

The Effect of Student Teachers' Liking of Children and Empathic Tendency on the Attitudes of Teaching Profession

By

Kazim Celik¹, Emel Saritas², Gulsum Catalbas³

Abstract

In this study, it was aimed to analyze the effect of student teachers' liking of children and empathic tendencies on the attitudes of teaching profession in terms of gender, and willingness of students while going into their profession. The study was designed in relational screening model. To analyze the data, Binary Logistic Regression was applied. For study, we got in contact with 399 students, and the data of 376 students were taken into consideration. To collect the data, three instruments were used. We used Barnett's Liking of Children Scale to determine the children liking levels of student teachers, the Toronto Empathy Questionnaire to assess empathic tendencies, and the Attitude Scale of Teaching Profession to determine the attitudes of student teachers toward teaching profession. As a result of the study, children liking levels (1.065 times), empathic tendency levels (1.086 times), and willingness to choose this profession (12.65 times) has a positive effect on the attitudes of student teachers toward teaching profession. On the other hand, gender was not a significant variable for the attitudes toward teaching profession. At every stage, children liking, empathic tendency, and willingness to choose teaching profession should be analyzed and these variables should be ranked as entrance criteria.

Keywords: *Liking children, Attitudes toward teaching profession, Empathy, Logistic Regression*

1. Introduction

Recent changes in technology and science conduce to rapid changes in structure of society, institutions and professions. Teachers have an important role on individuals to adapt these changes and contribute to the society. It is envisaged that technological and scientific developments will change the qualities of teaching profession, and the significance of teaching profession will increase gradually. The teaching dating back to the first days of humanity revealed teaching profession with the growth of social collaboration (Celik, 2010:236). It was discussed for a long time if the teaching is a profession or not (Ryan & Cooper 1972; Duke 1990; Sadker & Sadker 2000, Sahin 2006). The discussions still continue at least in Turkey. However, there is a consensus that teaching profession has its unique style and qualifications necessary for a profession, and it has made a process in professionalization (Celik, 2010:236).

Teachers are entrusted with the task of ensuring children's intellectual growth and preparing each new generation to meet the challenge of the future (Hargreaves 2009, 218). Teachers not only make use of their technical knowledge and skills but also benefit from their internal sources such as senses, foresights, past experiences, and life philosophies. They utilize cognitive processes in addition to affective processes (Sahin, 2006: 282-284).

Demirel (2006) groups a good teacher's qualifications in two main categories as personal and professional qualifications. The personal qualifications of a teacher include motivating, success-oriented, and professionalism. The professional qualifications of a teacher are planning instructional activities, making use of instructional methods and techniques, communicating effectively, managing classroom, using the time effectively, evaluating students, and guiding students. Furthermore, Cruickshank (1995), in

¹ **Corresponding Author**, PhD, Pamukkale University, Faculty of Edu., Denizli, Turkey. kazimcelik@gmail.com

² PhD, Pamukkale University, Faculty of Education. Denizli, Turkey.

³ Lecturer, Pamukkale University, Faculty of Education. Denizli, Turkey.

his classification, expects from a teacher some qualifications like willingness, motivating, systematic, flexibility, and knowledgeable. A teacher's professional qualifications are given as having student attention, variability, using the time effectively, asking questions, teaching perspicuously, tracing student development, and giving feedback and reinforcement.

The personal and professional qualifications of teachers have an important role for increasing the effectiveness and performance. These qualifications might arouse anxiety, fear and alienation while they might lead to liking, respect and intimacy. The one important discrimination between teaching profession and the others is its scope of work, people. Teaching requires liking people and being patient and devoted (Helvacı, 2009). According to Oktay (1991), it is a must for all teachers to be patient, knowledgeable, tolerant, and devoted to their job. Gelbal & Duyan (2010) consider "liking" children as one of the primary teaching qualification. It can be said it is not possible to be successful for teachers who do not like children and cannot communicate with their colleagues. Teachers should not bring their problems to school and classroom. For a successful instruction, it is crucial to provide a motivating environment, and like children (Lasley, 1980; Veenman, 1984). Ergun & Ozdas (1999) states that people who do not like children and teaching should not be teachers as liking children and taking care of them help solving discipline problems and giving a lecture entertainingly. When students feel that target behaviors are intended to compensate for their essential requirements such as surviving, liking, power, freedom or entertainment, they participate in the instruction process without any resistance (Sahin, 2006, 282).

Why people prefer teaching process particularly is of importance. In Eskicumali's study (2002), one of the most significant three reasons to choose teaching profession is given as liking children (23%). Eight out of the ten study carried out in the USA indicate that liking and taking care of children is one of the three important factors to be teachers (Ergun, 1999). Marso & Pigge (1994), in their study on student teachers, determine liking to work with children is the most important variable to be teacher. Downing, Ryndak & Clark conclude following qualifications to be a teacher: liking and communicating with children and adults, being patient, interested, kind and flexible.

The success of teachers is based on both liking students and communicating with them well. Good communication skills are directly related to understanding people, meeting expectations, and feeling empathy (Kilic, 2005: 2). Rogers has defined empathy in different ways, and his definition in 1970s becomes a common definition. According to this flexible definition, empathy is the ability to perceive the internal frame of reference of another with accuracy and with the emotional components and meanings, and to transfer this situation to that person (Dokmen, 2005).

Empathic understanding and positive views regarding human nature are among the most basic characteristics for individuals (Rogers, 1975). Teaching empathy refers to the ability to look at the situations from students' perspectives, and feel students' anxiety (Tetegah, Anderson, 2007). According to Cooper (2002), the teachers who cannot show empathy to their students give rise to loss of motivation by focusing on whole group, subject and program instead of considering emotions of students. In the schools, students feel close with their teachers and trust on them when they realized emphatic skills of their teachers (Kuzgun, 2000).

There could be found many studies regarding empathic tendencies of student teachers. In these studies, empathic tendencies of student teachers were analyzed in terms of the variables such as democratic attitude, communication skill, gender and their majors. In some studies Alver (1998), Genc & Kalafat (2008), Kolayıs & Yigiter (2010), and Karatas (2012) carried out for different occupational groups and candidates of these occupational groups, there is no statistically significant relationship between the empathetic skills of female and male groups. Furthermore, Aydin (1996), Karakaya (2001), Duru (2002), Ozturk et al. (2004), Toussaint & Webb (2005), Uygun (2006), Ekinci (2009), Turnage, Hong, Stevenson & Edwards (2012) found a significant difference for empathic tendency levels on behalf of females.

It can be said that liking children of student teachers and empathetic tendencies are two important variables having an effect on attitudes toward teaching. In the field, there are a host of studies (Semerci & Semerci, 1999; Erkus et al., 2000; Oral, 2004; Ustun, Erkan & Akman, 2004; Senel et al. 2004; Cakir, 2005; Simsek, 2005; Oguz & Topkaya, 2008; Pehlivan, 2008) analyzing attitudes toward teaching profession with various variables in different sample groups. However, there could not be found a study both analyzing liking children and empathetic tendencies on attitudes toward teaching in the same time, and showing these variables as risk factors.

The purpose of this study is to analyze the effect of student teachers' liking of children and empathic tendencies on the attitudes of teaching profession in terms of gender, and willingness of students while going into their profession. It also accounts for this effect as risk factors.

2. Method

The study was designed in relational screening model. Relational screening models aim to determine existence of significance between two or more variables, and degree of this existence (Karasar, 2005).

Participants

The study group was the senior student teachers who study at the Education Faculty of Pamukkale University and finish their practicum. The population for this study was 1079, and the study group was comprised of 396 students. The data of 7 students came across on median, 6 students did not fill in the questionnaire completely, and the values of 7 students were extreme. In this sense, these data were excluded from the analysis, and the data of 376 students were considered for this study. The study group consisted of 236 (62%) female and 140 (38%) male students. 84% (314) of the student teachers stated that they chose teaching profession willingly. However, 16% (62) of the student teachers were did not choose teaching profession willingly.

Instruments

In this study, three different instruments were used to collect the data. We used Barnett's Liking of Children Scale (Duyan & Gelbal, 2008) to determine the children liking levels of student teachers, the Toronto Empathy Questionnaire (Totan, Sapmaz & Dogan, 2011) to assess empathic tendencies, and the Attitude Scale of Teaching Profession (Ustuner, 2006) to determine the attitudes of student teachers toward teaching profession. The number of the variables was limited in order not to increase standard error.

Barnett's Liking of Children Scale

Barnett's Liking of Children Scale was developed by Barnett & Sinisi to measure the attitudes of people to children. Duyan & Gelbal (2008) studied on reliability and validity of the scale in Turkey and they found test re-test reliability as 0.854 and internal validity of the scale as .88. There are 14 items in the scale ranging from "I never agree" to "I agree completely" on 7-point likert type scale. 4 of the items are negative (items 3,6,10 and 13), and 10 items are positive. While assessing the positive items, "I agree completely" answer is marked as "7" and "I never agree" answer is marked as "1". For the negative items, "I agree completely" answer is marked as "1" and "I never agree" answer is marked as "7". As the result of the scale, high scores can be interpreted as people like children more, and low scores can be interpreted that their liking of children is low.

The Toronto Empathy Questionnaire

The Toronto Empathy Questionnaire was developed by Spreng et al. (2009) to assess empathy. The questionnaire was adapted into Turkish by Totan, Dogan & Sapmaz (2012), and its internal validity was computed as .79 (Cronbach's alpha). In this study, the internal validity was found as .82.

There are 13 items in the questionnaire and the participants are expected to express their opinions in the questionnaire ranging from “Never” to “Always” on 5-point likert type scale. While assessing the items, “Never” answer was marked as “1” and “Always” answer was marked as “5”. The high scores accounts for high empathy.

The Attitude Scale of Teaching Profession

This scale developed by Ustuner (2006) aims to determine the attitudes of the university students toward teaching profession. The scale consists of 34 items. Individuals are expected to express their views ranging from “I never agree” to “I completely agree”. While assessing the items, “I never agree” answer was marked as “1” and “I completely agree” answer was marked as “5”. The internal validity of the scale is .93 (Cronbach’s alpha). In this study, the internal validity was found as .95 (Cronbach’s alpha) for student teachers. The high scores indicate positive attitude toward teaching profession. To categorize attitude toward teaching, dependent variable of this study, a median was determined, and the scores above the median was accepted high attitude while the scores below the median referred to low attitude. In this sense, 7 of the data were excluded as they were on the median point.

Data Analysis

Binary logistic regression was applied on the data obtained from the student teachers in this study. Recently, logistic regression has become a widespread analysis in social sciences. In most of the socio-economic studies introducing cause and effect relationship, the data can have only two possible types such as positive-negative, successful-unsuccessful, yes-no, glad-not glad, and true-false. Logistical regression is used to analyze cause and effect relationship between dependent and independent variables when there are two or more categories (Agresti, 2007: 103).

The main goal of logistic regression is to find the best fitting and reasonable model to describe the relationship between an outcome variable and a set of independent variables (Hosmer & Lemeshov, 2000). With logistic regression, risk factors are estimated by calculating the probability of the effects of independent variables on dependent variables (Ozdamar, 2002: 623). Like linear regression, an expected value is tried to be predicted based on the values of some variables. However, there are three important differences between these two models (Coskun et al., 2004: 43):

Linear regression is used for predicting continuous dependent variable; however, dependent variable should be binary for logistic regression. (2) In linear regression analysis, the value of dependent variable is predicted while logical regression is expressed as likelihood of the value of a dependent variable. (3) While independent variables are expected to show a multivariate normal distribution in linear regression analysis, there is no prerequisite about the distribution of independent variables in order to apply logistic regression.

A median split was used to turn a dependent variable, attitude toward teaching profession, into a categorical one. In this sense, the median of the data set was found (143), and the scores below the median were categorized as (0) low while the scores above the median were categorized as (1) high. From independent values, the variable of the willingness to go into the profession was categorized as (0) willing and (1) unwilling, and gender was coded as (0) female and (1) male. The data of empathic tendency questionnaire and liking children scale were processed directly as they are continuous variables.

3. Results

The results of logistic regression analysis which was designated to determine the factors having an effect on teaching attitude of student teachers were given below.

In logistic regression, the goodness of fit should be tested to describe how well it fits a set of observations. It is a need to be aware of to what extent dependent variable is effective. For this reason, the goodness of fit should be applied (Murat & Isigicok, 2007).

In logistic model, there is no limitation as normality assumption, and t and F table values are not used to compare something in goodness of fits tests as in the other multivariate tests. In this sense, the standards of χ^2 and G2, the most simple nonparametric ones, were used (Murat, 2006). The goodness of fit for the model indicates a standard of the best model to account for the dependent variable.

Based on the observed and expected frequencies, Hosmer-Lemeshow (H-L) test was applied in order to test goodness of fit, and it was calculated through "H0: The model is a good fitting model" and "H1: The model is not a fitting model" hypotheses. χ^2 results of H-L test were given in Table 2. In addition to Hosmer-Lemeshow test, the classification table was also used to determine the goodness of fit for the model.

Table 1 The Results of Goodness-of-Fit Tests

Method	Chi-square (χ^2)	df	Sig. (p)
Hosmer and Lemeshow	12,956	8	.113

As a result of Hosmer Lemeshow test predicting the goodness of fit; it was found as 8 degree of freedom, and 12.956 for chi-square value. As $p = .113 > \alpha = 0,05$ value was obtained from the results, and "H0 hypothesis" was confirmed, statistical works were executed. In other words, independent variables in the analysis were sufficient to account for dependent variable.

The correct classification rate can also be used to test the goodness of fit for logistic regression model. For this reason, classification tables are utilized. These tables are the results of the cross-classification of observed and expected values. To make classification tables, a cut value, c, is identified, and expected values are grouped by comparing with this cut value. If the expected value exceeds c, it was included in group 1. Otherwise, it was included in group 0. The value of .50 is used for the cut level mentioned here (Murat ve Isigocok, 2007). For the attitude toward teaching profession, the classification rates were given in Table 2.

Table 2. The Classification Table for the Attitude toward Teaching Profession (ATP)

Observed	Predicted		Percentage Correct
	The Attitude toward Teaching Profession	toward Teaching	
	0 = Low	1 = High	
The Attitude toward Teaching Profession	0 = Low	1 = High	
	0 = Low	1 = High	
Overall Percentage			

The cut (c) value is .500

According to the table, the rate of predicting the low attitude toward teaching profession accurately is 65.8%, and the rate of predicting the high attitude toward teaching profession is 80.6%. In this sense, the right classification rate is 73% for the model. These values indicate the right classification of the model.

In logistic regression equation, p is the probability of presence of the characteristic of interest. The ODDS value refers to the odds that an outcome will occur given a particular exposure, compared to the odds of the outcome occurring in the absence of a particular exposure (Colak, 2002: 8). An ODDS ratio can be defined as the association between an exposure and outcome. In logistic regression equation, the odds ratio is figured like $\text{Exp}(\beta)$ (Girginer, Cankus, 2008: 186). As probability ratio (Odds) refers to the ratio of likelihood to occur an event to likelihood not to occur this event (Gujarati, 1999), $\text{exp}(\beta)$ Y variable states how many times or what percentage it is likely to be observed with the effect of Xp variable.

Parameter predictions, standard errors, Wald statistics, degrees of freedom, odds ratios and reliability limits were considered in the model regarding the Attitude toward Teaching Profession as seen in Table 3.

Table 3: Summary of binary logistic regression analysis for variables in the model

Variables	β	Standard Error	Wald	Degree of Freedom	Significance (p)	Exp(β)
Liking children	0,063	0,014	21,153	1	0,0	1,065
Empathic tendency	0,082	0,021	14,660	1	0,0	1,086
Willingness	2,539	0,513	24,502	1	0,0	1/0,079=12,65
Gender	0,191	0,271	0,496	1	0,481	1,210

According to the results of standard errors, Wald statistics, significance levels (p) and Exp(β) regarding the variables in Table 4, the results of liking children, empathic tendency and willingness variables considered as important for the attitude of student teachers toward teaching profession were found significant. However, gender variable is not significant within this context. For the significant variables Exp(β) value is taken into consideration. Exp(β) also shows to what extent overweight of the variable increase when the related variable increased one unit *ceteris paribus*. If Exp(β) value is below 1, it is assumed to have a positive effect on dependent variable. On the contrary, it has a negative effect when Exp(β) value is above 1 (Ozdamar, 2010).

Regarding liking children variable, it has a significant effect on the attitude toward teaching profession ($p < .05$). The Exp(β) value was computed as 1.065 for the variable of liking children. Considering this value, it can be stated that one-unit increase in liking children level cause 1.065 unit increase, and liking children has a positive effect on the attitude toward teaching profession.

The Exp(β) value about empathic tendency was 1.086 in the table above. Regarding the Exp(β) value in the table, it can be said that one-unit increase in the variable cause 1.086 unit increase, and it has a positive effect on the attitude toward teaching profession.

Considering the third independent variable of the study, willingness to go into the profession, the significance value was found below .05. Its Exp(β) value was 1/0.079=12.65. It can be said that one-unit increase in this value cause 12.65 unit increase, and willingness to go into teaching profession has an effect on the attitude toward teaching profession.

When the effect of gender on the attitude toward teaching profession was analyzed, the significance value was found as .481. As this value is bigger than .05, it is not statistically significant. Regarding this finding, gender has not an effect on the attitudes toward teaching profession.

4. Conclusion and Discussion

In this study, it was aimed to analyze the effect of student teachers' liking of children and empathic tendencies on the attitudes of teaching profession in terms of gender, and willingness of students while going into their profession. In this respect, the conclusions drawn from this study is presented below.

When the effect of liking children, an independent variable, on the attitude toward teaching profession was analyzed, it has a low but positive effect on the attitude of student teachers toward teaching profession. In Eskicumali's study (2002), liking children was one of the reasons for student teachers to choose teaching profession. Eight out of the ten study carried out in the USA indicate that liking and taking care of children is one of the three important factors to be teachers (Ergun, 1999). Regarding the result of this study about liking children, this variable has a low increasing effect on the attitudes toward

teaching profession while it was not a variable that affects the attitude. Low level of liking children is risky for the attitude toward teaching. However, it does not have an effective on it. This situation might result from that teaching profession has been becoming a professional occupation requiring specialized knowledge. In other words, teaching is more than an occupation that student teachers do for liking children.

When the effect of empathetic tendency, another independent variable, on the attitude toward teaching profession was analyzed, it has a low but positive effect on the attitude of student teachers toward teaching profession. This finding corroborates with the studies of Sayin (2003), and Celik & Cagdas (2010). Celik & Cagdas concluded that the empathetic tendency points of the participants choosing teaching willingly were found higher. It can be thought that liking profession and choosing it willingly have a positive effect on the attitudes of student teachers toward teaching profession. As referred in the introduction, this is an important qualification for student teachers to empathize with children like children liking level. However, as in the level of liking children, empathetic tendency levels did not increase the attitude toward teaching profession in an expected level.

When the effect of willingness to choose teaching profession on the attitude toward teaching profession was analyzed, it has a high and positive effect on the attitude of student teachers toward teaching profession. In Bozdogan, Aydin & Yildirim's study (2007), the participants who willingly choose teaching profession develop more positive attitude toward teaching profession. Akdag (2010) also expressed that the attitudes of student teachers choosing their department willingly developed more positive attitude toward teaching profession than the student teachers who unwillingly choose this profession. In Dogan and Coban's study (2009) the students suggesting teaching profession to their relatives and liking their profession develop more positive attitude toward teaching profession. In a comparison to the student teachers who choose teaching profession due to limitation of the options and low university entrance marks, the attitudes of the student teachers who willingly choose this profession were 12.65 times higher. This situation supports the view that teaching profession should be carried out consciously and willingly. The variables for this study were choosing teaching profession willingly or choosing teaching profession unwillingly, and these are the greatest risks for the attitudes toward teaching profession.

For this study, there is no statistically significant effect of gender on the attitudes toward teaching profession. There are some studies corroborating this study (Gurbuzturk & Genc, 2004; Ustun, 2007; Erdem & Anilan 2000, Kilic & Bektas 2008, Capa & Cil 2000; Cakir, Kan & Sunbul 2006, Demirtas, Comert, & Ozer, 2011; Acisli & Kolomuc 2012, Bulut, 2009). This study can be said not to support the view of "teaching profession is becoming a profession for females" (Tan, 1996, Fidan et al., 2012). However, there are some studies finding statistically significant difference between gender and the attitude toward teaching profession. In the studies of Sozer (1996); Tanriogen (1997); Celikoz & Cetin, (2004); Seferoglu (2004); Ustun, Erkan & Akman (2004); Celenk (1988); Cakir, Erkus & Kilic (2004); Oral (2004); Cakir (2005); Tay & Tay (2006); Gurbuz & Kisoglu (2007); Uredi & Uredi (2007); Capri & Celikkaleli (2008); Pehlivan (2008); Cicek-Saglam (2008), the female participants developed more positive attitude toward teaching profession. According to the results of this study, it does not pose a risk to be male or female in terms of the attitude toward teaching. In this sense, gender does not have an effect on the attitude toward teaching profession.

When all the results of this study were analyzed wholly, liking children and empathetic tendency, *ceteris paribus*, increase the teaching attitude by 6.5% and 8.6% respectively, and the willingness to choose the profession increase the attitude 12.65 times. In the literature, liking children and empathetic tendency step forward in terms of the qualifications required for teaching. However, it could be found that willingness to choose the profession has a incomparable high effect on the attitudes toward teaching profession.

The willingness to choose teaching profession is a vital risk factor for the attitude toward teaching profession. Some countries, such as Turkey, select students for higher education institutions with a central examination, and turn onto the departments their marks are enough for instead of choosing a department they liked. As a result, they work in the professions they did not like. Based on these findings, the teacher candidates should have the following qualifications to canalize them to the education faculties: (1) their children liking and empathetic tendency levels should be high, (2) they should be willing to work as teacher.

References

- Açisli, S., & Kolomuç, A. (2012). Study of the would-be class teachers' attitude towards the profession. *Journal of research in education and teaching*, 1 (2), 266-271.
- Agresti, A. (2007). *An introduction to categorical data analysis*. Hoboken, New Jersey: John Wiley & Sons, Inc., ISBN 978-0-471-22618-5.
- Alkan, C. (2000). Profession and teaching profession. In V. Sonmez (Ed.) *Introduction to Teaching Profession*. Ankara: Ani Publishing.
- Alver, B. (1998). Levels of compliance with the empathic skills of individuals. Master's Thesis. Atatürk University, Erzurum.
- Aydin, A. (1996). Investigation of several variables empathic skill. Master's Thesis. Ege University Institute of Social Sciences, Izmir.
- Barnett, M.A., & Sinisi, C.S. (1990). The initial validation of a liking of children scale. *Journal of personality assessment*. 55(162), 161-167.
- Bozdogan, A.E., Aydin, D., & Yildirim, K. (2007). Attitudes of teacher candidates towards teaching profession. *Kirsehir Ahi Evran University Journal of Education Faculty*. 8(2), 83-97.
- Bulut, I. (2009). Evaluation of teacher candidates' attitudes concerning teaching profession (Dicle and first university sample). *Dicle University Ziya Gokalp Journal of Education Faculty*. 14, 13-24.
- Cakir, O. (2005). Anadolu university open education faculty of english language teaching license program and faculties of education in english language teaching bachelor's degree program students vocational attitudes and perceptions of professional competency. *Inonu University Journal of Education Faculty*. 9 (6), 27-42.
- Cakir, O., Erkus, A., & Kiliç, F. (2000). Mersin University teaching profession 1999-2000 program year the evaluation of a variety of variables. Mersin University Research Fund EF (OC) 2000-*Research Project* No. 1.
- Cakir, O., Kan, A., & Sunbul, O. (2006). Attitudes and self efficacy evaluation of post-graduate education programs and teaching profession knowledge. *Mersin University Journal of Education Faculty*. 2, (1), 36-47.
- Capa, Y., & Cil, N. (2000). Prospective Teachers' Attitudes towards Teaching Profession Investigation of Different Variables. *Hacettepe University Journal of Education Faculty*. 18, 69-73.
- Capri, B., & Celikkaleli, O. (2008). Investigation of Preservice Teachers' Attitudes Towards Teaching And Professional Self-Efficacy Beliefs According To Their Gender, Programs, And Faculties. *Inonu University Journal of Education Faculty*. 9 (15), 33-53.
- Celenk, S. (1988). Education high school students' attitudes toward teaching. Master's Thesis. *SelçukUniversity Journal of Institute of Social Sciences*.
- Celik, E., & Cagdas, A. (2010). A Research Regarding The Emphatic Tendencies of Preschool Education Teachers In Terms of Some Variables. *SelçukUniversity Journal of Institute of Social Sciences*. 23, 23-38.
- Celik, K. (2010). Teaching as a profession.. (Improved 2 print) In A. Tanriogen & R. Sarpkaya (Eds.). *Introduction to education* (pp.235-267). Ankara: Ani Publishing.

The Effect of Student Teachers' Liking of Children and Empathic Tendency on the Attitudes of Teaching Profession

- Celikoz, N., & Cetin F (2004). Factors affecting anatolian teacher high school students' attitudes towards teaching profession. *Journal of National Education*. 162, 160-167.
- Cetin, S. (2006). Attitude scale development of teaching profession (Validity and Reliability Study). *Gazi University Journal of Industrial Arts Education Faculty*. 18, 28-37.
- Çiçek-Saglam, A. (2008). Department of music education students' attitudes towards teaching profession. *Yuzuncu Yil University Journal of Education Faculty*. 5(1), 59-69.
- Cooper, B. (2002). *Teachers as moral models? The role of empathy in teacher/pupil relationships*. (Doctoral dissertation, Leeds Metropolitan University). ProQuest Digital Dissertations.
- Coskun, S., Kartal, M., Coskun, A., & Bircan, H. (2004). An application of logistic regression analysis examining and dentistry. *Cumhuriyet University Journal of Dentistry Faculty*. 7 (1), 41-50.
- Cruickshank, D.L., Bainer, D.L., & Metcalf, K.K. (1999). *The act of teaching* (2nd Ed.). Boston: McGraw-Hill.
- Demirel, O. (2006). *Instructional Planning and Evaluation Teaching Art* (10. print). Ankara: Pegem A Publishing.
- Demirtas, H., Comert, M., & Ozer, N. (2011). Pre-Service Teachers' Self-Efficacy Beliefs and Attitudes towards Profession. *Education and Science*. 36,(159), 96-111.
- Dogan, T., & Coban, A.E. (2009). The Investigation of the Relations Between Students' Attitude Toward Teaching Profession and Anxiety Level in Faculty of Education. *Education and Science*. 34(153), 157-168.
- Dokmen, U. (2005). *Communication conflict and empathy*. Istanbul: Sistem Publishing.
- Downing, J. E., Ryndak, D.L., & Clark, D. (2000). Paraeducators in inclusive classrooms: Their own perceptions. *Remedial and Special Education*, 21, 171-181.
- Duke, D.L. (1990). *Teaching: an introduction*. New York: McGraw-Hill
- Duru, E. (2002). Trends to help prospective teachers of empathy-helping relationship and tendency to examine some of the variables. *Pamukkale University Journal of Education Faculty*. 12, 21-36.
- Duyan, V., & Gelbal, S. (2008). The Adaptation Study of Barnett Liking of Children Scale to Turkish. *Education and Science*. 33(148), 40-48.
- Ekinci, O. (2009). Analysis Of The Empathy And The Critical Thinking Disposition Of The Teacher Candidates. Master's Thesis. Cukurova University. Adana.
- Erdem, A.R., & Anilan, H. (2000). Pamukkale University Faculty of Education teacher training students' attitudes toward teaching profession. *Pamukkale University Journal of Education Faculty*, 7 (special issue), 144-148.
- Ergun, M., Egezer, B., Cevik, I., & Ozdas, A.(1999). *Introduction to teaching profession* (Edition 1). Ankara. Ocak Publications.
- Ergun, M., & Ozdas, A. (1999). The impact of school teacher observation and application studies. *AKU Journal of Social Science*. 3, 115-119.
- Eskicumali, A. (2002). Education, training and the teaching profession. In Y. Ozden (Ed.) *Introduction to teaching profession*. Ankara: PegemA Publishing.
- Fidan, F., Işci, O., & Yilmaz, T., (2012). Female Profession Concept: Significance and Content. *In Proceedings of the 4th International Women's / Gender Studies Conference*. 3-5 October Gazimagusa, North Cyprus.
- Gelbal, S., & Duyan, V. (2010). Examination of variables affecting primary school teachers' state of liking of children. *Hacettepe University Journal of Education Faculty* 38: 127-137 [2010]

- Genç, S. Z., & Kalafat T. (2010) Prospective Teachers' Problem Solving Skills and Empathic Skills *Journal Of Theoretical Training Science*. 3(2), 135-147.
- Genç, S.Z., & Kalafat, T. (2008) The Evaluation of Democratic Attitudes and Empathic Skills of Prospective Teachers. *Manas University Journal Institute of Social Sciences*. 19, 212-222.
- Girginer, N., & Cankus, B. (2008). Measuring the traveller satisfaction of tram using logistic regression: A case study of esttram. *Celal Bayar University Faculty of Economic and Administrative Sciences Journal of Management and Economics*, 15(1), s: 181-193.
- Gujarati, D.N. (1999). *Basic econometrics*. (Translated U.Senesen ve G.G. Senesen), Istanbul: Literatur Publishing,
- Gurbuz, H., & Kisoglu, M. (2007). Attitudes of the science and art faculty students and education faculty students attend the nonthesis graduated education program toward teaching profession (Ataturk University sample) *Erzincan University Journal of Education Faculty*, 9(2), 71-83.
- Gurbuzturk, O., & Genç, S.Z., (2004). Prospective Teachers' Views on Teaching Profession. *Inonu University Journal of Education Faculty*, 5 (7), 47-62.
- Hargreaves, L. (2009) The Status and Prestige of Teachers and Teaching., In L.J. Saha, A.G. Dworkin (Eds). *In International Handbook of Research on Teachers and Teaching (pp217–229)* .© Springer Science + Business Media LLC 2009
- Helvacı, M.A. (2009). Characteristic of teaching profession. In N. Sayılan (Ed.). *Introduction to teaching profession*. Ankara: Ani Publishing.
- Karakaya, A. D. (2001). Empathy Skills in Nursing Students at the University of the Mediterranean. Master's Thesis. Istanbul University Institute of Health Sciences. Istanbul.
- Karasar, N., (2005). *Scientific research method*. Ankara: Nobel Publishing.
- Karatas, Z. (2012). An Investigation of Self Esteem Levels and Empathic Skills of Educational Faculty Students. *Mehmet Akif Ersoy University Journal of Education Faculty*, 12 (23), 97-114
- Kilic, D., & Bektas, F. (2008). Evaluating of The Attitudes Of The Class Teacher Candidates Oriented To The Teaching Job *KKEFD*, 18,15-25
- Kiliç, D. (2005). *Introduction to teaching profession*. Erzurum: Aydan Publishing.
- Kiliç, S. (2005). Empathic Skill Levels in Pre-School Teachers in Istanbul Investigation of Some Variables. Master's Thesis. Marmara University Institute of Education Science, Istanbul.
- Kolayis, H., & Yigiter, K. (2010). The Examination Empathic Skills of the Elementary and Middle School Physical Education Teachers in City of Kocaeli. *International Online Journal of Educational Sciences*, 2010, 2(2), 562-578
- Kuzgun, Y. (2000). *Counseling in primary education* . Ankara: Nobel Publishing.
- Lasley, T. (1980). Preservice teacher beliefs about teaching. *Journal of Teacher Education*, 31(4), 38-41.
- Lemeshow, S., & Hosmer, D. (2000). *Applied logistic regression* (Wiley Series in Probability and Statistics). Wiley-Interscience; 2 Sub edition.
- Marso, R. N., & Pigge F. L. (1994). Personal and family characteristics associated with reasons given by teacher candidates for becoming teachers in the 1990's: Implications for the recruitment of teachers. *A paper presented at the annual conference of the Midwestern Education Research Association*. Chicago. October 12-15.
- Murat, D. (2006), Statistical Analysis of Monetary Crisis and Turkey Application, Master's Thesis. Uludag University Institute of Social Sciences , Bursa.

- Murat, D., & Isigiçok, E. (2007) Expectations for economic and political situation during the election period.: Bursa Application. *In Proceedings of the 8. Econometrics and Statistics Congress of Turkey* Malatya – Inonu University 24-25 Mayıs 2007
- Oguz, A., & Topkaya, N. (2008). Teachers 'Sense of Efficacy Beliefs of Secondary School Students' Attitudes toward Teaching with. *Academic Overview*, 14,23-36. URL (Last checked 20.Sep.2012) <http://www.akademikbakis.org>
- Oktay, A. (1991). Teaching Profession and Teacher Qualifications. *Marmara University Journal of Atatürk Education Faculty*, 3, 187-193.
- Oral, B. (2004) Faculty of Education Students' Attitudes toward Teaching Profession. *Educational Research*, 15, 88-98.
- Ozdamar, K. (2002). *Data analysis and statistical software packages*. Vol: 1, 2. Print, Eskisehir: Kaan Bookstore,
- Ozturk, F. S., Koparan, N. H., Efe, M., & Ozkaya, G. (2004). Coaches and referees Investigation of Empathy. *Sportmetre Journal of Physical Education and Sport Sciences*. 1(1) 19-25.
- Pehlivan, K. B. (2008). A Study on Pre-service Classroom Teachers' Socio-cultural Properties and Their Attitudes toward Teaching Occupation as a Subject. *Mersin University Journal of the Faculty of Education*, 4 (2), 151-168.
- Rogers, R.C. (1975) Empathic: An Unappreciated Wayof Begin. *The Counseling Psychologist*. Vol 5 No.2-10
- Ryan, K., & Cooper, J. M. (1972). *Those who can, teach*. Boston, New York: Houghton Mifflin
- Sadker, M. P., & Sadker, D. M. (2000). *Teachers, schools, and society*. New York: McGraw-Hill
- Sahin, A.E., (2006). Profession and the teaching. In V. Sonmez (Ed.). *Introduction to education*. (pp.261-306). Ankara: Ani Publishing.
- Sayin, S. (2003).Empathic tendency of college students' reading teacher candidate different programs, attitudes to teaching profession and professional self-esteem. *Suleyman Demirel University Journal of Education Faculty*, 12(2), 144-148.
- Seferoglu, S.S.(2004). Prospective teachers teachers' attitudes.Ankara. *In Proceedings of the XII. Conference on Educational Sciences. Gazi University Institute of Education Sciences*
- Semerci, C., Semerci, N., & Yazicioglu, S. (2000). Affective dimension measurement. *VIII. National Conference on Educational Sciences*.
- Semerci, N., Demiralp, D., Koç, S., & Kerimgil, S. (2009). The past (1942) and today (2003) appointed started by class teacher of teachers. Adana. C.U. Journal of Social Science 33 (1), 37-60
- Senel, H.G., Demir, I., Sertelin, C., Kiliçaslan, A., & Koksall, A. (2004). The relationship betweenattitude and personality characteristics of teaching profession. *Educational Research*. 15 (4), 99-109.
- Simsek, H., (2005). Secondary school teacher of post graduated program program students who continue the profession of teaching attitudes towards. *Yuzuncu Yil University Journal of Education Faculty*. 2(1): 1-26
- Sozer, E. (1996). Prospective teachers' attitudes towards teaching profession studying at universities. *Anadolu University Journal of Education Faculty*. 6(2): 7-21
- Spreng R, N., McKinnon, M. C., Mar, R.A., & Levine, B. (2009). The Toronto Empathy Questionnaire: Scale Development and Initial Validation of a Factor-Analytic Solution to Multiple Empathy Measures. *J Pers Assess*. 2009 January ; 91(1): 62–71. doi:10.1080/00223890802484381
- Tan, M. (1996). *A woman teaching profession. Women facts*. (comp: necla arat) Istanbul: Say Publishing.
- Tanriogen, A. (1997). The attitudes of the students at Buca Faculty of Education towards teaching. *Pamukkale University Journal of Education Faculty*, 3: 55-58

- Tay, B., & Tay, A.B. (2006). *The effects of attitude on success in social sciences courses*. URL (Last checked 20.Sep.2012) http://www.tebd.gazi.edu.tr/arsiv/2006_cilt4/sayi_1/73-84.pdf
- Tettegah, S., & Anderson, C. J. (2007). Pre-service teachers' empathy and cognitions: Statistical analysis of text data by graphical models. *Contemporary Educational Psychology*, 32, 48–82.
- Totan, T., Sapmaz, F., & Dogan, T. (2012). The Toronto Empathy Questionnaire: Evaluation of Psychometric Properties among Turkish University Students. *Eurasian Journal of Educational Research*, 46
- Toussaint, L., & Jon, W.R. (2005). Gender differences in the relationship between empathy and forgiveness. Published In Final Edited Form As: *J Soc Psychol*. 145(6): 673–685.
- Turnage, B.F., Hong, Y.J., Stevenson, A.P., & Edwards, B. (2012). Social work students' perceptions of themselves and others: self-esteem, empathy, and forgiveness. *Journal of Social Service Research*, 38: 89–99.
- Uredi, I., & Uredi, L. (2005). Prospective teachers of the classroom teacher in the section relating to the attitudes of the examination of a program for evaluation of the work. Retrieved from http://www.google.com.tr/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&cad=rja&ved=0CCMQFjAA&url=http%3A%2F%2Foldweb.yeditepe.edu.tr%2Fyeditepe%2FGetFile.aspx%3Faliaspath%3D%252FYeditepeUniverSiteSi%252Fegitim%252FEgitim%2BFakultesi%252FEDU7%252FCilt%2B1%2BSayi%2B2%252Fmakale5_doc&ei=rpm0UOLtNKbe4QTEg4HoBQ&usg=AFQjCNEkmHUUa0j0hxecOwkzGQiXAgghmQ
- Ustun, A., (2007). Teachers of different branches comparative analysis of attitudes towards teaching profession. *Journal of Contemporary Education*, 339:20-27
- Ustun, E., Erkan, S., & Akman, B. (2004). Investigation of pre-school education students' attitudes towards teaching profession in Turkey Kyrgyzstan-Turkey *Manas University Journal of Science*. 10:129-136
- Ustuner, M. (2006). Reliability and validity study of an attitude scale of teaching profession. *Educational Administration-Theory and Practice*. 45:109-127
- Uygun, E., (2006). Evaluating of empathy ability level of nurses that work at psychiatry ward. Istanbul Universty, Healt Science Institute, Psychiatric Nursing Department, Master's Thesis, Istanbul.
- Veenman, S. (1984). Perceived problems of beginning teachers. *Review of Educational Research*, 54 (2): 143-178.
- Yildirim, I. (1992). The guidance and counseling program with students from the psychology program students empathetic trend and empathetic skill levels. *Hacettepe University Journal of Education Faculty*. 7:193-208