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TEACHER EDUCATION & DEVELOPMENT | RESEARCH ARTICLE

The motivational factors affecting the preference of teaching profession in Turkey

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Abstract: The purpose of this study was to reveal the reasons why teacher candidates attending the faculties of education have preferred the teaching profession and the explanatory relations between those reasons. To this end, 801 students who are attending the elementary school teaching departments of 6 state universities were included in the research. Mercenary, altruistic, intrinsic, and extrinsic reasons that are effective with preferring the teaching profession are the latent variables of the research. The model developed to verify the relationships between those variables was tested. According to the findings, the intrinsic and altruistic latent variables have a highly positive relationship. The extrinsic variable has a negatively significant relationship with the intrinsic and altruistic variables, while a positively significant relationship with the mercenary variable. The mercenary latent variable has a positively significant relationship with all other variables.

Subjects: Education Studies; Higher Education; Teacher Training

Keywords: motivational factors; altruistic; intrinsic; extrinsic; mercenary; teaching profession; SEM

1. Introduction

Choice of occupation is a process with which individuals encounter once or for multiple times in their lives and that results in quite important consequences. This process starts in childhood for some people, being continued resolutely in later years and concluded. For some, it is a process that should be decided right away due to opportunities or obligations which occur suddenly. Especially in Turkey, by which factors students, who enroll in undergraduate programs in which they have been places

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PUBLIC INTEREST STATEMENT

Why people choose their jobs as their career? Of course there are many reasons from their own opinions about that. Sometimes love or desire, sometimes necessity or other people's guidance. But teaching is maybe different from other jobs. Because teacher's performance in the classroom can determine how much a student will learn so the expectations from them in many societies are higher than other jobs. With these high expectations, motivational factors had to become important conditions for teaching. Many researches argue that there are many factors which affect choosing teaching profession as a career. In this paper, we discussed that is there any relation between these factors or not and why our teacher candidates choose teaching profession as a career in Turkey.

according to certain criteria, are guided toward these programs has been the subject of many re-searches. The teaching profession has been examined within this context and studies have been accordingly performed. Studies have been conducted on the reasons why students of mathematics teaching (Tataroğlu, Özgen, & Alkan, 2011), classroom teaching (Çermik, Doğan, & Şahin, 2010; Şara & Kocabaş, 2012), chemistry and mathematics teaching (Boz & Boz, 2008), physics teaching (Erdemir, 2010), secondary school science, and mathematics teaching (Hacıömeroğlu & Taşkın, 2009) have chosen the teaching profession.

In the literature, the motivational factors that are effective with preferring the teaching profession are generally defined as variables such as intrinsic, extrinsic, altruistic (Kyriacou & Coulthard, 2000; Saban, 2003; Thomson, Turner, & Nietfeld, 2012; Yong, 1995), and mercenary (Çermik et al., 2010). The intrinsic processes are some of the elements affecting the preference of the teaching profession. Intrinsic processes involve using the specialization and knowledge about teaching such as being interested in teaching as an occupation and enjoying teaching, in other words, dimensions related to the very nature of the teaching profession (Kyriacou & Coulthard, 2000). The extrinsic reasons for choosing profession are reasons which are not in relation with the nature of the profession such as long holidays, recognition of the profession within society (Kyriacou & Coulthard, 2000; Saban, 2003), job guarantee, and social security (Çermik et al., 2010). Another factor emphasized for the prefer-ence of teaching profession is altruistic reasons. It is possible to list the altruistic reasons in generally as devotion-based reasons like serving people, benefiting the society, serving the country (Boz & Boz, 2008; Çermik et al., 2010; Knell & Castro, 2014), the desire to share knowledge with children, setting a role model for them and making difference in their lives (Saban, 2003). Çermik et al. (2010) state in addition to the above-mentioned reasons that there is another "mercenary" reason. The factors shaping the mercenary reasons include the desire of a regular job, the idea that the job is appropri-ate for individual's gender, job's stress level, convenience of conditions, whether the job is under state assurance, easiness to learn the job, etc. (Çermik et al., 2010).

The interrelationships of reasons affecting the preference of teaching profession are also very important. Because the process of choosing the teaching profession has a multidimensional struc-ture (Çermik et al., 2010). Different findings have been encountered in studies aiming to explore that structure. Boz and Boz (2008) suggest that intrinsic and extrinsic reasons are more effective with choosing the teaching profession than other reasons. According to the findings of Çermik et al. (2010), mercenary and extrinsic factors are more dominant than intrinsic and altruistic factors in preferring the profession. Erdemir (2010) listed the reasons why physics teacher candidates have preferred the profession from the most effective one to the least effective one and concluded that the order is individual's own desire, job security, teacher and family influence, error of preference, and friend influence. Hacıömeroğlu and Taşkın (2009) stated in their study that most of the teacher candidates have chosen the teaching profession because they both love teaching and children and think that teaching is a respectable profession. However, it is difficult to evaluate the factors affect-ing the choice of the profession independently from the socioeconomic, cultural, and political cir-cumstances of the country (Kılınç, Watt, & Richardson, 2012). On the other hand, individuals' positive experiences concerning the act of helping and teaching others encourage them to take responsibil-ity in this subject in terms of preferring the teaching profession (Richardson & Watt, 2005). Countries' idiosyncratic properties and the association of gender occupation in the social memory may even affect individuals in choosing an occupation (Çermik et al., 2010) and their teaching motivations (Klassen, Al-Dhafri, Hannok, & Betts, 2011). Thus, the factors that are effective with choosing the teaching profession need to be examined by reasons which occur within the society. Indeed, major-ity of teachers in Turkey are employed by the Ministry of National Education in state schools. This employment is generally not contractual but on the level of state official other than during excep-tional periods. This also means job security for teachers.

From this point of view, in addition to the intrinsic, extrinsic, and altruistic reasons which received the greatest emphasis, it is important to know what kind of a change the "mercenary" factor, which was revealed by Çermik et al. (2010) as the fourth dimension in Turkey, engages in with other

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dimensions. Therefore, this study aims at investigating the level of relational structure between intrinsic, extrinsic, altruistic, and mercenary latent variables which are effective with the preference of teaching profession and confirm that relational structure as a model.

2. Method

The research was conducted with the analysis of the factors effective with teacher candidates' preference of teaching profession and their interrelationships through the structural equation model (SEM). SEM is an extensive, statistical technique that is used for testing the models which include causative and correlational relations between variables by hypotheses produced depending on a theoretical basis (Anagün, 2011; Haşlaman & Aşkar, 2007; Yılmaz, Çelik, & Ekiz, 2006). When it is considered that factors affecting the preference of teaching profession cannot be directly measured, it is necessary to measure certain variables that define or are thought to be defining them so that the interrelationships of those variables can be explained. Since SEM facilitates using latent variables and can calculate the values of predicted variables more reliably (Şimşek, 2007), it was preferred as the analyzing method in the research. The acceptance range of the most used criteria in the evaluation of SEM's convenience is as follows in Table 1 (Schermelleh-Engel & Moosbrugger, 2003, p. 52).

2.1. Research sample

The sample of the research is composed of 801 teacher candidates (55.1% females, 44.9% males). The sample comprises teacher candidates studying at the elementary school teaching departments of six different universities (Düzce, Gazi, Afyon Kocatepe, Kars Kafkas, Atatürk, and Erzincan) in Turkey. In this research, authors collected the data at first hand so for sampling "convenience sampling" was used. Because it allows to select subjects by availability (McIntyre, 2005, p. 106).

2.2. Data collection tool

To determine the reasons why the teacher candidates have preferred the teaching profession, a 5-point Likert-type scale was used within the scope of the research; the scale is within the range from "strongly agree" (awarded 5 points) to "strongly disagree" (awarded 1 points). The scale items were obtained from the study performed by Çermik et al. (2010). In original paper at Çermik et al. (2010) states that their study is a descriptive study conducted with a qualitative basis. They ask teacher candidates that why they choose teaching profession as a career and analyze their opinions. These opinions are maybe best important and suitable data for construct a scale about this topic. So in this research, the authors constructed the scale to understand the relationships between the factors stated in Çermik et al. (2010)'s paper. For this purpose, firstly all 32 items from Çermik et al. (2010) taken and constructed a scale. Then for validity of scale, expert opinions asked six colleagues who study on teacher education. After expert's suggestions, two items were deleted because of language mistake and incomprehensible structure. Also items No. *e1*, *e2*, *m8*, *a12*, *e16*, *e19*, *e21*, and *m29* were removed from the model. The items in the scale reveal the factors affecting the choice of profession for teacher candidates as four sub-dimensions—extrinsic, intrinsic, mercenary, and altruistic. The items forming those dimensions, means, standard deviations, and factor loadings of items after CFA, Cronbach's Alpha, kurtosis, and skewness values for each sub-dimension are presented in Table 2.

Table 1. Evaluation of SEM fit

Goodness-of-fit indicator	Good fit	Acceptable fit
p-value	.05 < *p* ≤ 1.00	.01 < *p* ≤ .05
RMSEA	0 ≤ RMSEA ≤ .05	.05 < RMSEA ≤ .08
SRMR	0 ≤ SRMR ≤ .05	.05 < SRMR ≤ .10
NFI	.95 ≤ NFI ≤ 1.00	.90 ≤ NFI < .95
CFI	.97 ≤ CFI ≤ 1.00	.95 ≤ CFI < .97
GFI	.95 ≤ GFI ≤ 1.00	.90 ≤ GFI < .95
AGFI	.90 ≤ AGFI ≤ 1.00	.85 ≤ AGFI < .90

Notes: AGFI = Adjusted Goodness-of-Fit-Index, CFI = Comparative Fit Index, GFI = Goodness-of-Fit Index, NFI = Normed Fit Index, RMSEA = Root Mean Square Error of Approximation, SRMR = Standardized Root Mean Square Residual.

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Table 2. Item codes, factor loadings, and cronbach's alpha values motivational factors							
Factors	Item code	Mean	Std. deviation	Factor loading	Cronbach's α	Skewness	Kurtosis
Intrinsic	i7	3.51	1.208	.68	.767	−.555	−.557
	i13	3.26	1.330	.42		−.242	−1.075
	i14	3.46	1.190	.65		−.539	−.527
	i15	2.96	1.203	.25		−.008	−.979
	i17	3.70	1.177	.83		−.750	−.283
	i18	3.18	1.191	.31		−.208	−.861
	i23	3.75	1.172	.79		−.726	−.388
Extrinsic	e3	2.67	1.293	.20	.694	.159	−1.235
	e24	2.64	1.387	.67		.390	−1.110
	e26	2.70	1.283	.31		.173	−1.165
Mercenary	m4	2.52	1.207	.26	.633	.327	−1.006
	m5	1.93	1.193	.14		1.196	.331
	m6	3.41	1.251	.71		−.525	−.762
	m9	3.77	1.126	.64		−.928	.159
	m11	2.58	1.224	.19		.364	−.934
	m20	3.33	1.293	.69		−.376	−.966
Altruistic	a10	3.85	1.075	.65	.719	−.888	.278
	a22	3.96	1.155	.70		−1.100	.415
	a25	3.66	1.195	.47		−.678	−.469
	a27	3.07	1.256	.26		−.128	−.996
	a28	3.10	1.235	.36		−.158	−.998
	a30	3.53	1.264	.69		−.535	−.736

2.3. Analysis of data

The data in the research were obtained with Spss and Lisrel software packages. First, with SPSS descriptive statistics for data-set performed. Next, confirmatory factor analyses (CFA) were conducted with the Lisrel software package to identify the interrelationships of the factors affecting the preference of teaching profession through the structural equation model. In CFA analyses, Maximum Likelihood was used as estimation method and RMSEA were reported with 90% Confidence Interval.

3. Findings

Within the scope of the research, the items concerning the factors that affect the choice of profession for teacher candidates were selected, descriptive tests were performed to determine descriptive statistics for items and the results are given in Table 2.

As seen at Table 2, reliability scores of sub-dimensions (.767 for intrinsic, .694 for extrinsic, .633 for mercenary, and .719 for altruistic) are in confidential range. Also skewness and kurtosis values show that distribution of data-set for each item is normal Figure 1.

The model to be used for the research was determined as follows after general statistics:

After deciding the measurement model, the factors affecting the preference of teacher profession were modeled and the confirmatory factor analysis was performed. However, it is necessary to test each measuring model before starting the analysis in the modeling studies to be performed with latent variables (Byrne, 2009; Şimşek, 2007). To do that, the test for measuring models should be similar to the one for the confirmatory factor analysis, and no unconfirmed measuring model should
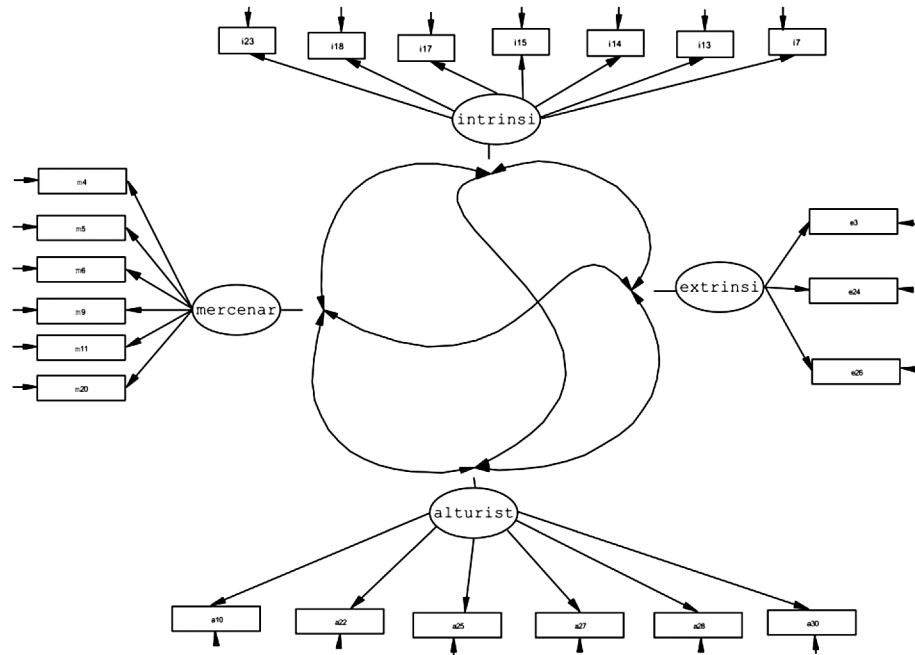
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Figure 1. Measurement model.

Table 3. The Goodness-of-fit values for the motivational factors						
Factors	**AGFI**	**GFI**	**NFI**	**CFI**	**RMSEA**	**SRMR**
Intrinsic	.97	.99	.98	.99	.048	.060
Extrinsic	1.00	1.00	1.00	1.00	.000	.000
Mercenary	.89	.92	.93	.95	.078	.086
Altruistic	.99	.99	.99	1.00	.029	.042

be included in the measurement model (Çokluk, Şekercioğlu, & Büyüköztürk, 2012). Thus, each latent variables used in the research was tested separately and its fitness for the measurement model was controlled within the framework of fit criteria given in Table 1. The goodness of fit values for each factor are given Table 3. Also 90% Confidence Intervals for RMSEA are separately (.044; .052) for intrinsic, (.000) for extrinsic, (.074; .082) for mercenary, and lastly (.025; .033) for altruistic.

According to Table 3, it is seen that the goodness of fit values of the measuring models for the latent variables thought to be used in the model, "intrinsic" ($X^2 = 26.62$ and $df = 14$), "extrinsic" ($X^2 = 0$ and $df = 0$), and "altruistic" ($X^2 = 10.82$ and $df = 9$) factors, are within the good fit limits compared to the criteria in Table 1 and the "mercenary" ($X^2 = 21.54$ and $df = 9$) factor has an acceptable fit and can be used in the measurement model comfortably.

3.1. Results of the measurement model test
In the second phase of the research, the measurement model defined was tested so that the relationships between the factors which are thought to be effective with the preference of teaching profession. As a result of testing the measurement model, it was found to be $X^2 = 1072.08$ and $p = .000$, and the goodness of fit values are given in Table 4. Also 90% Confidence Interval for RMSEA before modification is (.069; .077).

According to Table 4, the goodness of fit values of the measurement model are acceptable. The adjustment index was looked into to increase measurement model's goodness of fit, and the errors across the items theoretically fitter were associated in accordance with the suggestion of the

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Table 4. Goodness-of-fit values for the measurement mode					
AGFI	**GFI**	**NFI**	**CFI**	**RMSEA**	**SRMR**
.86	.89	.90	.92	.073	.089

software. These indices make suggestions about loosening certain model parameters in order to improve the overall model fit (Albright, 2006). To this end, the errors were associated for the items *i13* and *i15*, *e3* and *e26*, *a22* and *a25*, *m4* and *m5*, and finally *m5* and *m11*, respectively, which are under the same factor. After these associations, the model was retested. As a result of retesting the measurement model, it was found to be $X^2 = 559.38$ and $p = 0.000$, and the final goodness of fit values are given in Table 5. Also, 90% Confidence Interval for RMSEA after modification is (.043; .053).

According to Table 5, perfect fit was secured in accordance with the goodness of fit values. These values show that the measurement model is within the appropriate range for the goodness of fit criteria (Table 1), therefore it has a perfect level of goodness of fit, and the model established is valid for the whole data-set. The *t* values for research's measurement model are given in Figure 2.

When one looks at Figure 2, all *t* values are significant on the level of .01. The standardized values for research's measurement model are given in Figure 3.

According to the measurement model, the relation coefficients between the factors affecting the preference of teaching profession were found to be as follows in Table 6:
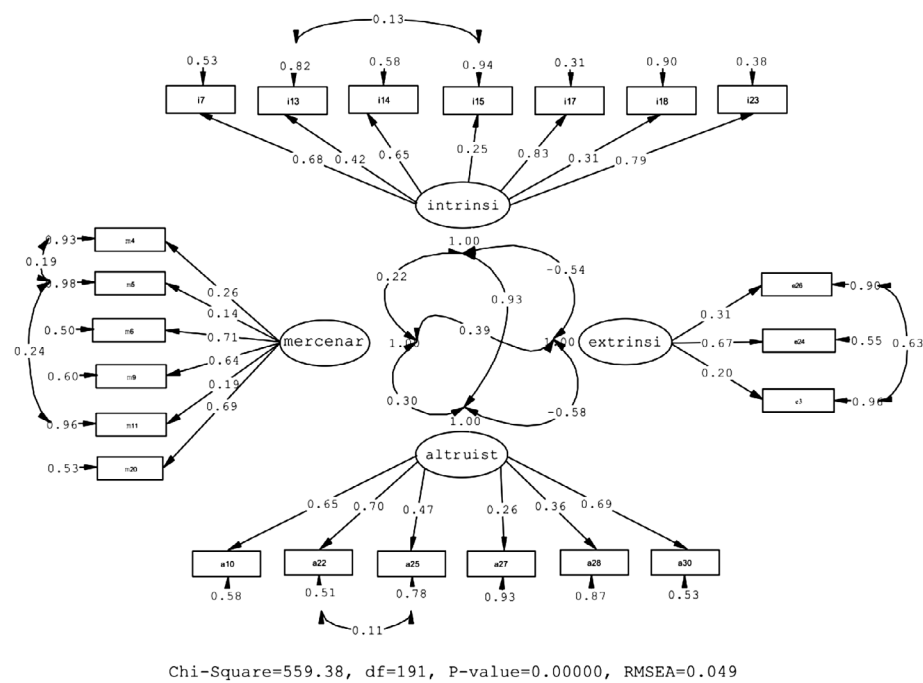
Table 5. Goodness-of-fit values for the measurement model after modification					
AGFI	**GFI**	**NFI**	**CFI**	**RMSEA**	**SRMR**
.92	.94	.95	.96	.049	.062

Figure 2. *t* values for the measurement model subject to the research.

Chi-Square=559.38, df=191, P-value=0.00000, RMSEA=0.049

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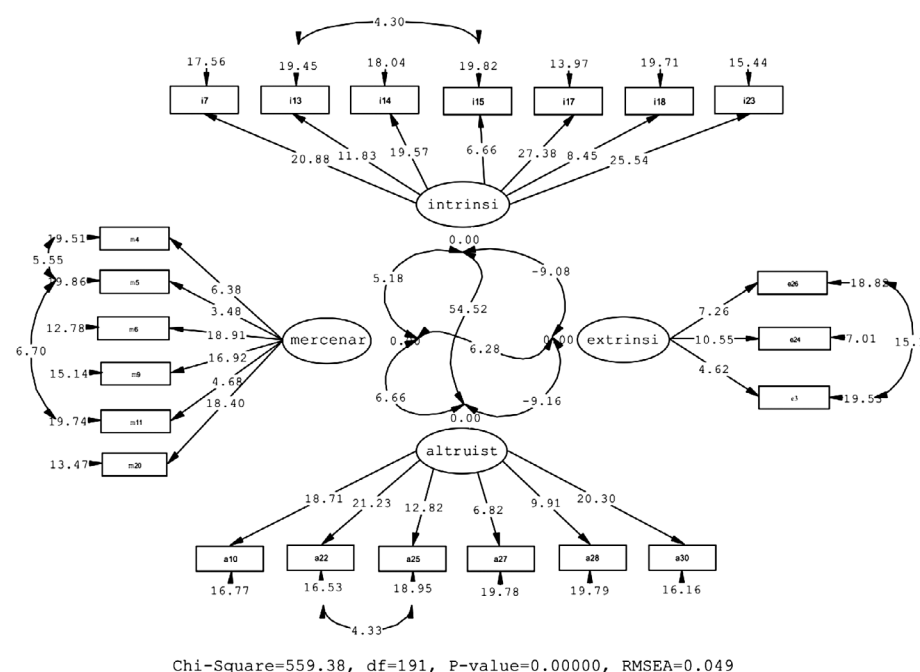
Figure 3. Standardized values for measurement model.

Chi-Square=559.38, df=191, P-value=0.00000, RMSEA=0.049

Table 6. Correlation coefficients between motivational factors			
Factors	Extrinsic	Altruistic	Mercenary
Intrinsic	−.54	.93	.22
Extrinsic		−.58	.39
Altruistic			.30

4. Conclusion and discussion

It was aimed with this study to explain the factors affecting the preference of teaching profession and reveal the relational structural between them. To this end, first-order confirmatory factor analysis was performed with the intrinsic, extrinsic, altruistic, and mercenary factors which are the latent variables of the research. According to the results of analysis, variables of the intrinsic and extrinsic factors have different influences on the choice of profession. It is possible to say that the latent variables which have the greatest effect on the choice of profession are the altruistic and intrinsic variables. On the other hand, the mercenary variable has a weak influence. These data support the finding achieved by Hacıömeroğlu and Taşkın (2009) that it is an important factor to love teaching and children as well as the prestige of the profession itself.

In consideration of the data from the measurement model in which the interrelationship of the latent variables were released, it was seen that the intrinsic and extrinsic factors have an impact across the motivational processes which are effective with the preference of teaching profession. These processes, however, are contradictional. In other words, the higher one of the intrinsic and extrinsic motivational factors is, the lower the other one gets in the candidates. In the study by Thomson et al. (2012), similar results were obtained and it was revealed that both motivational factors are contradictional. Similarly, a negative relationship was found between the altruistic variable and the extrinsic variable. In general, it can be argued that the reason why the altruistic/intrinsic and extrinsic factors have a negative relationship is the factors triggering the related processes and serving individual's purpose. Indeed, as stated by Knell and Castro (2014), this is different from other reasons resulting other motivational elements. Whereas the intrinsic variable is rooted rather in personal values, the extrinsic variable consists of choices such as long holidays.

Another finding obtained from the research is the positive and high-level relationship between the intrinsic and altruistic factors. The value taken by this relationship is the highest among the latent variables in the model. Khajavy, Ghonsooly, and Hosseini Fatemi (2016) and Wong, Tang, and Cheng (2014) reported that altruistic and intrinsic factors have high positive correlation. Also, Wong et al. (2014) states these are the strongest factors that attract teacher candidates to teaching profession. According to Yong (1995), these two variables are the factors serving the individual to actualize his/her desires and requests willingly. However, the extrinsic variable is under the influence of data coming externally by its nature, and the individual may give up on his/her purpose. The fact that the intrinsic and altruistic reasons stem from the attitudes and motivations of the individual can explain the positive and high-level relationship exhibited by these two variables. According to Boz and Boz (2008), those who preferred the teaching profession under the influence of these two variables have been observed to be more willing and enthusiastic as well as continuing the profession for longer periods.

Another finding obtained from the research is that the altruistic and mercenary variables have a positive and significant relationship. Similarly, the intrinsic and mercenary variable exhibits a significant and positive relationship with the mercenary variable. In the study by Çermik et al. (2010), there have been changes in teacher candidates' reasons for choosing the profession. It is stated, however, that the most resistant variable to the changes is the mercenary variable. From this point of view, it can be said that the mercenary variables are composed of decisions taken as a result of certain conscious evaluations away from emotions. In other words, there is a benefit/loss relation in the preference by the mercenary variable, and the individual can make a full evaluation when deciding. The mercenary variable is also in a significant and positive relationship with the extrinsic variable.

There are a few limitations to the research. First of all, this study was conducted only with the students who are attending the elementary departments of the universities. Similar studies with other departments through the same measurement tool should provide clearer data for identifying the factors of choosing the teaching profession. Another limitation is the way of sampling. The convenience sampling method was used due to its advantage of accessing the data easily and rapidly. Yet, the data obtained with this method have the risk of bias because the observations included in the sample are not randomly selected, and it is wrong to generalize it into the whole population. Hence, the generalizability of the research is limited to the elementary departments of the universities where the research was conducted. It can be recommended to conduct a similar research with the samples in which the observations were randomly selected through the same measurement tool for more generalizable results.

According to the research results, the mercenary variable and all other variables have a significant and positive relationship. The mercenary variable can also be a variable complementary for other variables. Studies need to be conducted to reveal the direction of the relationship between the variables so that this situation is brought to light. Indeed, knowing the causative relation between the variables is thought to be contributing to the development of new models on the factors of preference.

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