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

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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 knowledgeableness. 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 (Kılıç, 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), Kolayis & Yigiter (2010), and Karatasi (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; Ozguz & 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 empathetic 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 empathetic tendencies, and the Attitude Scale of Teaching Profession (Ustun, 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), and10 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 & Lemeshovv, 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 $\chi^2$ 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. $\chi^2$ 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**

<table>
<thead>
<tr>
<th>Method</th>
<th>Chi-square ($\chi^2$)</th>
<th>df</th>
<th>Sig. (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hosmer and Lemeshow</td>
<td>12,956</td>
<td>8</td>
<td>.113</td>
</tr>
</tbody>
</table>

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 Isicioglu, 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)**

<table>
<thead>
<tr>
<th>Observed The Attitude toward Teaching Profession</th>
<th>Predicted Percentage Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 = Low</td>
<td>125</td>
</tr>
<tr>
<td>1 = High</td>
<td>36</td>
</tr>
<tr>
<td>Overall Percentage</td>
<td></td>
</tr>
</tbody>
</table>

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>
<thead>
<tr>
<th>Variables</th>
<th>β</th>
<th>Standard Error</th>
<th>Wald</th>
<th>Degree of Freedom</th>
<th>Significance (p)</th>
<th>Exp(β)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liking children</td>
<td>0.063</td>
<td>0.014</td>
<td>21,153</td>
<td>1</td>
<td>0.0</td>
<td>1.065</td>
</tr>
<tr>
<td>Empathic tendency</td>
<td>0.082</td>
<td>0.021</td>
<td>14,660</td>
<td>1</td>
<td>0.0</td>
<td>1.086</td>
</tr>
<tr>
<td>Willingness</td>
<td>2.539</td>
<td>0.513</td>
<td>24,502</td>
<td>1</td>
<td>0.0</td>
<td>1/0.079=12.65</td>
</tr>
<tr>
<td>Gender</td>
<td>0.191</td>
<td>0.271</td>
<td>0.496</td>
<td>1</td>
<td>0.481</td>
<td>1.210</td>
</tr>
</tbody>
</table>

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.
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); Pehlivian (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 an 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
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