Investigation of the Relationships Between Pre-Service Teachers' Classroom Management Anxiety with Their Career Adaptation and Optimism

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This study examines the relationships between pre-service teachers' career adaptability with optimism and their classroom management anxieties. The variables of choosing the teaching profession willingly and thinking that teaching is the right choice are part of the study with gender and department. A personal information form and two different data collection tools were administered to 367 pre-service teachers. The data was analysed using Hierarchical regression analysis. The results show that career adaptability and optimism significantly predicted the two sub-dimensions of classroom management anxiety. In addition, the results reveal that willingly choosing the teaching profession was effective on anxiety.

KEYWORDS: Anxiety, Career Adaptation, Classroom Management, Optimism, Pre-Service Teachers

Introduction

The career approach, in which teaching and teaching approaches are changed and individualized and profession-specific competencies are emphasized, is seen as a vital skill in education (Tolentino et al., 2014). This skill affects the adaptation process and the speed of individuals trying to adapt to their jobs (Koen et al., 2012). Adaptation of the individual is also related to general well-being indicators (Santilli et al., 2014) such as well-being towards the profession (Buyukgoze-Kavas et al., 2015). The general well-being of an individual is very important for human development. In many studies, individual well-being has been associated with physical well-being (Peterson

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et al., 1988), work productivity (Seligman & Schulman, 1986), and occupational adjustment (Rottinghaus et al., 2005). Professional adaptation is very important for pre-service teachers who are at the beginning of their careers. According to Skaalvik and Skaalvik (2016), 50% of new teachers leave the profession within the first 5 years. There are many reasons for this situation. However, for teachers who are at the beginning of their careers, their adaptation to their careers and their anxiety about being vulnerable in the classroom are among the main reasons for leaving (Mclean et al., 2019). Sadik and Nasirci (2019) reported that teachers who are at the beginning of their careers devote considerable energy to classroom management and this situation causes anxiety. Anxiety about classroom management causes poor performance in turn (Mishra & Yadav, 2013) and lowers the level of interest in the profession (Ingersoll & Smith, 2003; Özkul & Dönmez, 2021). However, the important issue of classroom management anxiety has been dealt with in a very limited way in the literature (Morton et al., 1997; Önder & Öz, 2018; Oral, 2012).

Significance of the Research

The findings obtained from studies conducted with pre-service teachers revealed that those with serious anxiety about classroom management have hesitations about starting their careers, and their careers are short-lived (Jia et al., 2020). For this reason, it is important to understand the concerns that pre-service teachers have before starting their professional lives. Identifying the factors causing anxiety and possible coping strategies and preventive strategies may help them. In this context, it is necessary to address the career adaptability and optimism of the individual regarding this profession for reducing and eliminating anxiety. In the relevant literature, a direct relationship was found between career adaptability and optimism, and the mediating roles of different variables were examined (Mclennan et al., 2017; Tolentino et al., 2014). However, the relationship between a pre-service teacher's career adaptation and optimism and that individual's classroom management anxiety has not been addressed.

It is necessary to examine the variables of career adaptability and optimism together with classroom management anxiety to support the individual's interest in and thoughts about his or her career in the classroom environment. Such findings would make it possible to guide teacher training institutions and make recommendations for the appropriate infrastructure for new understandings of career planning. For this purpose, in this study, the relationships of career adaptability and optimism with classroom management anxiety were explored.

Purpose of the Study

This study was conducted with pre-service teachers who had completed a classroom management course and were studying in the fourth year of education faculties. In the related literature, pre-service teachers' classroom management anxiety (Önder & Öz, 2018; Oral, 2012) and career adaptability (Douglass & Duffy, 2015; Guo et al., 2014; Mclennan et al., 2017; Rottinghaus et al., 2005) were considered together with different variables. Although no study directly addresses the relationships between classroom management anxiety and career adaptability and optimism, it has been observed that career adaptability has a mediating effect on anxiety (Jia et al., 2020). On the other hand, whether pre-service teachers voluntarily choose the teaching profession and whether they accept teaching as a suitable profession for themselves may also have an impact on classroom management anxiety. For this reason, the effects of demographic variables along with career adaptability and optimism are discussed in this study and predictors of classroom management anxiety are examined. It aims to investigate the possible relationships between pre-service teachers' classroom management anxiety and their career adaptability and optimism. In this context, the sub-problems of this study were determined as follows:

1. Are there any significant relationships between the demographic characteristics of pre-service teachers, their willingness to choose the teaching profession and whether teaching is the right profession for them, their career adaptability and optimism, and their classroom management anxiety levels?

2. Are pre-service teachers' demographic characteristics, whether they chose the teaching profession voluntarily, and whether teaching is the right profession for them, as well as career adaptability and optimism, significant predictors of classroom management anxiety?

Theoretical Background

Career Adaptability and Optimism

Career adaptability is a conceptual framework developed by Savickas (2005) as a part of career construction theory, and its relationships with both self-regulation and motivation theories continue to be investigated. According to this framework, career adaptability includes a set of attitudes, competencies, and behaviours that individuals use to adapt to jobs that suit them (Savickas, 2015). These competencies and behaviours are addressed within the dimensions of concern, control, curiosity, and confidence. In the dimension of concern, the individual is aware of the future of this profession and makes

plans for it. In the control dimension, self-management and the sense of determination regarding the profession are managed. In the curiosity dimension, the individual's exploration of this environment is emphasized, and finally, in the confidence dimension, the individual feels productive in solving problems related to this career (Savickas, 2005). Career adaptability is seen as a critical variable for the career development of university students (Douglass & Duffy, 2015) and is expressed as the psychological infrastructure that an individual utilizes in fulfilling these professional development tasks (Guo et al., 2014). This relevant psychological background is often considered together with career optimism (Mclennan et al., 2017; Rottinghaus et al., 2005; Zorver & Owen, 2022).

Career optimism has a different meaning than optimism in general (Carver & Scheier, 2014). It is expressed as an individual being more comfortable in planning his or her future tasks related to his or her career and seeing the positive aspects of this career (Rottinghaus et al., 2005). An individual with high career optimism is interested in the future of this career and is enthusiastic about career development (Mcilveen et al., 2013). This desire and enthusiasm help the individual to have a more secure perspective on the career while fulfilling career planning tasks (Mclennan et al., 2017). Therefore, the individual can safely overcome the obstacles encountered in his or her career, ensuring readiness for career adaptation (Tolentino et al., 2014). Individuals with career optimism can manage changes and uncertainties about their careers positively and can achieve career harmony (Aspinwall et al., 2001). Therefore, career adaptability and optimism directly affect each other (Tolentino et al., 2014), and optimism facilitates career adaptability (Mcilveen et al., 2013). It has been reported that candidates who have achieved career adaptability and optimism will feel less classroom management anxiety (Jia et al., 2020). Therefore, the classroom management anxiety variable was added to the study.

Classroom Management Anxiety

Anxiety above a certain level is accepted as a situation that negatively affects individuals in all professions (Wilson, 2002). Classroom management anxiety limits teachers' motivation to work and their communication skills and has negative effects on time management (Knoop, 1994). It has been reported that the most common anxiety experienced by teachers who have just started their careers is related to classroom management (Jones & Jones, 2007; Sammephet & Wanphet, 2013). According to Morton et al. (1997), classroom management anxiety affects pre-service teachers more than pedagogical anxiety because pre-service teachers believe that it is necessary to have an effective classroom management approach. Effective classroom management involves organizing the classroom and student behaviours to maximize student learning (Kel-

lough & Kellough, 1996). However, classroom management represents a wide spectrum that also includes establishing good relations with students, making the curriculum active and interesting, and developing behaviour management skills (Reupert & Woodcock, 2015). Shortcomings within this spectrum will affect teachers' behaviours and cause their motivation levels to decrease, leading to professional unhappiness (Gezen, 2021). Classroom management anxiety may be related to the individual's personality traits. However, if anxiety arises due to issues of professional competence, that anxiety might be underlined by a lack of knowledge or inexperience about classroom management and field knowledge (Oral, 2012). To address these problems, it is necessary to deal with classroom management anxiety first. Classroom management is not only about the management of student behaviours, but also about the teacher's organization of the lessons, the implementation of purpose-based learning processes, the creation of a positive atmosphere, and, above all, effective teaching in the classroom environment (Al-Zu'bi, 2013). Failure to carry out this process appropriately will increase the level of anxiety and may lead to undesirable situations.

Research Methodology

Research Model

A survey model was used in this study. In survey models, efforts are made to reveal the reflection of change in one variable within another variable (Creswell, 2003). The present study accordingly sought to reveal the possible relationships between the career adaptability and optimism of pre-service teachers and their classroom management anxiety.

Sample for the Study

The participants of this study were fourth-year pre-service teachers studying in education faculties in different regions of Turkey. Pre-service teachers in the final year of the educational program were specifically selected for the sample of this study because they had taken a course on classroom management. In addition, these students had participated in internship practices at school, and so they had been exposed to real classroom environments. Fourth-year students, who are closer to the teaching profession, were deemed more suitable for this study for those reasons. In this context, data were collected from pre-service teachers with the help of an online form in the 2021-2022 academic years. Demographic information about the participating pre-service teachers is presented in Table 1. Accordingly, 300 female and 67 male pre-service teachers were enrolled in the study. Participants were studying in different undergrad-

uate programs of education faculties (i.e., pre-school teaching, primary school teaching, social studies teaching, Turkish teaching). However, for convenience in the analyses carried out within the scope of the study, undergraduate programs were combined into two categories i.e., basic education and secondary education undergraduate programs. Accordingly, 133 of the participants were studying in basic education and 234 were studying in secondary education undergraduate teaching programs. Finally, 301 of the participants had chosen the teaching profession voluntarily and 280 stated that they believed teaching was a suitable profession for them.

Table 1

Demographic Characteristics of Pre-Service Teachers.

Variables	Options	N	%
Gender	Female	300	81.7
	Male	67	18.3
Department of Education	Basic education programs	133	36.2
	Secondary education Undergraduate teaching programs	234	63.8
Voluntarily Chose the Teaching Profession	Yes	301	82.0
	No	66	18.0
Belief in the Suitability of the Profession	Yes	280	76.3
	No	87	23.7

DATA COLLECTION

During the data collection phase, two scales were used together with a personal information form. These data collection tools are described below. Before beginning the research, the necessary ethics committee permission for the data to be collected from participants during the work process was obtained from the Necmettin Erbakan University Social and Human Sciences Scientific Research Ethics Committee in meeting number 3 on 21/03/2021.

Personal Information Form

This form was used to determine the demographic characteristics of the participants. They were asked about their gender, department of education, whether they chose the teaching profession voluntarily, and whether teaching was the right profession for them.

Career Adaptability and Optimism Scale (CAOS)

This scale was developed by Zorver and Owen (2022) to evaluate the career adaptability and optimism of individuals in the transition phase from school life to business life. Since the participants of this study were fourth-year preservice teachers, it was thought that this scale would serve the purpose of the study appropriately.

The scale consists of 18 items and one dimension. Responses to the items are given in a 5-point Likert-type format ranging from '1 = Not at all suitable for me' to '5 = Very suitable for me'. A possible maximum of 90 and a minimum of 18 points are obtained from the scale and the total score is used. High scores mean that individuals can adapt more easily to career transitions and have optimistic perspectives on their career futures. The fit indices (χ^2/ df = 3.98, GFI = 0.85, IFI = 0.93, CFI = 0.93, NFI = 0 .91, TLI = 0.92, RMSEA = 0.08, α = 0.96) calculated for the scale for this study showed that the scale could be used as a reliable measurement tool (Kline, 2011).

Classroom Management Anxiety Scale (CMAS)

This scale was developed by Özkul and Dönmez (2019) to determine preservice teachers' classroom management anxiety. The 5-point Likert-type scale has a structure consisting of 23 items and three dimensions with statements scored from '1 = I totally disagree' to '5 = I totally agree'. The first dimension of the scale reflects communication anxiety and comprises 11 items. The second dimension reflects motivational anxiety and comprises 8 items, while the third dimension reflects time management anxiety and comprises 4 items. Higher scores indicate higher anxiety levels. The fit indices (χ^2/df = 4.55, GFI = 0.90, IFI = 0.91, CFI = 0.91, NFI = 0.89, TLI = 0.90, RMSEA = 0.08, α = 0.97) calculated for the scale for this study showed that the scale could be used as a reliable measurement tool (Kline, 2011).

Data Analysis

In the analysis of the data collected in this study, descriptive analyses and parametric tests were used. Data were transferred to Jamovi 2.0.0 and then

frequency, percentage, arithmetic mean, standard deviation, correlation, and hierarchical regression analyses were performed. Normality assumptions were taken into account for all analyses (Hair et al., 1992) and a dummy variable (Büyüköztürk, 2005) was assigned for the categorical variables in the regression analysis. 'Male' in the gender category and 'secondary education' in the category of education were thus coded as 0 and turned into dummy variables. Likewise, the answers given to the questions of choosing the teaching profession and choosing the right profession were coded as 1 or 0.

Before the analysis, extreme and inappropriate values were extracted and it was tested whether the data met the assumptions of regression analysis. In addition, multicollinearity assumptions between the predictor variables were examined, and it was evaluated whether the variance inflation factor (VIF) and tolerance values for the independent variables were within the determined limits (Field, 2000). Accordingly, the calculated VIF values varied between 1.000 and 1.006. The existence of a multicollinearity problem between the variables was tested with Pearson correlation analysis and it was seen that the relationship between the variables was between 0.05 and 0.39. After confirming the hierarchical regression assumptions, the analysis process was started. Demographic variables were first included in the analysis process. Independent variables were analysed in blocks and each block was accepted as a control variable for the variable that came after it. The order of entry of independent variables into the analysis was determined by considering the relevant literature (Guan et al., 2013; Negru-Subtirica et al., 2015). Demographic variables (gender and department of education) were accordingly placed in the first block. Whether the teaching profession was chosen voluntarily and whether teaching was the right profession were placed in the second block. In the third block, the CAOS scores were placed.

Results of the Study

The descriptive analysis and parametric test results of the study are presented separately in this section.

Descriptive Analysis

First, descriptive analyses were performed on the obtained data, and the results are summarized in Table 2. The scores obtained by the pre-service teachers from the CAOS were at moderate levels (M = 3.98, SD = 0.75). The scores obtained by the pre-service teachers from the CMAS were also moderate (M = 3.51, SD = 1.06). Considering the CMAS sub-dimensions, it was seen that

scores for communication anxiety (M = 3.55, SD = 1.15) and motivation anxiety (M = 3.57, SD = 1.12) were higher than those for time management anxiety.

Table 2

Descriptive Analysis Results.

Scale	No. of Items (k)	Min	Max	Mean	Mean/k	SD
CAOS	18	1.06	5.00	71.64	3.98	0.75
CMAS	23	1.00	5.00	80.73	3.51	1.06
Communication Anxiety	11	1.00	5.00	39.05	3.55	1.15
Motivational Anxiety	8	1.00	5.00	28.56	3.57	1.12
Time Management Anxiety	4	1.00	5.00	13.12	3.28	1.03

Scores according to gender, department of education, having chosen the teaching profession voluntarily, and whether teaching was considered the right profession are presented in Table 3. Accordingly, female participants' career adaptability and optimism scores were higher than those of male participants (M = 3.54, SD = 1.07), while classroom management anxiety levels of male participants were higher than those of female participants (M = 4.00, SD = 0.724). This shows that male participants had more anxiety. When evaluated in terms of the department of education, it was determined that the career adaptability and optimism of the participants studying in secondary education undergraduate programs were higher (M = 3.55, SD = 1.01) and their levels of classroom management anxiety were lower (M = 3.98, SD = 0.047). While the career adaptability and optimism scores of the participants who voluntarily chose the teaching profession were high (M = 3.66, SD = 1.07), their scores for classroom management anxiety were lower (M = 3.53, SD = 0.862).

It is to be expected that those who voluntarily chose the teaching profession will have higher career adaptability and optimism and lower classroom management anxiety. However, there was a difference in scores according to considering teaching to be the right profession or not. Participants who thought that teaching was the right profession for them had higher scores from both the CAOS (M = 3.58, SD = 1.09) and CMAS (M = 4.10, SD = 0.702).

Table 3

Career Adaptability and Optimism with Classroom Management Anxiety Scores According to Variables of Gender, Department of Education, Choosing the Teaching Profession Voluntarily, and Considering Teaching as the Right Profession.

Variables	Options	CAOS		CMAS	
		Mean	SD	Mean	SD
Gender	Female	3.54	1.07	3.98	0.76
	Male	3.33	1.02	4.00	0.72
Department of Education	Basic Education Programs	3.43	1.14	3.99	0.06
	Secondary Education Under-graduate Teaching Programs	3.55	1.01	3.98	0.04
Voluntarily Chose the Teaching Profession	Yes	3.66	1.01	3.53	0. 86
	No	3.48	1.07	4.08	0. 69
Belief in the Suitability of the Profession	Yes	3.58	1.09	4.10	0.70
	No	3.49	0.942	3.62	0.80

Parametric Test Analysis

Correlation analysis was performed to determine the possible relationships between demographic variables, career adaptability, and optimism and the sub-dimensions of classroom management anxiety. The values obtained as a result of that analysis are presented in Table 4. A positive and significant relationship was identified between gender and motivation anxiety, which is a sub-dimension of classroom management anxiety ($r = 0.108$, $p < .001$), while moderate positive relationships were identified for choosing the teaching profession willingly and thinking that teaching was the right choice ($r = 0. 572$, $p < .001$). In addition, low positive correlations were determined between both thinking that teaching was the right choice and choosing the teaching profession willingly and the CAOS (respectively $r = 0.279$ and $r = 0 .269$, $p <$

.001). It was observed that there was a negative relationship between CAOS scores and all sub-dimensions of classroom management anxiety. This relationship was moderate for the communication anxiety and motivation anxiety sub-dimensions (r = -0.680, p < .001) and low for time management (r = -0.030, p < .001).

Table 4

Relationships between Variables.

Variables	1	2	3	4	5	6	7	8
Gender	-							
Department of Education	-0.02	-						
Voluntarily Choosing the Teaching Profession	-0.02	0.02	-					
Belief in the Suitability of the Profession	-0.05	0.03	0.57*	-				
CAOS	0.00	0.00	0.27*	0.26*	-			
Communication Anxiety	0.07	0.00	0.07*	0.03*	0.06	-		
Motivational Anxiety	-0.10*	0.03	-0.01	0.00	0.00	-0.42*	-	
Time Management Anxiety	0.02	-0.01	-0.05	-0.03	-0.06	-0.58*	0.49*	-

* p < .001

Hierarchical regression analysis was also conducted to determine the predictive power of participants' demographic characteristics, career adaptability, and optimism for classroom management anxiety. The relevant analysis results are presented in Table 5. Three models were established for this hierarchical regression analysis. For the communication anxiety sub-dimension of classroom management anxiety, demographic variables and the variable of willingly choosing the teaching profession explain 0.33% of the total variance alone and 0.82% of the total variance together with the CAOS score. For the motivation anxiety sub-dimension, demographic variables and the variable of willingly choosing the teaching profession explained 0.15% of the total variance alone and 0.64% of the total variance together with the CAOS score.

For the sub-dimension of time management anxiety, demographic vari-

Table 5

Hierarchical Regression Analysis Results on the Predictive Power of Career Adaptation and Optimism for Sub-Dimensions of Classroom Management Anxiety.

Step	Predictor	Model 1 Communication Anxiety		Model 2 Motivation Anxiety		Model 3 Time Management Anxiety	
		β	p	β	p	β	p
1	Gender	-0.038	0.46	-0.079	0.13	-0.029	0.58
	Department of Education	0.051	0.33	0.058	0.26	0.032	0.54
		$R = 0.164$, $R^2 = 0.027$, $F_{(2,364)} = 0.756$, $p > .05$		$R = 0.099$, $R^2 = 0.010$, $F_{(2,364)} = 1.808$, $p > .05$		$R = 0.044$, $R^2 = 0.002$, $F_{(2,364)} = 0.346$, $p > .05$	
2	Voluntarily Choosing the Teaching Profession	-0.050	0.00*	-0.067	0.00*	-0.088	0.16
	Belief in the Suitability of the Profession	-0.005	0.94	-0.006	0.92	-0.001	0.99
		$R= 0.183$, $R^2= 0.033$, $F_{(4,362)} = 0.633$, $p< 0.05$		$R =0.122$, $R^2= 0.015$, $F_{(4,362)} = 1.361$, $p< 0.05$		$R= 0.099$, $R^2= 0.010$, $F_{(4,362)} = 0.887$, $p > 0.05$	
3	CAOS	-0.028	0.00*	-0.035	0.00*	-0.066	0.23
		$R= 0.288$, $R^2= 0.082$, $F_{(5,361)} = 0.557$, $p< 0.05$		$R= 0.252$, $R^2= 0.064$, $F_{(5,361)} = 1.167$, $p< 0.05$		$R= 0.117$, $R^2= 0.014$, $F_{(5,361)} = 0.999$, $p > 0.05$	

* $p < 0.05$

ables explained 0.002% of the total variance alone; demographic variables, the variable of willingly choosing the teaching profession and considering teaching to be the right choice explained 0.010% of the total variance; and those variables in combination with the CAOS score explained 0.014% of the total variance. Model 1 and Model 2 are statistically significant for the communication anxiety and motivation anxiety sub-dimensions (R = 0.288, p < 0.05; R = 0.252, p < 0.05). For the communication anxiety sub-dimension, the CAOS contributed 0.51% to the explanation of total variance. For the motivation anxiety sub-dimension, the CAOS contributed 0.49% to the explanation of total variance.

Discussion of Results

In this study, relationships between pre-service teachers' career adaptability and optimism levels and their classroom management anxiety were examined. In addition to demographic variables, having willingly chosen the teaching profession and the belief that teaching was the right choice were also included in the analysis. A descriptive analysis was conducted first. The results of that analysis showed that the scores of the pre-service teachers for both the CAOS and CMAS were moderate. It was also observed that female pre-service teachers' career adaptability and optimism levels were higher than those of male pre-service teachers and their classroom management anxiety was lower.

The career adaptability of students helps them reduce their anxiety and enables them to experience fewer negative situations related to their professions (Skorikov & Vondracek, 2011). For this reason, it is possible to say that increasing an individual's career adaptability and optimism is effective in reducing classroom management anxiety. However, in the literature, different results have been reported regarding this situation according to the variable of gender. Erus and Zeren (2017) found no significant difference in career adaptability according to gender, while in the study conducted by Boo et al. (2021), female students were found to have higher anxiety about their careers. In the study of N Negru-Subtirica et al. (2015), it was seen that female students were more advantaged than male students in terms of career adaptability. Therefore, it is concluded that career adaptability and optimism and accordingly anxiety differ according to gender. The reason for the variability of career adaptability and optimism as well as anxiety by gender has been explained in the relevant literature by the fact that women often have stricter goal orientation.

According to Zhang (2010), females are more purposeful in their career planning than males. In addition, females are more active in social issues related to their professions and therefore have higher scores in terms of per-

sonal adaptability (Gutman & Schoon, 2012). For these reasons, it is natural to see gender differentiation in terms of career adaptability and anxiety, and Jahng and Kim (2021) defined gender as a mediating variable. Based on this, the gender variable can be directly added to models in different modelling studies that will deal with career adaptability and optimism together with classroom management anxiety.

Demographic variables were also taken into account in this study, which examined the relationship between participants' career adaptability and optimism and their classroom management anxiety. Accordingly, it was seen that the career adaptability and optimism of the participants studying in secondary education undergraduate programs were higher and their classroom management anxiety levels were lower. In Oral's (2012) study, no significant difference was observed in classroom management anxiety according to the department, while Önder and Öz (2018) showed that classroom management anxiety varied depending on whether the participants were enrolled in verbally focused or numerically focused departments. In the latter study, it was determined that students studying in verbally focused departments had less anxiety. When considered in terms of career adaptability and optimism, it is seen that participants studying in secondary education undergraduate programs have more positive viewpoints.

According to Zorver and Owen (2021) , this may be related to the career development of the participants. Career development is related to career adaptability, and participants' adaptability and optimism can be affected by their post-graduation planning (Arslan, 2002). It is possible to say that participants studying in secondary education undergraduate programs have better career planning. According to Tolentino et al. (2013), there is a positive relationship between career adaptability and adaptability and flexibility towards goal changes. In other words, when participants think that they can work in other sectors besides those specific to the undergraduate program they have graduated from, they adapt better to changes in goals and have more flexible thinking. Therefore, when the post-graduation appointment status of participants studying in secondary education undergraduate programs in the context of Turkey is evaluated, it is possible to say that their thoughts on finding jobs in other sectors are more intense. This may indicate that their career planning is more intense than that of students in basic education undergraduate programs.

In this study, it was seen that the scores of the participants who voluntarily chose the teaching profession were higher in terms of career adaptability and optimism and lower in terms of classroom management anxiety. These findings are supported by many similar studies in the literature (Boo et al., 2021; Gati et al., 2010; Jia et al., 2020; Vignoli, 2015; Xu et al., 2016). However,

in the present study, it was concluded that although career adaptability and optimism scores were high among those participants who believed they had chosen the right profession for themselves, classroom management anxiety was also high. According to Wang and Yan (2018), negative emotions such as anxiety are associated with career mismatch, and teacher educators need to develop strategies to help students cope with anxiety because anxiety is considered a threatening element in the professional context (Pouyaud et al., 2012). However, the form and direction of anxiety must be carefully considered. Persistent anxiety can negatively affect career adaptability and optimism, as well as lead to alienation from the profession. However, anxiety that is limited to specific situations can be eliminated more easily with different strategies (Shin & Lee, 2019).

In this study, the high career adaptability of participants who thought that teaching was the right profession may be associated with this point. However, it should be noted that participants who saw teaching as the right choice and who had high career adaptability and optimism also had high classroom management anxiety. It is possible to say that the career adaptability and optimism of these participants have not yet reached their peaks. In a study that spanned 2 years, Fiori et al. (2015) found that individuals with high career adaptability had less anxiety and less stress about their professions and therefore experienced more satisfaction with their professions. This shows that having sufficient levels of career adaptability and optimism helps individuals cope with negative feelings about their professions. However, in the present study, a conflict was identified for many participants. This may be associated with the lack of sufficient knowledge about classroom management or the lack of extensive internship experience despite good career adaptability and optimism. In the study conducted by Oral (2012) with pre-service teachers, it was seen that school experiences gave pre-service teachers some management skills and helped them reduce their anxiety about classroom management. Therefore, the lack of more extensive internship experience of participants in the present study can be emphasized.

In the hierarchical regression analysis conducted in this study, it was seen that communication and motivation anxiety, as sub-dimensions of classroom management anxiety, were predicted by demographic variables, choosing the teaching profession willingly, career adaptability, and optimism. This shows that career adaptability and optimism are strong predictors of classroom management anxiety. In many studies conducted on the career adaptability of pre-service teachers, it has been observed that career adaptability and optimism are associated with occupational variables. In the study conducted by Guan et al. (2013) with a group of Chinese pre-service teachers, a relationship was found between the pre-graduate status of pre-service teachers who were optimistic about their careers and their employment status after graduation.

Pre-service teachers with high adaptability and optimism towards their careers feel more confident about their jobs, which increases their employment rate. Pre-service teachers who willingly choose the teaching profession are accordingly more optimistic about their careers (Germeijs & Verschueren, 2007), which helps reduce their anxiety by increasing their adaptability. Therefore, the participants' willing choice of this profession and their harmony and optimism towards the profession helped them overcome the difficulties that they encountered in their work.

Limitations and Recommendations

Although the relationships between classroom management anxiety and both career adaptability and optimism have been revealed in this study, this research has some limitations, and the obtained findings must be evaluated in light of those limitations. First, this study entailed an analysis process designed to address the relationships between career adaptability and optimism and classroom management anxiety while including some variables in the process. Although the results obtained here are supported by a conceptual framework, follow-up studies are still needed because the relationships between both career adaptability and optimism and classroom management anxiety have been addressed here for the first time. Intermediary models could be established to further test the present results.

In addition, the reasons for the classroom management anxiety of the pre-service teachers could not be fully explained in this study. In this context, taking into account the relevant literature, intervention studies could be carried out to eliminate classroom management anxiety and evaluate its relationship with career adaptability and optimism in more depth. Considering that there is not a large volume of literature on classroom management anxiety, the possible relationship of classroom management anxiety with similar types of anxiety, such as career anxiety, could be tested. With such studies, more information about pre-professional adjustment and anxiety levels of pre-service teachers would be obtained.

Finally, only fourth-year undergraduate students took part in the present study. Therefore, the relationships between career adaptability and optimism and classroom management anxiety may be found to be different in future longitudinal studies or studies conducted with pre-service teachers at different grade levels.

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