), 1324-1339. 10.30831/akukeg.524688
- Er, K. O. (2020). The relationship between teacher self-efficacy beliefs and educational beliefs of pre-service teachers. *Educational Research and Reviews*, 15(1), 8-18.
- Ercan Özyayın, T., Çavaş, P. & Arslan Cansever, B. (2017). Sınıf öğretmeni adaylarının özyeterlik inançlarının değerlendirilmesi [The evaluation of pre-service classroom teachers' self-efficacy beliefs]. *Ege Eğitim Dergisi*, 1(18), 1- 30.
- Erdamar, G., Bangir Alphan, G., Özer, A. & Subaşı, G. (2016). The effect of micro-teaching practices on the concern and self-efficacy of student teachers in school experience. *Current Advances in Education*, 120-135.
- Eroğlu, C. & Unlü, H. (2015). Self-efficacy: Its effects on physical education teacher candidates' attitudes toward the teaching profession. *Educational Sciences: Theory & Practice*, 15(1), 201-212. 10.12738/estp.2015.1.2282
- Eroğlu, C. (2013). Beden eğitimi öğretmen adaylarının özyeterlikleri ve öğretmenlik mesleğine yönelik tutumları [Prospective physical education teachers' self-efficacy and attitudes toward the teaching profession] [Master dissertation]. Aksaray University, Aksaray.
- Eroğlu, G. (2019). Görsel sanatlar öğretmenlerinin iş doyumları ve öz yeterlilik algılarının analizi [Analysis of the works satisfaction and self competency perceptions of visual arts teachers] [Master dissertation]. Trabzon University, Trabzon.
- Fettahlıoğlu, P., Öztürk, N., Yücel Dağ, M., Kartal, T. & Ekici, G. (2012). Evaluating science teachers' views about dimensions of teaching programme according to their levels of self-efficacy beliefs. *Necatibey Faculty of Education Electronic Journal of Science and Mathematics Education*, 6(2), 103-134.
- Gençtürk, A. & Memiş, A. (2010). İlköğretim okulu öğretmenlerinin öz-yeterlik algıları ve iş doyumlarının demografik faktörler açısından incelenmesi [An investigation of primary school teachers' teacher efficacy and job satisfaction in terms of demographic factors]. *Elementary Education Online*, 9(3), 1037-1054.
- Gökdağ Baltaoğlu, M. & Güven, M. (2019). Relationship between self-efficacy, learning strategies, and learning styles of teacher candidates (Anadolu University example). *South African Journal of Education*, 39(2), 1-11.
- Gökmen, A. & Ekici, G. (2018). Biyoloji öğretmen adaylarının öğretmen öz-yeterlik algı düzeyleri ile mesleki kaygıları arasındaki ilişkinin incelenmesi [Investigating the relationship between preservice biology

- teachers' perception level of teacher self-efficacy and their occupational anxiety]. *Anadolu Öğretmen Dergisi*, 2(2), 17-28.
- Gökçer, N. & Bakcak, S. (2018). Ortaokul öğretmenlerinin özyeterlik düzeyleri: Elazığ ili örneği [Secondary school teachers' self-efficacy levels: Elazığ province sample]. *Turkish Journal of Educational Studies*, 5(3), 82-98.
- Göldağ, B. (2020). Investigation of relationship between high school teachers' self- efficacy perceptions and job satisfaction. *Cypriot Journal of Educational Science*. 15(6), 1464-1479. 10.18844/cjes.v15i6.5285
- Güven, B. & Unlu, H. (2017). Does classroom management course affect the teacher self-efficacy belief of physical education candidate teachers? *Researches On Science And Art In 21st Century Turkey*.
- Güllü, B. (2019). Sınıf öğretmenlerinin tükenmişlik düzeylerinin mesleki öz-yeterlik, özerklik ve iş memnuniyeti açısından yordanması [Master dissertation]. Ege University, İzmir.
- Gün, Ö., Acar-Şeşen, B., Akbulut, C., Çetin-Dindar, A. & Molu, Z. (2021). Fen Bilimleri ve İlköğretim Matematik Öğretmen Adaylarının Öz-Yeterlik İnançları ile Öz-Yeterlik Kaynaklarının İncelenmesi [An Investigation of Pre-Service Science and Elementary Mathematics Teachers' Self-Efficacy Beliefs and Their Sources]. *YYU Journal of Education Faculty*, 18(1), 47-69.
- Gündüz, Y. & Kumcağız, H. (2018). Güzel sanatlar eğitimi alan öğretmen adaylarının öz-yeterlik inançları ile öğretmenlik mesleğine karşı tutumlarının incelenmesi [An investigation of self-efficacy beliefs of teacher candidates' of fine arts education and their attitudes toward teaching]. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, 18 (3), 1514-1533.
- Güngör, C. & Gül, İ. (2021). Öğretmen adaylarının öz yeterlik algıları ile mesleki kaygı düzeyleri arasındaki ilişki [The relationship between the self-efficacy perception professional anxiety levels of prospective teachers]. *Iğdır Üniversitesi Sosyal Bilimler Dergisi*, (25), 774-811.
- Güngör, F. & Yaylı, D. (2012). Self-efficacy and anxiety perceptions of pre-service efl teachers. In A. Akbarov & V. Cook (Eds.), *Approaches and Methods in Second and Foreign Language Teaching* (227-236). IBU Publications.
- Gür, G., Çakıroğlu, J. & Çapa Aydın, Y. Investigating predictors of sense of efficacy beliefs of classroom, science, and mathematics teachers. *Education and Science*, 37(166), 68-76.
- Gürbüz, O. & Şad, S. N. (2009). Student teachers' beliefs about teaching and their sense of self-efficacy: A descriptive and comparative analysis. *Inonu University Journal of The Faculty of Education*, 10(3), 201-226.
- Gürçay, D. (2012). Fizik öğretmen adaylarının öğretmen özyeterliliğinin incelenmesi. *H. U. Journal of Education*, (1), 245-254.
- Gürçay, D. (2015). Preservice physics teachers' beliefs regarding their teacher efficacy and classroom management. *Procedia - Social and Behavioral Sciences*, 197, 1101 – 1106
- Gürer, M. D., Gül, D. & Konyaoğlu, C. (2019). Bilişim teknolojileri ve yazılım dersi öğretmen adaylarının mesleki öz-yeterlik algıları ile öz-düzenleme becerileri arasındaki ilişki [Relationship between teacher self-efficacy perceptions and self-regulation skills of pre-service information technology and software lesson teachers]. *Bolu Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, 19(2), 517-529.

- Güvenç, H. (2011). Sınıf öğretmenlerinin özerklik destekleri ve mesleki özyeterlik algıları [Autonomy support and self – efficacy perceptions of primary school teachers]. *Educational Administration: Theory and Practice*, 17(1), 99-116.
- Güvenç., H. (2011). Preservice teacher’s self efficacy and responsibility for student achievement perceptions. *e- Journal of New World Sciences Academy*, 6(2), 1410-1421.
- Han, B. & Elçiçek, Z. (2021). Öğretmen adaylarının olumsuz değerlendirilme korkusu ile özyeterlik algıları arasındaki ilişkinin incelenmesi [Analysis of the relationship between prospective teachers' fear of negative evaluation and self-efficiency perceptions]. *Dumlupınar University Graduate School of Education Journal*, 5(2), 59-73.
- İbili, E. (2017). Internet addiction levels and problem-solving skills in the teaching profession: An investigation. *Acta Didactica Napocensia*, 10(4), 93-107.
- İlkay, N. (2017). Okul öncesi öğretmen adaylarının teknolojik pedagojik alan bilgilerine yönelik özyeterliklerinin incelenmesi (sakarya üniversitesi örneği) [Self-efficacy of perspective pre-school teachers’ in field of technological pedagogy information (Sakarya sample)] [Master dissertation]. Sakarya University, Sakarya.
- Kabaoğlu, K. (2015). Predictors of curriculum implementation level in elementary mathematics education: Mathematics-related beliefs and teacher self-efficacy beliefs [Master dissertation]. Middle East Technical University, Ankara.
- Kahramanoğlu, R. (2018). Analysis of changes in the affective characteristics and communicational skills of prospective teachers: Longitudinal study. *International Journal of Progressive Education*, 14(6), 177-199. 10.29329/ijpe.2018.179.14
- Kanadlı, S. & Akbaş, A. (2018). Fen Bilimleri öğretmen adaylarının mesleki öz yeterlik ve epistemolojik inançlarının incelenmesi [An investigation into the professional self efficacy and epistemological beliefs of pre-service science teachers]. *JRES*, 5(1), 33-49.
- Kanadlı, S. (2017). Prospective teachers’ professional self-efficacy beliefs in terms of their perceived autonomy support and attitudes towards the teaching profession: A mixed methods study. *Educational Science: Theory & Practice*, 17(5), 1847-1871. 10.12738/estp.2017.5.0597
- Kanadlı, S. (2017). Prospective teachers’ professional self-efficacy beliefs in terms of their perceived autonomy support and attitudes towards the teaching profession: A mixed methods study. *Educational Sciences: Theory & Practice*, 17, 1847–1871. <http://dx.doi.org/10.12738/estp.2017.5.0597>
- Kaptanbaş Gürbüz, E. & Sezgin Nartgün, Ş. (2018). Pedagojik formasyon programı öğrencilerinin bilişsel esneklik ve öz yeterlik düzeyleri [Cognitive flexibility and self efficacy levels of pedagogical formation program students]. *The Journal of International Social Research*, 11(55), 628-640. [10.17719/jisr.20185537235](https://doi.org/10.17719/jisr.20185537235)
- Kara, A., Anagün, Ş. S., Boyacı, Ş. D., & Yaşar, S. (2022). Investigating the link between teachers' perceptions of 21st century skills efficiency and students' perceptions of learning experience: Mediating role of teacher’s self-efficacy. *Journal of Pedagogical Research*, 6(4), 50-65. 10.33902/JPR.202215268
- Karaca, N. (2020). In-service English language teachers' perceptions of self-efficacy [Master dissertation]. Bursa Uludağ University, Bursa.
- Karaçöp, A. & İnaltekin, T. (2022). Fen bilimleri öğretmenlerinin mesleki doyum, öz Yeterlilik, öğretim kaygısı ve okul kültürü düzeylerinin çeşitli değişkenlere göre incelenmesi [Examination of science teachers’ levels

- of job satisfaction, self-efficacy, teaching anxiety, and school culture according to various variables]. *Educational Academic Research*, 46, 36-48.
- Karalar, H. & Aslan Altan, B. (2018). New technologies in microteaching: Is it possible for web 2.0 tools to affect prospective teachers' web pedagogical content knowledge and teacher self-efficacy? *International Online Journal of Education and Teaching (IOJET)*, 5(3). 535-551.
- Karalar, H. & Aşşan Altan, B. (2016). Sınıf öğretmeni adaylarının teknolojik pedagojik alan bilgisi yeterliklerin ve öğretmen özyeterliklerinin incelenmesi. *Cumhuriyet International Journal of Education*, 5, 15-30.
- Kartal, B. (2020). Pre-service science and mathematics teachers' teaching efficacy beliefs and attitudes toward teaching: A partial correlation research. *Australian Journal of Teacher Education*, 45(9). 10.14221/ajte.2020v45n9.3
- Kasap, D. (2012). Sınıf öğretmenlerinin öz yeterlik inançları ile mesleklerine yönelik bilgisayar ve internet kullanımları arasındaki ilişkinin incelenmesi [The analysis of the relation between classroom teachers' self-efficacy beliefs and using computer and internet for their professions] [Master dissertation]. Pamukkale University, Denizli.
- Kavrayıcı, C. & Bayrak, C. (2016). Öğretmen adaylarının öz-yeterli kalgıları [Preservice teachers' sense of self efficacy]. *Adıyaman Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, (23), 623-658. <http://dx.doi.org/10.14520/adyusbd.70805>
- Kayış, A. R. (2021). Teacher candidates' multicultural attitude and self-efficacy: The mediating role of intercultural sensitivity. *Çukurova Üniversitesi Eğitim Fakültesi Dergisi*, 50(2), 1241-1262.
- Kelleci, O., Kulaksız, T. & Pala, F. K. (2018). The effect of social network-supported microteaching on teachers self-efficacy and teaching skills. *World Journal on Educational Technology: Current Issues*. 10(2), 115-129.
- Kılıç, H. İ. (2021). Sınıfında yabancı uyruklu öğrenci bulunan ve bulunmayan öğretmenlerin öz yeterlik ve mesleki doyum düzeylerinin karşılaştırılması: Adana ili örneği [Comparison of self-efficacy and professional satisfaction levels of teachers with and foreign student in their class: Adana example] [Master dissertation]. Çağ University, İstanbul.
- Kılınç, A. Ç., Koşar, S., Er, E. & Öğdem, Z. (2017). The relationship between bureaucratic school structures and teacher self-efficacy. *McGill Journal of Education*, (51), 615-634. 10.7202/1037362ar
- Kılınç, A. Ç., Bellibaş, M. Ş. & Bektaş, F. (2021). Antecedents and outcomes of teacher leadership: the role of teacher trust, teacher self-efficacy and instructional practice. *International Journal of Educational Management*, 35(7), 1556-1571. 10.1108/IJEM-04-2021-0148
- Kılınç, A. Ç., Polatcan, M., Atmaca, P. & Koşar, M. (2020). Öğretmen mesleki öğrenmesinin yordayıcıları olarak öğretmen öz yeterliği ve bireysel akademik iyimserlik: Bir yapısal eşitlik modellemesi. *Eğitim ve Bilim*, 1-22. 10.15390/EB.2020.8966
- Kıran, D. & Sungur, S. (2018). Fen bilimleri öğretmenlerinin motivasyon ve iş doyumlarının okul ortamı ile ilişkisi. *Eğitim ve Bilim*, 43(194), 61-80. 10.15390/EB.2018.7409
- Kıran, D. (2021). A quantitative investigation of final year preservice science teachers' sources of self-efficacy beliefs. *International Journal of Contemporary Educational Research*, 8(4), 47-58. 10.33200/ijcer.869003

- Koç Arkan, S. & Bakır, B. (2019). Öğretmenlerin duygusal zekâlarıyla öz yeterlilikleri arasındaki ilişki [Relationship between self efficacy and the emotional intelligence of teacher]. *Akademik Bakış Dergisi*, (75), 157-173.
- Koç, C. (2013). Sınıf öğretmenlerinin öz yeterlik algıları ve yapılandırmacı öğrenme ortamı oluşturma becerilerinin incelenmesi [An investigation into elementary school teachers' self-efficacy beliefs and skills for creating constructivist learning environments]. *H. U. Journal of Education*, (1), 240-255.
- Konan, E. (2008). Kamu ve özel eğitim kurumlarında çalışan ortaöğretim fen bilimleri öğretmenlerinin iş doyumları ve öz yeterlik düzeylerinin çeşitli değişkenler açısından incelenmesi [Master dissertation]. Marmara University, İstanbul.
- Konan,N., Ağroğlu Bakır, A. & Bozanoğlu, B. (2020). Öğretmenlerin örgütsel bağışlama ile öz-yeterlik algıları ilişkisi [The relationship between organizational forgiveness and self-efficacy perceptions of teachers]. *Scientific Educational Studies*, 4(1), 22-44. 10.31798/ses.813118
- Korkmaz, İ. & Mamak, H. (2022). Examination of competence and leadership change of physical education and sport teacher candidates according to the pedagogical formation education model. *Journal of ROL Sports Sciences 2022*, 3(1): 27-39.
- Korkut, K. & Babaoğlu, E. (2012). Primary school teachers' self efficacy. *Int. Journal of Management Economics and Business*, 8(16), 269-282
- Koşar, S. (2015). Trust in school principal and self-efficacy as predictors of teacher professionalism. *Education and Science*, 40(181), 255-270, 10.15390/EB.2015.4562
- Kubilay, F. (2020). Yönetici ile öğretmen işbirliği düzeyinin öğretmen öz-yeterlik algıları üzerine etkisi [The effect of level of cooperation with executive and teachers on teachers ' self efficacy perceptions] [Master dissertation]. Maltepe University, İstanbul.
- Kulaksız, T. (2016). Öğretmenlik staj yönetim sisteminin tasarlanması, geliştirilmesi ve uygulanması [The design, development and implementation of management system for teaching practice courses] [Master dissertation]. Marmara University.
- Kurt T. (2016). Öğretmen liderliğini açıklamaya yönelik bir model: Dağıtımçı liderlik, örgütsel öğrenme ve öğretmenlerin öz yeterlik algısının öğretmen liderliğine etkisi. *Eğitim ve Bilim*,41(183), 1-28. 10.15390/EB.2016.5081
- Kurt, H. (2013). The analyze of teachers' responsibility beliefs for student academic successes and failures (the sample of Turkish biology teachers). *International Online Journal of Educational Sciences*, 5(2), 314-329.
- Kurt, H. Güngör, G. & Ekici, G. (2013). The relationship among teacher efficacy, efficacy regarding teaching, and responsibility for student achievement. *Procedia - Social and Behavioral Sciences*, 116, 802 – 807.
- Kurt, H., Ekici, G., Aksu, Ö., Aktaş, M. & Gökmen, A. (2013). Öğretimde planlama ve değerlendirme dersinin öğretmen adaylarının öğretmen öz-yeterlik algısına etkisinin incelenmesi [An investigation into the effect of educational planning and evaluation course on pre-service teachers' self-efficacy perceptions]. *Milli Eğitim*, (200), 28-48.
- Kurt, T. (2009). Okul müdürlerinin dönüşümcü ve işlemler liderlik stilleri ile öğretmenlerin kolektif yeterliği ve öz yeterliği arasındaki ilişkilerin incelenmesi [Examination of relationships between transformational and

- transactional leadership styles of school principals and collective efficacy and self-efficacy of teachers]. [Doctoral dissertation]. Gazi University, Ankara.
- Kutluca, A. Y. (2018). Öğretmen adaylarının problem çözme becerilerini yordayan değişkenlerin incelenmesi [The investigation of variables predicting prospective teachers' problem solving skills]. *Asian Journal of Instruction*, 6(1), 1-20.
- Kutluca, A. Y. (2018). Öğretmen öz-yeterliğinin motivasyon ve epistemolojik ve pedagojik inanç sistemleri açısından incelenmesi [Examination of teacher self-efficacy in terms of motivation and epistemological and pedagogical belief systems]. *Cumhuriyet International Journal of Education*, 7(2), 175-192. 10.30703/cije.413053
- Mamak, H., Temel, A. & Kangalgil, M. (2020). Examining the self-efficacy of primary school teachers and the problems encountered in physical education and game course. *Educational Policy Analysis and Strategic Research*, 15(3), 336-358. 10.29329/epasr.2020.270.16
- Nakip, C. (2015). Öğretmen adaylarının öğretmenlik mesleğine yönelik öz-yeterlik inançları ile öğretmenlik mesleğine yönelik tutumları arasındaki ilişki [The relation between preservice teachers' confidence in self efficiency and their attitudes toward teaching profession] [Master dissertation]. Abant İzzet Baysal University, Bolu.
- Nazıf Toy, S. & Duru, S. (2016). Sınıf öğretmenlerinin öğretmen öz yeterlikleri ile kaynaştırma eğitimine ilişkin yeterlik inançlarının karşılaştırılması [The comparison of self-efficacy and inclusive education beliefs of primary school teachers]. *Ege Eğitim Dergisi*, 1(17), 146-173.
- Ocakçı, E. & Samancı, O. (2021). Lifelong learning tendency and self-efficacy perception as a predictor of employment hope of preservice teachers. *Kastamonu Education Journal*, 29(3), 600-610. 10.24106/kefdergi.735794
- Orakçı, Ş. & Durnali, M. (2022). The mediating effects of metacognition and creative thinking on the relationship between teachers' autonomy support and teachers' self-efficacy. *Psychol Schs*, 1-20. 10.1002/pits.22770
- Ozonur, Mesut. (2021), Determining preservice teachers' levels of self-efficacy and occupational anxiety. *Education Quarterly Reviews*, 4(1), 607-616. 10.31014/aior.1993.04.02.270
- Öksüz, Y. & Coşkun, K. (2012). Öğretmenlik uygulaması I-II derslerinin zihin engelliler öğretmen adaylarının öz-yeterlilik algılamaları üzerindeki etkisi [Impact of the school experience courses on special educational needs teachers' sense of self-efficacy]. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi (KEFAD)*, 13(2), 131-155.
- Özaydınlık, K., Kabaran, H., Altıntaş, S. & Gökçen Kabaran, G. (2015). Eğitim fakültesi öğrencilerinin yabancılaşma düzeyleri ile öğretmenlik mesleğine yönelik duyarlılık düzeyleri ve yeterlik algıları arasındaki ilişkinin incelenmesi (Muğla Sıtkı Koçman Üniversitesi örneği) [Examining the relation between the faculty of education students' alienation levels and sensation levels towards teaching profession (Muğla Sıtkı Koçman University sample)]. *Kastamonu Eğitim Dergisi*, 24(4), 1673-1690.
- Özdemir, F. & Eker, C. (2021). Investigation of the relationship between playfulness tendencies of pre-school teacher candidates and their professional self-efficacy perceptions. *Karaelmas Journal of Educational Sciences*, 9, 1-20.

- Özdemir, M. & Demircioğlu, E. (2016). Examination of attitudes towards teaching profession and self-efficacy beliefs of pedagogical formation students. *Journal of Higher Education and Science*, 6(3), 326-333.10.5961/jhes.2016.169
- Özkurt, M. F. & Erben Keçici, S. (2017). Sınıf öğretmenlerinin öz yeterlilik algıları ile öğretim teknolojileri ve materyal tasarım becerileri arasındaki ilişki [The relation between the class teachers senses of self efficacy with teaching technologies and talents of materiel designing]. *The Journal of International Education Science*, 4(13), 286-302.
- Özokcu, O. (2021). The variables predicting the attitudes of turkish special education preservice teachers towards the teaching profession. *Inonu University Journal of the Faculty of Education*, 22(01), 01-28. 10.17679/inuefd.775139
- Pamuk, S. (2014). Multilevel analysis of students science achievement in relation to constructivist learning environment perceptions, epistemological beliefs, self-regulation and science teachers characteristics [Doctoral dissertaiton]. Middle East Technical University, Ankara.
- Peker, M. & Erol, R. (2018). Investigation of the teacher self-efficacy beliefs of math teachers. *Malaysian online journal of educational sciences*, 6(4), 1-11.
- Polatcan, M., Arslan, P. & Balci, A. (2021). The mediating effect of teacher self-efficacy regarding the relationship between transformational school leadership and teacher agency. *Educational Studies*. 10.1080/03055698.2021.1894549
- Recepoğlu, S. & İbret, B. Ü. (2021). Analyzing the relationship between social studies teacher candidates' motivation for teaching profession and self-efficacy. *Psycho-Educational Research Reviews*, 10(2), 194-202. 10.52963/PERR_Biruni_V10.N2.13
- Recepoğlu, S. & Ünal, B.İ. (2020). Sosyal bilgiler öğretmen adaylarının mesleki özyeterliliklerine ilişkin algılarının incelenmesi [Examining the perceptions of social studies prospective teachers' sense of efficacy]. *Kastamonu Education Journal*, 28(1), 125-136.10.24106
- Recepoğlu, S., & Recepoğlu, E. (2020). Öğretmen adaylarının özyeterlilik algıları ile öğretmenlik mesleğine yönelik motivasyonları arasındaki ilişki [Relationship between prospective teachers' motivation for teaching profession and prospective teachers' sense of efficacy]. *Hacettepe University Journal of Education*, 35(4), 799-814. 10.16986/HUJE.2019053943
- Sağır, M., Bilen, K. & Ercan, O. (2014). Öğretmenlik uygulaması dersinin öğretmen adaylarının öz yeterlik ve ders anlatımlarına ilişkin algılarına etkisi [Effect of practice teaching courses on teacher candidates' perceptions regarding self efficacy and teaching experiences]. *KSU Journal of Social Science*, 11(2), 97-114.
- Saka, M. & Surmeli, H. (2010). Examination of relationship between preservice science teachers' sense of efficacy and communication skills. *Procedia Social and Behavioral Sciences*, 2, 4722-4727.
- Sakız, H., Ekinci, A. & Sariçam, H. (2020). Teachers' perceptions of their school managers' skills and their own self-efficacy levels. *International Journal of Leadership in Education*, 23(5), 585-603, 10.1080/13603124.2018.1562094
- Sarac, A. & Aslan Tutak, F. (2017). The relationship between teacher efficacy, and students' trigonometry self-efficacy and achievement. *International Journal for Mathematics Teaching and Learning*, 18(1), 66-83.

- Saracaloglu, A. S. & Dinçer, I. B. (2009). A study on correlation between self-efficacy and academic motivation of prospective teachers. *Procedia Social and Behavioral Sciences*, 1, 320-325.
- Saracaloğlu, A. S., Karasakaloğlu, N. & Evin Gencel, İ (2010). Türkçe öğretmenlerinin özyeterlik algılarının çeşitli değişkenlere göre incelenmesi [Analysis on Turkish teachers' self efficacy levels]. *Electronic Journal of Social Sciences*, 9(33), 265-283.
- Saracoğlu, A. S., Yenice, N. & Özden, B. (2013). Fen bilgisi, sosyal bilgiler ve sınıf öğretmeni adaylarının öğretmen öz-yeterlik algılarının ve akademik kontrol odaklarının incelenmesi [An analysis of prospective science, social sciences and primary school teachers' self-efficacy perceptions and focus of academic control]. *Pamukkale University Journal of Education*, (34), 227-250.
- Saracoğlu, S., Certel, Z., Varol, R. & Bahadır, Z. (2012). Beden eğitimi öğretmenlerinin özyeterlik inançları ve denetim odaklarının incelenmesi [The investigation of the physical education teachers' self-efficacy beliefs and focus of control levels]. *Adnan Menderes Üniversitesi Eğitim Fakültesi Eğitim Bilimleri Dergisi*, 3 (2), 54-65.
- Sarı, T., Atik, S. & Çelik, O. T. (2021). Do the personality traits of teacher candidates predict the perception of self-efficacy and alienation from school? *Participatory Educational Research (PER)*, 8(4), 439-453. 10.17275/per.21.99.8.4
- Sarıçam, H. & Sakız, H. (2014). Burnout and teacher self-efficacy among teachers working in special education institutions in Turkey. *Educational Studies*, 40(4), 423–437. 10.1080/03055698.2014.930340
- Savaş, A. C., Bozgeyik, Y. & Eser, İ. (2014). A study on the relationship between teacher self efficacy and burnout. *European Journal of Educational Research*, 3(4), 159-166.
- Savaş, G. (2021). Öğretmenlerin mesleki öğrenmesi ile bazı bireysel ve örgütsel değişkenler arasındaki ilişkinin incelenmesi [An examination of the relationship between teachers' professional learning and some personal and organizational variables] [Doctoral dissertation]. Hacettepe University, Ankara.
- Saygılı, G., Işık, A. D. & Tehnelere, S. (2015). A study on music proficiency levels of teachers serving at different institution. *International Journal of Music and Performing Arts*, 3(1), 69-83. 10.15640/ijmpa.v3n1a7.
- Seçkin, A. & Başbay, M. (2013). Beden eğitimi ve spor öğretmeni adaylarının öğretmenlik mesleğine ilişkin öz-yeterlik inançlarının incelenmesi [Investigate of teacher's self efficacy beliefs of physical education and sport teacher candidate's]. *International Periodical for The Languages, Literature and History of Turkish or Turkic*, 8(8), 253-270.
- Senler, B. & Sungur, S. (2010). Pre-service science teachers' teaching self-efficacy: a case from Turkey. *Procedia Social and Behavioral Sciences*, 9. 10.1016/j.sbspro.2010.12.232
- Sezen Gültekin, G. & Sezgin Nartgün, Ş. (2018). The Examination of the Possible Relationship Between Reality Shock Expectations and Teacher Self Efficacy Levels of the Prospective Teachers Attending Pedagogical Formation Certificate Program. *Journal of Education and Training Studies*, 6(3a), 13-25. 10.11114/jets.v6i3a 3154
- Sıvacı, S. Y. & Gülbahar, B. (2018). Öğretmen adaylarının öz yeterlik algılarıyla mizah tarzları arasındaki ilişkinin incelenmesi [Examining the relationship between prospective teachers' self efficacy perceptions and humour types]. *Uşak Üniversitesi Eğitim Araştırmaları Dergisi*, 4(1), 83- 109.

- Soysal, M. R. (2014). Sınıf öğretmenliği anaibilim dalı öğrencilerinin öğretmenlik mesleği öz yeterlik inançları [Department of primary school teaching students' self efficacy beliefs on teaching profession] [Master dissertation]. Abant İzzet Baysal University, Bolu.
- Subaş, R. (2018). Okul öncesi öğretmen adaylarının öz-denetimleri ve öğretmen özyeterlik inançları arasındaki ilişkinin bazı değişkenlerle incelenmesi [Analysis of the relationship between self-regulation and self efficacy perception of preschool teacher candidates with some other variables] [Master dissertation]. Dumlupınar University, Kütahya.
- Süzer, B. (2019). Fen bilimleri öğretmenlerinin öz-yeterlik inançları ile öz-yeterlik kaynakları arasındaki ilişkinin incelenmesi: Tokat ili örneği [Investigation of the relationship between science teachers' self-efficacy beliefs and sources of their self-efficacy: Tokat sample] [Master dissertation]. Tokat Gaziosmanpaşa University, Tokat.
- Şahin Taşkın, Ç. & Hacıömeroğlu, G. (2010). Examining elementary preservice teachers' self-efficacy beliefs: Combination of quantitative and qualitative methods. *Inonu University Journal of The Faculty of Education*, 11(1), 21-40.
- Şahin, B. (2019). Türkçe öğretmen adayları ve türkçe öğretmenlerinin öz yeterlik algıları [Education programs and department of teaching sense of self efficacy of Turkish teachers and Turkish preservice] [Master dissertation]. Kafkas University, Kars.
- Şahin, C. & Şahin, S. (2017). Öğretmen Adaylarının Öğretmenlik Mesleğine Yönelik Tutumları, Öz-Yeterlik İnançları ve Öğrenciyi Tanıma Düzeyleri. *Türk Eğitim Bilimleri Dergisi*, 15(2), 224-238.
- Şahin, H. (2013). Self-efficacy and attitudes of the teacher candidates who participated in pedagogical formation training. *Educational Research and Reviews*, 8(21), 2083-2092.
- Şahin, H. (2017). Emotional intelligence and self-esteem as predictors of teacher self-efficacy. *Educational Research and Reviews*, 12(22), 1107-1111. 10.5897/ERR2017.3385
- Şeker, S. S. (2020). Müzik öğretmeni adaylarının öğretmenlik mesleğine ilişkin tutumlarını yordayan değişkenler [Variables predicting preservice music teacher's attitudes towards teaching profession]. *Batı Anadolu Eğitim Bilimleri Dergisi*, 11(2), 273-293.
- Şenler, B. & Sungur Vural, S. (2013). Pre-Service Science Teachers' Teaching Self-Efficacy in Relation to Personality Traits and Academic Self-Regulation. *Spanish Journal of Psychology*, 16(12), 1–20.
- Şenler, B. (2011). Pre-servie science teachers' self-efficacy in relation to personality traits and academic self-regulation [Doctoral dissertation]. Middle East Technical University, Ankara.
- Şenol, C. (2020). Öğretmenlerin mesleki profesyonellik algılarının mesleki statü, iş memnuniyeti ve öz yeterlik algıları üzerine etkisi [The effect of the teachers' professionalism on professional status, job satisfaction, and self efficacy] [Master dissertation]. İnönü University, Malatya.
- Tanrıseven, I. (2013). Primary school teachers' realization levels of selfregulated learning practices and sense of efficacy. *Educational Research and Reviews*, 8(7), 297-301.
- Taşgın, A. & Küçükkoğlu, A. (2016). The effect of clinical practice on teacher candidates' self-efficacy perceptions. *Çukurova Üniversitesi Eğitim Fakültesi Dergisi*, 45(2), 265-286.
- Taşgın, A. (2018). Öğretmen adaylarının öğretmenlik mesleğine ilişkin tutumları ile mesleki özyeterlikleri arasındaki ilişkinin incelenmesi. *Eğitim Bilimlerinde Örnek Araştırmalar*, 90-106.

- Tatlı Dalioğlu, S. (2016). Öğretmen adaylarının meslekteki ilk yıllarına yönelik olası benlikleri ile öz-yeterlik inançları ve öğretmenliğe ilişkin tutumları arasındaki ilişki [The relationship between teacher candidates' possible selves regarding their first year of teaching and self-efficacy beliefs and attitudes towards teaching] [Doctoral dissertation]. Anadolu University, Eskişehir.
- Tufan, Z. (2016). Fen bilgisi öğretmenlerinin, öğretmenlik mesleğine yönelik tutumları ile özyeterlilikleri arasındaki ilişki [The relationship of science teachers' attitudes to the teaching professions and their self-efficacy (beliefs)] [Master dissertation]. İstanbul Aydın University, İstanbul.
- Tunkler, V., Ercan, A.N., Beskirlı, M. & Sahin, I. (2016). Relationship between preservice teachers' course attitudes and professional self-efficacy beliefs. *International Journal of Research in Education and Science (IJRES)*, 2(1), 212-222.
- Tümkaya, S. & Altunkaynak, M. (2020). Öğretmen adaylarının aile katılımının etkililiği ve aile katılımına yönelik engelleri ile öğretmenliğe ilişkin tutum ve mesleki öz yeterliklerinin ilişkisi [The effectiveness of pre-service teachers' family participation and their barriers to family participation and the relationship between attitude and professional self-efficacy]. *International Journal of Society Researches*, 15(21), 604-632. 10.26466/opus.657336
- Türkeli, Z., Hazar, Z., Tekkurşun Demir, G. & Namlı, S. (2017). Beden eğitimi ve spor alanında pedagojik formasyon alan öğrencilerin öğretmen özyeterlilikleri ile mesleğe yönelik tutumlarının incelenmesi [Examination of teacher self-efficacy and occupational attitudes of formation students' pedagogical formation in physical education and sports field]. *Inonu University, Journal of Physical Education and Sport Sciences (IJJPESS)*, 4(3), 01- 11.
- Urbay Şen, A. (2015). Eğitim fakültesi mezunu olan öğretmenlerle, eğitim fakültesi mezunu olmayan öğretmenlerin meslek algıları farklılaşmakta mıdır? [Master dissertation]. Yeditepe University, İstanbul.
- Uslu, Ö., & Çakar Özkan, e. (2020). Öğretmenlerin değişim eğilimlerinin yordanmasında öz yeterlik inançlarının ve tükenmişlik düzeylerinin rolü [The role os self-efficacy beliefs and burnout in predicting teachers' change tendencies]. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, (48), 278-300. 10.21764/maeuefd.38745
- Ünlü, İ., Kaşkaya, A. & Kızılkaya, M. F. (2017). Sosyal Bilgiler Öğretmen Adaylarının Öz-Yeterlik İnançlarının Çeşitli Değişkenler Açısından İncelenmesi [Examining the Self-Efficacy Beliefs of Social Studies Teacher Candidates in terms of Some Variables]. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi (KEFAD)*, 18(2), 651-668.
- Üstüner, M. (2017). Personality and attitude towards teaching profession: Mediating role of self efficacy. *Journal of Education and Training Studies*, 5(9), 70-82. 10.11114/jets.v5i9.2536
- Üstüner, M., Demirtaş, H., Cömert, M. & Özer, N. (2009). Ortaöğretim öğretmenlerinin öz-yeterlik algıları [Secondary school teachers' self-efficacy beliefs]. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, 9(17), 1-16.
- Vatansever Bayraktar, H. & Çelik, O. (2021). Investigation of the relationship between teachers' self-efficacy and classroom management skills. *IZU Journal of Education*, 3(6), 98-127. 10.46423/izujed.841318
- Yağcı, U. & Aksoy, V. (2015). Müzik öğretmeni adaylarının akademik öz yeterlilikleriyle öğretmenlik öz yeterlilikleri arasındaki ilişkinin incelenmesi [An analysis of the relationship between academic self-efficacy

- and teaching self-efficacy of pre-service music teachers]. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, (33), 89 – 104.
- Yakar, L. & Yelpeze, İ. (2019). Öğretmen yetiştiren programlara kayıtlı öğrencilerin öğretmenlik mesleğine yönelik tutumları ve öğretmen öz-yeterlik algıları [Attitudes toward teaching profession and teacher self-efficacy beliefs of students in teacher training programs]. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi*, 47, 107-129. 10.9779/pauefd.473678
- Yavuz, D. Kırbaşlar, F. G. (2017). Fen bilgisi öğretmenlerinin öğretmenlik öz-yeterlik düzeylerinin bazı değişkenler açısından incelenmesi [An investigation of teaching self-efficacy levels of science teachers in relation to some variables]. *Hasan Ali Yücel Eğitim Fakültesi Dergisi*, 14(1), 369-387.
- Yavuz, M. (2020). Özel eğitim okullarında çalışan öğretmenlerin mesleki öz-yeterlik düzeylerinin çeşitli değişkenler açısından incelenmesi [Examination of the self-efficacy levels of teachers working at special education schools with regard to certain variables]. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, (55), 1-25.
- Yaylı, D. & Ekizler, F. (2015). Pre- and in-service EFL teachers' sense of efficacy and teaching concerns. *Journal of Language Education and Research*, 1(1), 44-64.
- Yaz, A. H. (2018). Ortaokul öğretmenlerinin özyeterlik algıları ile öğretmen liderliği davranışları arasındaki ilişkinin incelenmesi [Examining the relationship between teacher self efficacy perceptions and teacher leadership behaviours of middle school teachers] [Master dissertation]. Kastamonu University, Kastamonu.
- Yazıcı, K., Ay, E., Uslu, S. & Arık, S. (2021). The relationship between the lifelong learning tendencies and teacher self-efficacy levels of social studies teacher candidates. *Discourse and Communication for Sustainable Education*, 12(1), 67-84. 10.2478/dcse-2021-0006
- Yenen, E. T. & Dursun, F. (2019). İngilizce öğretmenlerinin öğretim süreci öz yeterlikleri ve sınıf ortamına yansımaları [English teachers' self efficacies in teaching process and their reflections on classroom environment]. *Mersin University Journal of the Faculty of Education*, 15(2), 607-627. 10.17860/mersinefd.464253
- Yenen, E. T. (2018). Öğretmenlerin öğretim sürecindeki öz yeterliklerinin ve sınıf ortamına yansımalarının incelenmesi [Aexamination of teachers' self efficacies in teaching process and reflections of these on classroom environment] [Doctoral dissertation]. Tokat Gaziosmanpaşa University, Tokat.
- Yener, E. M. & Demirtaş, H. (2019). Öğretmen adaylarının denetim odağı ve öz yeterlik inançları arasındaki ilişki [The relation between prospective teachers' locus of control and their beliefs of self efficacy]. *Inonu University Journal of the Graduate School of Education*, 6(12), 80-107. 10.29129/inujse.583902
- Yenice, N. & Alpak Tunç, G. (2017). Pedagojik formasyon programına katılan öğretmen adaylarının öğretmenliğe ilişkin tutumları ile mesleki öz yeterliklerinin incelenmesi [an analysis of relation between of pedagogical formaiion program pre-service teachers' attitudes toward the teaching profession and their professional self-efficacy]. *Journal of Kazım Karabekir Education Faculty*, (35), 144 - 155.
- Yenice, N. (2012). Öğretmen adaylarının öz -yeterlik düzeyleri ile problem çözme becerilerinin incelenmesi [Invesigating the self-efficacy and problem solving skills of preservice teachers]. *Electronic Journal of Social Sciences*, 11(39), 36-58.

- Yenice, N., Evren, B. & Özden, B. (2012). Relationship between self-efficacy perceptions of science teacher candidates and academic control focus. *Procedia - Social and Behavioral Sciences*, 46, 4044 – 4049.
- Yeşilyurt, E. (2013). Öğretmen adaylarının öğretmen öz-yeterlik algıları. *Electronic Journal of Social Sciences*, 12(45), 88-104.
- Yeşilyurt, E., Ulaş, A. H. & Akan, D. (2016). Teacher self-efficacy, academic self-efficacy, and computer self-efficacy as predictors of attitude toward applying computer-supported education. *Computers in Human Behavior*, (64), 591-601. 10.1016/j.chb.2016.07.038
- Yezdan Boz & Nihat Boz (2010) The nature of the relationship between teaching concerns and sense of efficacy. *European Journal of Teacher Education*, 33(3), 279-291. 10.1080/02619768.2010.490910
- Yıldız, H. & Akdağ, M. (2017). The effect of metacognitive strategies on prospective teachers' metacognitive awareness and self efficacy belief. *Journal of Education and Training Studies*, 5(12), 30-40. 10.11114/jets.v5i12.2662
- Yılmaz, A., Aslan, E. & Ayan, S. (2020). Spor bilimleri fakültesi öğrencilerinin öğretmen öz-yeterlik inançları ve öğretim tekniklerini seçebilme yeterlikleri [Teachers' self-efficacy beliefs of sport science faculty students and competence to choose teaching techniques]. *Manas Sosyal Araştırmalar Dergisi*, 9(1), 435-448.
- Yılmaz, D. (2010). Investigating the relationship between teachers' sense of efficacy and perceived openness to change at primary and secondary level public schools [Master dissertation]. Middle East Technical University, Ankara.
- Yılmaz, İ. (2013). Pre-service physical education teachers' preference for class management profiles and teacher's self-efficacy. *Educational Research and Reviews*, 8(9), 539-545.
- Yılmaz, M. & Turanlı, N. (2017). Öğretmenlerin kolektif yeterlik algılarının incelenmesi Altındağ ilçesi örneği [Examination on teachers' collective efficacy perception: Altındağ district sample]. *The Journal of International Lingual, Social and Educational Sciences*, 3(2), 151-158.
- Yılmaz, M., Güneş, P. & Türk Katırcıoğlu, H. (2016). Examination of the teacher self-efficacy of pre-service biology and science teachers in terms of different variables. *Journal of Turkish Science Education*, 13(1), 45-54. 10.12973/tused.10156a
- Yıldırım, İ. (2021). A study on the effect of instructors' communication skills on the professional attitudes and self-efficacy of student teachers. *Journal of Education for Teaching*, 47(4), 605-620. 10.1080/02607476.2021.1902237
- Yurtseven, T. & Yaylı, D. (2019). Hizmet öncesi türkçe öğretmenlerinin öğretmeye yönelik endişeleri ve özyeterlik inançları [Teaching concerns and self-efficacy beliefs of pre-service Turkish teachers]. *Journal of Language Education and Research*, 5(1), 47-67.
- Yüksel, İ. (2014). Investigating the impact of classroom management course on self efficacy levels: An experimental study on pre-service teachers. *Education and Science*, 39(171), 259-269.