

Classroom Management Efficacy, Attitudes toward Teaching Profession, and Academic Performance: A Path Analysis*

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Abstract. This study aimed to investigate preservice teachers' classroom management efficacy beliefs with respect to their attitudes toward the teaching profession and academic performance. Accordingly, a model was hypothesized and tested through path analysis. The participants were preservice teachers (N= 483) at a state university in Turkey, and data came from three sources: a scale measuring attitudes toward the teaching profession, a scale for investigating classroom management efficacy beliefs, and academic achievement, namely self-reported GPA scores. Findings indicated a weak but positive relationship between preservice teachers' classroom management competency levels and academic achievement. There was a direct positive relationship between the levels of classroom management competencies and academic achievement. Moreover, findings indicated a moderate positive relationship between attitudes toward teaching and classroom management competencies. Findings also showed that attitudes toward teaching affected classroom management competencies through academic achievement indirectly and positively. In this context, the results were discussed by implications and future directions for research.

Keywords: Academic performance, classroom management efficacy beliefs, path analysis, professional attitude.

* The ethics committee approval for this study was obtained from the Ethics Committee of the Rectorate of Sakarya University, dated 13/01/2021 and numbered 30/45. One part of this study was presented as an oral presentation at the 27th International Conference on Educational Sciences, on 18-22 April 2018 in Antalya, Turkey.

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1. INTRODUCTION

It has been indicated in the literature that several factors play an essential role in determining students' success at school. However, teachers' self-efficacy, their classroom management self-efficacy beliefs, in particular, could have a more considerable impact among others as they are inextricably interwoven with classroom instruction and have implications for teaching quality (Evertson & Weinstein, 2011; Holzberger, Philipp, & Kunter, 2013; Lazarides, Watt, & Richardson, 2020). In the most general sense, classroom management comprises actions taken for creating and sustaining a positive classroom environment suitable for achieving success in teaching, including teacher actions such as organizing and preparing the classroom environment, setting rules and procedures, planning classroom activities and ensuring student participation in these activities, managing communication in the classroom, and supervising student behaviors (Brophy, 2011; Evertson & Weinstein, 2011; Martin & Sass, 2010). As Evertson and Weinstein (2011) suggest, it consists of "the actions teachers take to create an environment that supports and facilitates both academic and social-emotional learning" (p. 4). Accordingly, teachers who are good classroom managers can establish and sustain a conducive environment for students to learn and nurture their social and academic development in the light of instructional goals and students' characteristics (Evertson & Weinstein, 2011). Therefore, classroom management is considered among the critical competencies that teachers should have. It is regarded as one of the most critical performance-shaping factors in a productive climate for teaching/learning, directly promoting student achievement (Erden, 2001).

However, classroom management competencies or self-efficacy are often considered one of the most challenging issues and are often a source of concern, particularly for beginning or preservice teachers (Davis, 2018; Evertson & Weinstein, 2011; Jones, 2011). As Jones (2011) states, most are "unprepared for the realities of working with the behavior demands presented by their students" (p. 887), and classroom management efficacy is, therefore, amongst novice and preservice teachers' "greatest fear"s (Davis, 2018, p. 2). When they start teaching, their lack of experience in classroom management or management incompetencies might make managing their classes even more challenging in their initial years of the teaching profession. And this might subsequently result in burnout, job dissatisfaction, and even teachers leaving the profession (Davis, 2018; Evertson & Weinstein, 2011). For this reason, it is rather important to address classroom management self-efficacy at the very early stages of preservice teacher education years and help them feel more efficacious before they start the teaching profession. Of equal importance is to understand its relationship with other potential factors affecting classroom instructional procedures.

Amongst those potential factors, preservice teachers' attitudes toward the profession might be considered an important one. As known, preservice teachers' positive consideration of the teaching profession has a positive impact on their future vocational experiences (Senemoğlu & Özçelik, 1989). Therefore, having positive or negative attitudes toward the profession plays a crucial role in directing their professional

behaviors (Temizkan, 2008) and future instructional practices, including their classroom management competencies. For instance, Bhargava and Pathy (2014) indicate that if teachers have positive attitudes toward the profession, they can develop a sense of duty and professional competence, which would contribute to the quality of education. They also add that the attitude of teachers carries the imprint of their competencies, and changing times have added a new dimension that requires specific competencies and correct attitudes toward the teaching profession.

Therefore, classroom management efficacy and attitudes toward the teaching profession are probably interrelated. Similarly, teachers' self-perceived competencies or sense of self-efficacy might also have a considerable influence on their attitudes given that attitudes of preservice teachers are generally influenced by several variables like educational-instructional programs, professional expectations, and personal characteristics (Şenel, Demir, Sertelin, Kılıçaslan, & Köksal, 2004). These self-perceived competencies might include professional competencies such as classroom management or academic achievement. As Bayraktar (2011) puts forward, preservice teachers' positive attitudes toward the teaching profession might increase their academic success, thereby helping them become more qualified teachers. For this reason, one can think that attitudes toward the teaching profession might also be related to academic performance.

This study investigates the potential relationship among the preservice teachers' classroom management efficacy beliefs, attitudes toward the teaching profession, and academic performances to address the above-discussed issues.

Significance, Aim, and Research Questions

Initially, in several studies, in-service teachers reported that the education they received in classroom management courses was insufficient (e.g., Celep, 2002; Kaliska, 2002). However, the teacher training programs at the Faculty of Education in Turkey instruct teaching profession courses, such as classroom management, school experience, and teaching practice, based on the general framework suggested by the CoHE. Since the programs all follow the same curriculum, this frame helps all preservice teachers in Turkey get the same classroom management education. Although classroom management courses are generally offered as theoretical courses in this framework, these courses are also supported by the mandatory courses of observation in schools and teaching practice. Therefore, it can be put forward that preservice teachers can develop their classroom management efficacy levels both theoretically and practically.

Secondly, attitudes toward the teaching profession are not a subject which is instructed as a course per se. Instead, it is integrated within many courses to establish positive attitudes toward the teaching profession among preservice teachers. Some of these courses are classroom management and observation in schools and teaching practice, all of which are mandatory. Through these courses, the nature of the teaching profession is gained both theoretically and practically. So, it is rather vital to address classroom management efficacy and attitudes toward the teaching profession together.

Thirdly, some might think that academic performance is not representative or does not accurately measure successful learning. This study considers both perspectives: (i) if GPA score is seen as an accurate measurement method, its relations with other terms should be considered. (ii) if GPA score is not seen as an accurate measurement method, it should then be argued why preservice teachers have a chance to graduate based on such a system. However, academic performance is often represented by a GPA score, and this score is accepted worldwide. In this context, a GPA score means that students' academic performance is defined by their numeric or letter scores. These scores are formally laid out by universities' education teaching and exam regulations. For this reason, this study accepts this universally accepted measurement and uses it as a self-reported GPA while focusing on its relationship with classroom management efficacy and attitudes toward the teaching profession.

Overall, in line with the literature and the rationales discussed above, concentrating on these three terms in regards to the teaching profession could be important. By doing this, this study may be the first one addressing the relationships between these terms. Specifically speaking, this study investigates the potential direct and indirect effects of attitudes toward the teaching profession (ATP) and academic performance (AP), which have earlier been reported to impact preservice teachers' classroom management efficacy beliefs in the literature. In accordance with this aim, the variables ATP, AP and classroom management efficacy (CME) are addressed, which are known to be positively interrelated (Hamutoğlu, Gültekin-Sezen, Yılmaz-Özden & Savaşçı 2018; Gültekin-Sezen, Hamutoğlu, Savaşçı & Yılmaz-Özden 2018; Moore 2008; Özder, Konedralı, & Zeki 2010; Kınay, Elçiçek, & Oral 2015; Demirtaş, Cömert, & Özer, 2011; Martin, Yin, & Baldwin, 1998). Taken together, this study addresses the following research questions through a path analysis:

RQ1. How do attitudes toward the teaching profession (ATP) directly affect classroom management efficacy beliefs (CME)?

RQ2. How does academic performance (AP) directly affect classroom management efficacy beliefs (CME)?

RQ3. How do attitudes toward the teaching profession (ATP) directly affect academic performance (AP)?

RQ4: How do attitudes toward the teaching profession (ATP) indirectly affect classroom management efficacy beliefs (CME) through academic performance (AP)?

2. METHOD

Design

This quantitative study adopted a survey model. In this type of research, data are collected to determine specific characteristics of individuals, groups, or the physical environment, irrespective of the effort to alter or affect them (Büyüköztürk et al., 2017; Fraenkel & Wallen, 2006).

Participants

The participants were 483 preservice teachers (PSTs) (359 females, 124 males) enrolled in different undergraduate teacher training programs at the Faculty of Education, Sakarya University. We employed the participants by using the convenience sampling method, who participated voluntarily. They could withdraw from the study anytime they wanted. The criterion for participating in the study was that the participants took the Classroom Management course. Since this course is offered in the fifth or sixth semester in the curriculum, 3rd and 4th grade students were invited to participate. The ethics committee approval for this study was obtained from the Ethics Committee of the Rectorate of Sakarya University, dated 13/01/2021 and numbered 30/45.

Procedure

In this study, we used path analysis -a subset of the Structural Equation Model (SEM)- to test the probability of causal relationship among the variables (Fraenkel & Wallen, 2006; Raykov & Marcoulides, 2006). As indicated by Fraenkel and Wallen (2006), path analysis generally involves formulating a theory regarding the potential reasons behind a phenomenon (i.e., causal variables) and establishing whether correlations are consistent with the proposed theory afterwards. Path analysis also enables analysis for causal modeling, which can only be run using multiple regression analysis techniques (Bordens & Abbott, 2011). Effect sizes for each structural equation were also calculated.

Instruments

The data for this study came from two scales and self-reported Grade Point Average (GPA) scores.

Scale for Students' Attitude toward the Teaching Profession-SSATP: To measure preservice teachers' professional attitudes regarding the teaching profession, we collected data with the "Scale for Students' Attitude toward the Teaching Profession" (SSATP) (Semerci, 1999). This one-factor scale is composed of 30 items. "Teaching makes me happy" and "Teaching is a responsibility" are exemplary items on the scale. Concerning the scale's reliability, Cronbach's Alpha was .68, whereas concerning its validity, factor loads varied between .35 and .77. On the 5-point Likert scale ("Strongly agree=5"; "Strongly disagree=1"), scores range between 30 and 150. Eight items in the scale (4, 11, 20, 23, 25, 26, 27, and 28) are reverse-coded. Higher scores on the scale refer to an increased attitude toward the teaching profession.

Teacher Candidates' Classroom Management Competency Scale-TCCMCS: To measure preservice teachers' classroom management efficacy beliefs, we used the "Teacher Candidates' Classroom Management Competency Scale-TCCMCS" (Elçiçek, Kinay, & Oral, 2015). In the scale, there are five categories and 30 items: relationship management ($n = 9$), teaching management ($n = 7$), behavior management ($n = 6$), physical order management ($n = 5$) and time management ($n = 3$). The sample items of

the factors are as follow: “Ensuring communication among students” (relationship management), “Performing different activities to eliminate learning deficiencies” (teaching management), “Not letting student speak before raising his/her hand” (behavior management), “Placing instructional tools in an orderly manner” (physical order management) and “Not using time during the course outside the educational purposes” (time management). Cronbach’s alpha reliability coefficients were .87, .84 for relationship management, .84 for teaching management, .60 for behavior management, .76 for physical order management, and .57 for time management. In the 5-point Likert scale (ranging from “Very incompetent=1” to “Very competent=5”), scores range between 30 and 150. The five-factor construct achieved in TCCMCS can be evaluated as five separate scales, and individual scores can be obtained in each subscale. Items 32, 38, 43, 44, and 48 are reverse-coded. One can also obtain a total score of preservice teachers’ classroom management competencies. Higher scores on the scale mean firmer classroom management efficacy beliefs.

Self-reported Grade Point Average (GPA) score for Academic Performance:

Academic performance was measured by the preservice teachers’ self-reported GPA scores. According to Sakarya University Undergraduate and Associate Degree Education Teaching and Exam Regulations, the ranges correspond to a letter grade and GPA score as follows: between 90-100 to AA (4.00); between 85-89.99 to BA (3.50); between 80-84.99 to BB (3.00); between 75-79.99 to CB (2.50); between 65-74.99 to CC (2.00); between 58-64.99 to DC (1.50); between 50-57.99 to DD (1.00); between 40-49.99 to FD (0.50); between 0-39.99 to FF (0.00). In this context, the data referred to as academic performance were collected as continuous data (e.g., 2.54), based on this regulation.

Analysis

Data were analyzed through SPSS and AMOS softwares, and Microsoft Excel. While SPSS software was used to analyze the mean, standard deviation, and correlation coefficient of variables, AMOS was used to test the model, and Microsoft Excel was used to calculate the effect sizes.

3. FINDINGS

Path analysis, which was run to test the hypothesized model, investigated the potential causal connection among classroom management efficacy beliefs, academic performance, and attitudes toward teaching. In Table 1, the descriptives and correlation coefficient of variables are reported.

Table 1

Descriptives and correlation coefficient of variables

	N	Min.	Max	M	SD	Skewness	Kurtosis	(1)	(2)	(3)
CME (1)	483	81	150	113.75	11.38	-.149	.126	1		
AP (2)	483	1.30	4.00	2.97	.57	-.496	-.348	.114**	1	
ATP (3)	483	81	136	110.41	8.13	-.674	.686	.415**	.134**	1

Note. ATP: Attitudes toward the teaching profession; AP: Academic performance; CME: Classroom management efficacy beliefs, *p .05 ** p< .01

As indicated in Table 1, the relationship among the variables was statistically significant and at the expected level. Findings also indicate that the effects among the variables were significant. Tolerance (> 0.2) and VIF (<10) indices were checked to identify the multicollinearity problem among the variables, and the findings did not indicate any problems among the variables. Furthermore, the Skewness and Kurtosis values indicated normal distribution (Mertler & Vannatta, 2005). Regarding the relationship among the variables, the following was found: $r_{CME-AP} = .114$; $r_{CME-ATP} = .415$ and $r_{AP-ATP} = .134$. Specifically, a weak positive relationship between CME and AP, a moderate positive relationship between CME and ATP, and a weak positive relationship between AP and ATP were found (Davis, 1971).

Table 2

Perfect and acceptable fit indices

Fit Criteria	Perfect Fit Indices	Acceptable Fit Indices	Achieved Fit Indices
(χ^2/df)	≤ 3	$\leq 4-5$.042
AGFI	$\geq .90$	$\geq .85$	1
GFI	$\geq .90$	$\geq .85$	1
CFI	$\geq .97$	$\geq .90$	1
RMSEA	$\leq .05$.06-.08	.000
SRMR	≤ 0.05	.06-.08	.0034

As also presented in Table 2, the model had acceptable and perfect fit indices ($\chi^2/SD = 0.042$; RMSEA = 0.000; SRMR = 0.0034; CFI = 1; GFI = 1; AGFI = 1) (Brown, 2015; Hu & Bentler, 1999; Joreskog & Sorbom, 1993; Kline, 2015). The path analysis, which was developed and tested in this study, is shown in Figure 1.

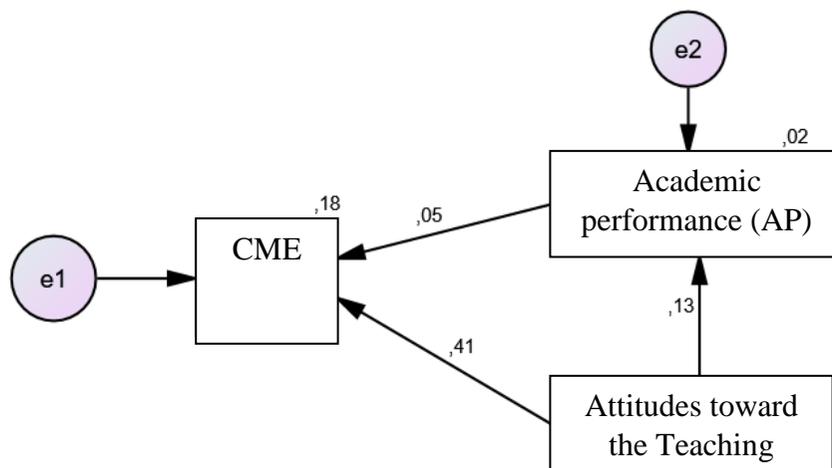


Figure 1. Findings of the Path Analysis

Table 3 reports the direct and indirect effects of variables of the hypothesized model on the CMC variable.

Table 3

Direct, indirect, and total effects on the CMC variable

Independent variable	Dependent variable	Total effect	Direct effect	Indirect effect	Standard error	Critical ratio (t)
ATP	CME	.41	.41	.007	.06	9.88***
ATP	AP	.13	.13	.000	.003	2.96***
AP	CME	.05	.05	0000	-	-

Note. ATP: Attitudes toward the teaching profession; AP: Academic performance; CME: Classroom management efficacy beliefs, *** $p < .001$

The model indicated that attitudes toward the teaching profession (ATP) had a direct and positive effect on academic performance (AP) ($\beta = 0.13$, $p < .001$) and on classroom management efficacy beliefs (CME) ($\beta = 0.41$, $p < .001$). Moreover, academic

performance (AP) had a direct and positive effect ($\beta = 0.05$, $p < .001$) on classroom management efficacy beliefs (CME). Eighteen percent 18% ($R^2 = .18$) of the variance in CME was explained by ATP and AP. In addition, ATP and AP accounted for 17% ($R^2 = .17$) and 2% ($R^2 = .02$) of the variance in CME, respectively. Also, AP alone explained the CME at 1% ($R^2 = .01$). It can consequently be argued that academic performance (AP) had a small effect, even though it was a significant variable explaining CME. Similarly, ATP explained AP at a low level, despite being a significant variable for AP.

Effect Size

Regarding effect size, Cohen (1988) recommends calculating the standardized (f^2) value for regression analyses and linear models to test statistical and practical significance. The formula for f^2 value is as follows: Multiple correlation coefficient (R^2) is divided by its subtraction from 1 [$1 - R^2$ ($f^2 = R^2 / (1 - R^2)$)]. Cohen's (1988) specifications suggest that $.02 \leq f^2 < .15$ refers to a small, $.15 \leq f^2 < .35$ to a medium, and $.35 \leq f^2$ to a large effect. As illustrated in Table 4, this study had a medium effect size ($R^2 = .18$; $f^2 = .22$).

Table 4

Effect sizes

Independent variable	Dependent variable	R^2	f^2
ATP	CME	.17	.20
AP	CME	.01	.01
ATP	AP	.02	.02
AP+ATP	CME	.18	.22

Note. ATP: Attitudes toward the teaching profession; AP: Academic performance; CME: Classroom management efficacy beliefs

As indicated in Table 4, ATP had a medium effect on CMC ($R^2 = .17$; $f^2 = .20$) and a small effect on AA ($R^2 = .02$; $f^2 = .02$). It can be stated that AP had a small effect on CME ($R^2 = .01$; $f^2 = .01$). Moreover, ATP and AP had a medium effect on CME together ($R^2 = .18$; $f^2 = .22$).

4. DISCUSSION

This path analytic study aimed to investigate the direct and indirect effects of preservice teachers' attitudes toward teaching (ATP) and academic performance (AP) on their classroom management efficacy beliefs (CME). Regarding the research questions, findings indicated that (1) attitudes toward the teaching profession affected classroom

management efficacy beliefs directly and positively; (2) academic performance affected classroom management efficacy beliefs directly and positively; (3) attitudes toward the teaching profession affected academic performance directly and positively; and (4) attitudes toward the teaching profession affected classroom management efficacy beliefs through academic performance indirectly and positively. As for the effect sizes, attitudes toward the teaching profession had a medium effect on classroom management efficacy beliefs and a small effect on academic performance; academic performance had a small effect on classroom management efficacy beliefs; and attitudes toward teaching and academic performance together had a medium effect on classroom management efficacy beliefs.

Relationship between Classroom Management Efficacy Beliefs (CME) and Academic Performance (AP)

Findings indicated a weak but positive relationship between preservice teachers' classroom management efficacy beliefs and academic performance. It can, therefore, be stated that preservice teachers' academic performance increased at a low rate as their classroom management efficacy beliefs increased. On the other hand, academic performance was a significant predictor of classroom management efficacy beliefs and had a small effect on classroom management efficacy beliefs. These results concur with the findings of earlier studies. For instance, Moore (2008) similarly indicated that the teachers who had the best classroom management practices had higher academic performance scores and effective classroom management efficacy seemed to affect student performances. On the other hand, Ünlü, Kaşkaya, and Kızılkaya (2017) indicated that preservice teachers' classroom management efficacy did not differ significantly by academic achievement (GPA).

In this study, classroom management efficacy beliefs did not differ significantly when addressed with regard to self-efficacy beliefs; however, a statistically significant relationship was reported between classroom management efficacy beliefs and academic performance when handled separately. This might be due to the fact that opinions on classroom management efficacy beliefs could not be extensively and clearly investigated since the concept of self-efficacy is so multifaceted. Therefore, these findings suggest that classroom management be investigated separately while addressing academic performance regarding classroom management efficacy beliefs.

Relationship between Attitudes toward the Teaching Profession (ATP) and Academic Performance (AP)

Findings illustrated a positive direct relationship between preservice teachers' classroom management efficacy beliefs and their academic performance. Hence, academic performance tended to increase as attitudes toward teaching increased. Nonetheless, it was concluded that attitudes toward teaching were a significant predictor of academic performance and had a small effect on academic performance. Some earlier studies reported similar results. For example, Mathai (1992, as cited in

Bhargava & Pathy 2014) and Özdemir (2014) reported a significant and positive relationship between professional attitudes and students' academic performance. Similarly, Büyüköztürk (2004) reported a strong positive relationship between attitudes toward teaching and academic performance, and professional attitude was a predictor of academic performance. Also, Gnanaguru and Kumar (2007) put forward that the preservice teachers with moderate and high academic performance exhibited better and more professional attitudes than those with low academic performance. From another perspective, Özder et al. (2010) found that positive attitudes toward the teaching profession increased student academic performance.

Relationship between Classroom Management Efficacy Beliefs (CME) and Attitudes toward the Teaching Profession (ATP)

Findings indicated a moderate positive relationship between preservice teachers' attitudes toward teaching and their classroom management efficacy beliefs. It can thus be stated that classroom management efficacy beliefs increased as the attitudes increased. Furthermore, professional attitudes toward teaching affected classroom management efficacy beliefs directly and positively at a medium level, thereby being a significant predictor of classroom management efficacy beliefs. In the literature, on the one hand, Demirtaş et al. (2011) observed a weak but positive relationship between classroom management and vocational attitude. On the other hand, Kinay et al. (2015) found a relatively high and positive relationship between professional attitudes and classroom management efficacy. However, contrary to the findings of this study, they concluded that classroom management efficacy significantly explained attitudes toward teaching. Contrary to Kinay et al.'s (2015) study, this study used professional attitudes toward teaching as a predictor of classroom management efficacy.

Indeed, according to Morgan (1984) and Küçükahmet (1986), teachers' attitudes toward the profession are reflected upon their behaviors and the classroom atmosphere by playing a key role in the design of educational-instructional processes (as cited in Semerci and Semerci, 2004). According to Rimm-Kaufman and Sawyer (2004), on the other hand, teachers' attitudes and priorities are linked to their behaviors and practices in the classroom. As argued by Kağıtçıbaşı (2010), attitudes affect both social perceptions and behaviors (as cited in Demirtaş et al., 2011). For these reasons, it was deemed more appropriate to use teaching profession attitude as a predictor of classroom management efficacy beliefs in this study, which may be useful for the literature as it provides a different perspective. It is recommended that future studies are conducted with the same point of view. Considering that attitudes toward teaching were a significant predictor of classroom management efficacy beliefs with a moderate effect, attitudes toward teaching should be taken into account to enhance preservice teachers' classroom management efficacy beliefs.

The Relationship among Attitudes toward the Teaching Profession (ATP), Academic Performance (AP), and Classroom Management Efficacy Beliefs (CME)

Findings showed that attitudes toward teaching affected classroom management efficacy beliefs through academic performance indirectly and positively. Furthermore, attitudes toward teaching and academic performance had a medium effect on classroom management efficacy beliefs. Similarly, Cornelius (2000) found that preservice teachers' attitudes toward teaching and academic performance affected their efficacy (as cited in Bhargava & Pathy, 2014). Moore (2008) explored the effect of effective classroom management strategies on student achievement and identified personal teaching behaviors that could increase teacher efficiency and enhance student achievement in the classroom. The effects of attitudes toward the profession, academic performance, and classroom management efficacy together were shown in this regard.

5. CONCLUSION

These findings might lead to the conclusion that academic performance had a small effect size even though it significantly explained classroom management efficacy beliefs. Similarly, despite being a significant variable for academic performance, attitudes toward teaching predicted it at a low level. Thus, it can be discussed that the strength of positive attitudes toward teaching has a more significant impact on classroom management efficacy beliefs than academic performance. The fact that attitudes toward teaching had a small effect on academic performance also brings about whether performance or attitude should be considered more when practicing the teaching profession. An individual may have low academic performance but a highly positive attitude toward the teaching profession. Similarly, he/she may have high academic performance but low classroom management efficacy. Accordingly, we recommend that the findings of this study are interpreted within the context of teacher training policies in the Turkish context. We also recommend that future researchers examine variables of classroom management efficacy and teaching profession attitudes more in-depth because academic performance alone is not enough to practice the teaching profession. Findings also indicated that the variables explaining classroom management efficacy beliefs had a medium effect. Examining different variables affecting classroom management efficacy beliefs and attitudes toward teaching in future studies could be an important contribution to teacher training policies and planning for teacher training programs.

Instructors need to empower preservice teachers' attitudes toward the profession through activities, either in elective courses or in the social environment. It is also recommended that preservice teachers be oriented toward practices through which they will experience the school climate even further in long-term projects organized by faculty administrations with school-university partnerships. Furthermore, future studies can investigate the attitudes of the first- and second-grade preservice teachers by

considering cognitive, affective, and psychomotor aspects on the strength of their attitudes. As preservice teachers will need effective classroom management competencies for branch and internship courses offered in the third and fourth grades, examining such factors might prevent any possible problems regarding their classroom management efficacy beliefs. All in all, it is noteworthy to note that although the Classroom Management course is offered in the third grade in the current teacher education programs, the shortcomings of the classroom management efficacy beliefs can be overcome by strengthening preservice teachers' attitudes toward teaching and by providing them more opportunities in their first years of undergraduate education (initial teacher training).

Given the results that academic performance had a smaller effect on classroom management efficacy beliefs in comparison with attitudes toward teaching profession, the focus should not be on academic performance. These findings could also draw attention to the practices in classroom management courses as they generally tend to aim to improve students' cognitive aspects and the achievement-oriented exams overshadow their affective aspects. Teaching is a profession that focuses not only on the cognitive domain but also on the affective domain. These findings suggest that the policy to accept students to teaching programs with a specific score obtained in a central examination system should be improved and allow them to graduate to practice the teaching profession without examining the program outputs of several variables, such as vocational attitudes, classroom management competencies, or pedagogical and content knowledge. Also, within the scope of teacher education, School Experience and Teaching Practice courses can be addressed in revealing the effect of self-efficacy on performance in future studies, and can be validated as new models exploring additional variables.

References

- Bayraktar, S. (2011). Turkish preservice primary school teachers' science teaching efficacy beliefs and attitudes toward science: The effect of a primary teacher education program. *School Science and Mathematics, 111*(3), 83-92.
- Bhargava, A., & Pathy, M. (2014). Attitude of student teachers towards teaching profession. *Turkish Online Journal of Distance Education, 15*(3), 27-36.
- Bordens, K. S., & Abbott, B. B. (2011). *Research design and methods: A process approach*. (8th ed). Boston: McGraw Hill.
- Brophy, J. (2011). History of research on classroom management. In C. M. Evertson and C. S. Weinstein (Eds.), *Handbook of classroom management: Research, practice, and contemporary issues* (pp. 17-43). New York, NY: Routledge.
- Brown, T. A. (2015). *Confirmatory factor analysis for applied research* (2nd ed.). New York, NY: Guilford Publications.

- Büyüköztürk, Ş. (2004). Predictors of academic achievement for elementary teacher education students in Turkey. *International Journal of Educational Reform*, 13(4), 388-402.
- Büyüköztürk, Ş., Kılıç Çakmak, E., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2017). *Bilimsel araştırma yöntemleri [Scientific research methods]* (23rd ed.). Ankara: Pegem Akademi.
- Celep, C. (2002). *Classroom management and discipline*. (2nd edition). Ankara: Anı Publishing.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Cornelius, (2000). *Teacher competence associated with intelligence, attitude towards teaching profession and academic achievement of teacher trainees* (Unpublished Master's thesis). University of Kerala, India.
- Davis, J. A. (1971). *Elementary survey analysis*. Englewood Cliffs, NJ: Prentice-Hall.
- Davis, J. R. (2018). Introduction: The problem of integrating classroom management into the lives of those learning to teach. In *Classroom management in teacher education programs* (pp. 1-14). Palgrave Macmillan: Cham.
- 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 the teaching profession]. *Eğitim ve Bilim*, 36(159), 96-111.
- Ekici, G. (2008). Sınıf yönetimi dersinin öğretmen adaylarının öğretmen özyeterlik algı düzeyine etkisi [The effect of classroom management course on teacher candidates' self-efficacy perception level]. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 35, 98-110.
- Elçiçek, A., Kınay, A., & Oral, P. (2015). Öğretmen adaylarının sınıf yönetimi yeterlik ölçeğinin geliştirilmesi: geçerlik ve güvenilirlik çalışması [Developing teacher candidates' classroom management competency scale: validity and reliability study]. *Bartın Üniversitesi Eğitim Fakültesi Dergisi*, 4(1), 51-63.
- Erden, M. (2001). *Sınıf yönetimi [Classroom Management]*. İstanbul: Alkım Yayınevi.
- Evertson, C. M., & Weinstein, C. S. (2011). Classroom management as a field of inquiry. In C. M. Evertson and C. S. Weinstein (Eds.), *Handbook of classroom management: Research, practice, and contemporary issues* (pp. 3-16). New York, NY: Routledge.
- Fraenkel, J. R., & Wallen, N. E. (2006). *How to design and evaluate research in education* (6th ed.). New York, NY: McGraw-Hill.
- Gnanaguru, S. A., & Kumar, S. (2007). Attitude of under normal and overachievers towards teaching profession and their home environment. *Journal of All India Association for Educational Research*, 19(3), 36-37.
- Gültekin-Sezen, G., Hamutoğlu, B. Savaşçı, M., & Yılmaz-Özden, S. (2018). *The effects of academic achievement and classroom management course grade on classroom management competency levels*. Paper presented at 27th International Conference on Educational Sciences, Antalya, Turkey.

- Hamutoğlu, B., Gültekin-Sezen, G., Yılmaz-Özden, S., & Savaşçı, M. (2018). *Investigating the effect of academic achievement on attitudes toward the teaching profession*. Paper presented at the 27th International Conference on Educational Sciences, Antalya, Turkey.
- Holzberger, D., Philipp, A., & Kunter, M. (2013). How teachers' self-efficacy is related to instructional quality: A longitudinal analysis. *Journal of Educational Psychology, 105*(3), 774-786.
- Hu, L., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*(1), 1-55.
- Joreskog, K. G., & Sorbom, D. (1993). *Lisrel 8: Structural Equation Modeling with the SIMPLIS Command Language*. Lincolnwood, IL: Scientific International Software, Inc.
- Kaliska, P. (2002). *A comprehensive study identifying the most effective classroom management techniques and practices*. (Unpublished master's thesis). University of Wisconsin-Stout, USA.
- Kinay, İ., Elçiçek, Z., & Oral, B. (2015). Öğretmen adaylarının sınıf yönetimi yeterlikleri ile öğretmenlik mesleğine yönelik tutumları arasındaki ilişkinin incelenmesi [Examining the relationship between teacher candidates' classroom management competencies and their attitudes towards the teaching profession.]. *International Journal of Eurasia Social Sciences, 6*(19), 206-217.
- Kline, R. B. (2015). *Principles and practice of structural equation modeling* (4th ed.). New York, NY: Guilford publications.
- Lazarides, R., Watt, H. M., & Richardson, P. W. (2020). Teachers' classroom management self-efficacy, perceived classroom management and teaching contexts from beginning until mid-career. *Learning and Instruction, 69*(101346), 1-14.
- Martin, N. K., & Sass, D. A. (2010). Construct validation of the Behavior and Instructional Management Scale. *Teaching and Teacher Education, 26*(5), 1124-1135.
- Martin, N. K., Yin, Z., & Baldwin, B. (1998). Construct validation of the attitudes and beliefs on classroom control theory. *Journal of Classroom Interaction, 33*(2), 6-15.
- Mertler, C. A., & Vanatta, R. A. (2005). *Advanced and multivariate statistical methods* (3rd Ed.). Glendale, CA: Pyrczak Publishing.
- Moore, D. H. (2008). Analyzing relationships between classroom management strategies, student achievement scores, and teachers' attitudes and beliefs in diverse elementary settings (Unpublished Doctoral dissertation) Capella University, USA.
- Özdemir, V. (2014). İngiliz Dili Eğitimi Programı öğrencilerinin öğretmenlik mesleğine ilişkin tutumlarının bazı sosyo-demografik değişkenler açısından incelenmesi [Investigation of English Language Education Program students' attitudes towards teaching profession in terms of some socio-demographic variables]. *Uluslararası Avrasya Sosyal Bilimler Dergisi, 5*(15), 16-28.
- Özder, H., Konedralı, G., & Zeki, C. P. (2010). Öğretmen adaylarının öğretmenlik mesleğine yönelik tutumlarının çeşitli değişkenler açısından incelenmesi [Examination of teacher

- candidates' attitudes towards the teaching profession in terms of various variables]. *Kuram ve Uygulamada Eğitim Yönetimi Dergisi*, 16(2), 253-275.
- Raykov, T., & Marcoulides, G. A. (2006). *A first course in structural equation modeling* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Rimm-Kaufman, S. E., & Sawyer, B. E. (2004). Primary-grade teachers' self-efficacy beliefs, attitudes toward teaching, and discipline and teaching practice priorities in relation to the responsive classroom approach. *The Elementary School Journal*, 104(4), 321-341.
- Semerci, Ç. (1999). Öğrencilerin öğretmenlik mesleğine ilişkin tutum ölçeği [Students' attitude scale towards the teaching profession]. *Eğitim ve Bilim*, 23(111), 51-55.
- Semerci, N., & Semerci, C. (2004). Attitudes toward teaching in Turkish. *Firat University Journal of Social Science*, 14(1), 137-146.
- Senemoğlu, N., & Özçelik, D. A. (1989). Ortaöğretime öğretmen yetiştirmede "Meslek bilgisi" bakımından Fen-Edebiyat ve Eğitim Fakültelerinin etkililiği [The effectiveness of Science, Literature and Education Faculties in terms of "vocational knowledge" in training teachers for secondary education]. *Çağdaş Eğitim*, 14(142, 143, 144), 18-21, 32-37, 31,37.
- Şenel, H. G., Demir, İ., Sertelin, Ç., Kılıçaslan, A., & Köksal, A. (2004). Öğretmenlik mesleğine yönelik tutum ve kişilik özellikleri arasındaki ilişki [The relationship between attitudes towards the teaching profession and personality traits]. *Eurasian Journal of Educational Research*, 15, 99-109.
- Temizkan, M. (2008). Türkçe öğretmeni adaylarının öğretmenlik mesleğine yönelik tutumları üzerine bir araştırma [A study on the attitudes of Turkish teacher candidates towards the teaching profession.]. *Türk Eğitim Bilimleri Dergisi*. 6(3), 461-486.
- Ünlü, İ., Kaşkaya, A., & Kızılkaya M. F. (2017). Sosyal bilgiler öğretmen adaylarının öz-yeterlik inançlarının çeşitli değişkenler açısından incelenmesi [Examination of self-efficacy beliefs of social studies teacher candidates in terms of various variables]. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi (KEFAD)*, 18(2), 651-668.

The ethics committee approval for this study was obtained from the Ethics Committee of the Rectorate of Sakarya University, dated 13/01/2021 and numbered 30/45.

Statement of Contribution of Researchers to the Article:

1st author contribution rate: %25

2nd author contribution rate:%25

3rd author contribution rate:%25

4th author contribution rate:%25

Conflict of Interest Statement

There is no conflict of interest

Statement of Financial Support or Acknowledgment:

No financial support was received from any institution for this study. No Acknowledgment.