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# Predictions and Attitudes towards Giftedness and Gifted Education

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**KEYWORDS** Attitude Scale. Behaviors. Characteristics of Gifted Children. Teacher Candidates. Perceptions

**ABSTRACT** This study aims to determine the predictions and attitudes of teacher candidates studying in the education department towards the education of gifted children. Descriptive statistics with a combination of quantitative and qualitative methods were used in this study. The participants of the study consist of 245 university students. 20 of them studying in the Gifted Education Department and Primary School Education Department are also included for the applying of the semi-structured interview form.To collect the quantitative data, the "attitude scale towards gifted education" and semi-structured interview form developed by the researcher were used as data collection tools. Results show that teacher candidates have positive attitudes towards the education of gifted children. Most of the teacher candidates studying in the gifted education department have predicted the best part of working with gifted children as taking their cognitive behavior into consideration while a few of them have taken their affective and psychomotor behavior into consideration.

## INTRODUCTION

For the production and reproduction of society and culture, learning and teaching have crucial importance for socialization, adaptation of humankind and for the change of culture.

Teachers have different beliefs about the meaning of "giftedness" in schools since, the term "giftedness" is not currently defined in an international perspective or agreement (Manning 2006; Mcclain and Pfeiffer 2012). In addition to this, each society has its own values, needs, and intereststhat differ and change dynamically over time (Sternberg and Davidson 1986; Diezmann 2002; Ozcan and Mertol 2015). Because of this reason, the term "giftedness" is defined by each society according to its values and culture. Since the teacher candidates have limited knowledge about the education of gifted people, this situationaffects their attitudes toward these students in a negative way (Paine 1990; Morrissey 2006; Troxclair 2013). Teacher candidates believe in the existing different needs among students, but Paine concluded from the data collected by the National Centre for Research on Teacher Education that teachers have difficulties in analyzing their students' different needs because of having less knowledge and not having enough experience (Paine 1990).

Lack of explicit knowledge affects attitudes andperceptions that influence behavior (Bohner and Wänke 2002; Mertol et al. 2016). Hence,the perception of gifted children and their education and the behaviors of teachers towards these students are affected by negative attitudes about intellectual intelligence. Teachers' understandings and attitudes are the aspects of teaching. It is crucial to be aware of the teachers' beliefs, andproblems they might have in implementation of gifted education practices and policies to educate these students in a successful way. Teachers' attitudes towards gifted students must be considered while developing gifted education programs since it is one of the important factors (Davis and Rimm 2004; Baudson and Preckel 2016). Teachers might have mistaken beliefs because of having lack of knowledge (Gross 1994; Collins 2001; Clark 2002). Study results show that teachers' lack of knowledge about gifted education affects academic, social and emotional development of the students negatively (Gallagher 1996; Gross 1994; Ozcan et al. 2015). In addition to these, research findings also point out that attitudes are important for people's social psychology at many levels (Eagly and Chaiken 1993; Bohner and Wanke 2002). It will be more difficult to change attitudes when it is involved in one's core personality deeply (Oppenheim

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1992; Ozcan and Kayadelen 2015). To improve the attitudes towards giftedness, effective training implications that affect underlying, core beliefs are required.

While some researchers have examined the impact of teacher candidates' training courses on their attitudes toward gifted education, some researchers have emphasized that it is important to investigate their existing attitudes (Buttery 1978; Tomlinson et al. 1994; Carrington and Bailey 2000; Taylor 2001; Sumreungwong 2003; Buldu 2005; Bain et al. 2007; Curtis 2005; Moon et al. 2010; Berman et al. 2012).

Generally, teacher candidates do not have enough information about gifted students and their needs (Kiley and Jensen 1998; Callahan et al. 2003; Bain et al. 2007; Berman et al. 2012; Baudson and Preckel 2016). As a result, they have also negative attitudes toward them and their services (Carrington and Bailey 2000). Bain et al. (2007) investigated the attitudes of teacher candidates toward the gifted students' educational needs. The results of the study pointed out that most of the participants believed that gifted students could be successful without needing any special services. In addition to this, it is also pointed out that most of the teacher candidates participating in the study had a misunderstanding about differentiation and academic acceleration. In conclusion shows that these two areas of specific misunderstanding should be addressed in the courses of teachers' candidates. That is, the attitudes of teacher candidates play a crucial role in the education of gifted students.

### Objectives of the Research

The aim of this study is to determine the predictions and attitudes of teacher candidates studying in the education department towards the education of gifted children. More specifically the study seeks to answer the following questions:

1. How are the teacher candidates' general attitudes towards the education of gifted children?
2. Is there any significant difference in the teacher candidates' attitudes towards the education of gifted children in terms of gender?
3. Is there any significant difference in the teacher candidates' attitudes towards the education of gifted children in terms of age?
4. Is there any significant difference in the teacher candidates' attitudes towards the education of gifted children in terms of department?
5. What are the predictions of teacher candidates towards working with gifted children?

## METHODOLOGY

### Research Method

Descriptive statistics with a combination of quantitative and qualitative methods were used in this study. Descriptive statistics is defined as pattern organization being applied on a group of sampling or on the whole universe in order to reach an overall judgment about the universe when the universe consists of a lot of subjects (Karasar 2005).

### Study Group

The participants of the study consist of 245 university students studying in the education faculty in Near East University, North Cyprus. 20 of them studying in the Gifted Education Department and Primary School Education Department are also included for the applying of semi-structured interview form.

### Data Collection Tools and Analysis

To collect the quantitative data, the "attitude scale towards gifted education" adapted by Tortop (2012), and for the qualitative data, thesemi-structured interview form developed by the researcher were used as data collection tools. The SPSS 21 packet program was used to analyze the quantitative data, andthe qualitative data firstly was formed as written by researcher on computer, then analyzed by using content analysis chosen from quantitative research techniques. Each of the answers that teacher candidates gave were grouped in terms of similarity and interpreted. Also, one or two answers that were given to each questions, were presented in the same way. In order to increase the reliability of study, the opinions of specialist were taken into consideration and common points were determined.

## RESULTS

Descriptive statistics results of the teacher candidates' 'Attitudes towards the Education of Gifted Children' are given in Table 1.

**Table 1: Teacher candidates' general attitudes towards the education of gifted children**

| *Items* | *N* | *Min.* | *Max.* | *Mean* | *SD* |
|---|---|---|---|---|---|
| I1 | 245 | 1 | 5 | 4.12 | .954 |
| I2 | 245 | 1 | 5 | 3.78 | 1.003 |
| I3 | 245 | 1 | 5 | 3.87 | 1.026 |
| I4 | 245 | 2 | 5 | 4.24 | 1.010 |
| I5 | 245 | 2 | 5 | 3.51 | 1.158 |
| I6 | 245 | 2 | 5 | 3.99 | 1.075 |
| I7 | 245 | 2 | 5 | 3.66 | 1.091 |
| I8 | 245 | 2 | 5 | 3.19 | 1.176 |
| I9 | 245 | 2 | 5 | 3.49 | 1.220 |
| I10 | 245 | 2 | 5 | 3.43 | 1.245 |
| I11 | 245 | 1 | 5 | 3.85 | 1.055 |
| I12 | 245 | 2 | 5 | 2.97 | 1.222 |
| I13 | 245 | 2 | 5 | 2.79 | 1.191 |
| I14 | 245 | 2 | 5 | 2.75 | 1.227 |
| Total | 245 | 1 | 5 | 3.54 | .565 |

Table 1 shows that the while the general mean score of the teacher candidates' attitudes towards the education of gifted children is in the limits of "agree" (M= 3.54, S=.565), the teacher candidates have nearly positive attitudes towards the education of gifted children. They have the most positive attitude in the item that 'to gather the gifted students in different classrooms make the other students feel miserable' (M= 4.24, S=1.010). Another positive attitude is seen for the item that 'the best way of meeting the education needs of gifted children is to provide them with special classrooms' (M= 4.12, S=.954), the items 'the same financial investment for the students with learning disabilities must be provided for the gifted children' (M= 2.79, S=1.191), and 'curriculums followed in schools hinder the curiosity of the gifted students' (M= 2.75, S=1.227).

## Teacher Candidates' Attitudes towards the Education of Gifted Children in Terms of Gender

A t-test analysis was administered to find out whether there was any significant difference between the teacher candidates' attitudes towar-ds the education of gifted children in terms of gender. The t-test results about the teacher candidates' attitudes towards the education of gifted children in terms of gender are presented Table 2.

As it is seen in Table 2, the mean score for the teacher candidates' attitudes towards the education of gifted children about "needs of gifted and support" was M=3.91 and S=.699 for the females and M=3.82 and S=.630 for the males. This indicated that there is no significance between the female and male teacher candidates' attitudes regarding "needs of gifted and support" (t=1.052, P>0.05). However, the results showed that the mean score for the attitudes of the teacher candidates about "to suppose specific services for gifted" was M=3.50 and S=.934 for the female and M=3.15 and S=1.023 for the male. This might mean that the female teacher candidates have more specific services for gifted children than the male teacher candid-ates (t=-2.696, P<0.05).There is no significance between the mean scores of the female (M=3.14, S=.809) and male (M=3.00, S=.651) teacher candidates' attitudes regarding "create special talented classes" (t=.178, P>0.05).There was also no significance between the mean scores of the female (M=3.60, S=.583) and male (M=3.44, S=.518) teacher candidates' attitudes towards the education of gifted (t=2.200, P<0.05). This result shows that female teacher candidates have more positive attitudes than males towards the education of gifted.

## Teacher Candidates' Attitudes towards the Education of Gifted Children in Terms of Age

The Kruskal Wallis Test analysis was administered to find out whether there was any significant difference between the teacher candidates' attitudes towards the education of gifted children in terms of ages. The Kruskal Wallis Test

**Table 2: Teacher candidates' attitudes towards the education of gifted children in terms of gender**

| | *Gender* | *N* | *M* | *SD* | *Df* | *T* | *P* | *Explanation* |
|---|---|---|---|---|---|---|---|---|
| *NGS* | Female | 156 | 3.91 | .699 | 243 | 1.052 | .294 | P>0.05 |
| | Male | 89 | 3.82 | .630 | | | | Insignificant |
| *OSSG* | Female | 156 | 3.50 | .934 | 243 | 2.696 | .008 | P<0.05 |
| | Male | 89 | 3.15 | 1.023 | | | | Significant |
| *CSTC* | Female | 156 | 3.14 | .809 | 243 | 1.484 | .139 | P>0.05 |
| | Male | 89 | 3.00 | .651 | | | | Insignificant |
| *General Total* | Female | 156 | 3.60 | .583 | 243 | 2.200 | .029 | P<0.05 |
| | Male | 89 | 3.44 | .518 | | | | Significant |

results about the teacher candidates' attitudes towards the education of gifted children in terms of gender are presented in Table 3.As it is seen in Table 3, there is no significance between the attitudes of teacher candidates in terms of their ages regarding "needs of gifted and support" ($\chi^2$ (2)= 2.637; P=.453; P>0.05), "to suppose specific services for gifted" ($\chi^2$ (2)= 3.118; P=.453; P>0.05), "create special talented classes" ($\chi^2$ (2)= .933; P=.453; P>0.05), and general attitudes towards gifted education ($\chi^2$ (2)= 2.854; P=.415; P>0.05).

### Teacher Candidates' Attitudes towards the Education of Gifted Children in Terms of Department

The One-Way ANOVA analysis was administered to find out whether there is any significant difference between the teacher candidates' attitudes towards the education of gifted children in terms of department. The one-Way ANOVA test results about the teacher candidates' attitudes towards the education of gifted children in terms of department are presented in Table 4. There is a significant difference among teacher candidates' attitudes regarding "needs of gifted and support" ($F_{(5;239)}$= 7.182, p<0.05), and also significant differences are found among teacher candidates' attitudes regarding "to suppose specific services for gifted" ($F_{(5;239)}$= 4.988, p<0.05). Furthermore, significant differences are found among teacher candidates' attitudes regarding "create special talented classes" ($F_{(5;239)}$= 2.492, p<0.05). More-over, there are significant difference between the teacher candidates' general attitudes towards the gifted education in general $F_{(5;239)}$= 8.456, p<0.05) according to their departments.

The LSD test was employed in order to determine which groups have significant differences. According to the test results, there was a significant difference among the attitudes of teacher candidates studying in the gifted education department (GED), mentally retarded education department (MRED), primary school education department (PSED), Turkish language teaching department (TLTD), pre-school teaching department (PSTD) and psychological counseling and guidance department (PCGD). Teacher candidates studying in the gifted education department have more positive attitudes in all dimensions of gifted education. This result might be interpreted as taking related courses with the special areas affects the attitudes of students.

### Predictions of Teacher Candidates towards Working with Gifted Children

The data obtained from the interview form about teacher candidates' predictions towards working with gifted children is discussed below. Two questions, "*what do you think would be the most difficult part of working with gifted*

**Table 3: Teacher candidates' attitudes towards the education of gifted children in terms of age**

| *Dimension* | *Age* | *N* | *Mean rank* | *Df* | $\chi^2$ | *P* |
|---|---|---|---|---|---|---|
| *NGS* | 17-19 | 11 | 149.41 | 3 | 2.637 | .453 |
| | 20-22 | 120 | 124.46 | | | |
| | 23-25 | 87 | 115.93 | | | |
| | 25 and upper | 27 | 128.56 | | | |
| | Total | 245 | | | | |
| *OSSG* | 17-19 | 11 | 143.14 | 3 | 3.118 | .374 |
| | 20-22 | 120 | 128.62 | | | |
| | 23-25 | 87 | 115.84 | | | |
| | 25 and upper | 27 | 112.89 | | | |
| | Total | 245 | | | | |
| *CSTC* | 17-19 | 11 | 128.68 | 3 | .933 | .818 |
| | 20-22 | 120 | 125.02 | | | |
| | 23-25 | 87 | 123.17 | | | |
| | 25 and upper | 27 | 111.17 | | | |
| | Total | 245 | | | | |
| *Total* | 17-19 | 11 | 149.73 | 3 | 2.854 | .415 |
| | 20-22 | 120 | 126.70 | | | |
| | 23-25 | 87 | 116.80 | | | |
| | 25 and upper | 27 | 115.65 | | | |
| | Total | 245 | | | | |

**Table 4: Teacher candidates' attitudes towards the education of gifted children in terms of department**

| *Dimension* | *Department* | *N* | *M* | *SD* | *df* | *F* | *P* |
|---|---|---|---|---|---|---|---|
| | MRED | 65 | 3.87 | .751 | 5 | 7.182 | .000 |
| | GED | 20 | 4.55 | .402 | | | |
| | PSED | 39 | 3.75 | .603 | | | |
| *NSG* | TLTD | 20 | 3.40 | .710 | | | |
| | PSTD | 48 | 3.84 | .574 | | | |
| | PCGD | 53 | 3.96 | .598 | | | |
| | Total | 245 | 3.88 | .675 | | | |
| | MRED | 65 | 3.18 | .847 | 5 | 4.988 | .000 |
| | GED | 20 | 4.03 | 1.179 | | | |
| | PSED | 39 | 3.25 | 1.018 | | | |
| *OSSG* | TLTD | 20 | 3.01 | .783 | | | |
| | PSTD | 48 | 3.20 | 1.048 | | | |
| | PCGD | 53 | 3.72 | .842 | | | |
| | Total | 245 | 3.37 | .979 | | | |
| | MRED | 65 | 3.11 | .648 | 5 | 2.492 | .032 |
| | GED | 20 | 3.42 | .921 | | | |
| | PSED | 39 | 3.11 | .850 | | | |
| *CSTC* | TLTD | 20 | 2.61 | .695 | | | |
| | PSTD | 48 | 3.12 | .707 | | | |
| | PCGD | 53 | 3.08 | .759 | | | |
| | Total | 245 | 3.09 | .757 | | | |
| | MRED | 65 | 3.51 | .528 | 5 | 8.456 | .000 |
| | GED | 20 | 4.11 | .537 | | | |
| | PSED | 39 | 3.46 | .604 | | | |
| *General* | TLTD | 20 | 3.09 | .510 | | | |
| | PSTD | 48 | 3.50 | .485 | | | |
| | PCGD | 53 | 3.66 | .500 | | | |
| | Total | 245 | 3.54 | .565 | | | |

*children?"* and *"what do you think would be the best part of working with gifted children?"* were asked to teacher candidates.

## Predictions on What Would be the Best Part of Working with Gifted Children

Teacher candidates' predictions about the best parts of working with gifted children are categorized in three themes.According to Table 5, most of the teacher candidates studying in the gifted education department have predictedabout the best part of working with gifted children as taking their cognitive behavior into consideration, while a few of them have taken their affective and psychomotor behavior into consideration. Teacher candidates' predictions are given below according to themes.

**Table 5: The best parts of working with gifted children**

| *Themes* | *N* |
|---|---|
| Cognitive behaviour | 20 |
| Affective behaviour | 2 |
| Psychomotor behaviour | 2 |

### *Cognitive Behaviors of Gifted Children are the Best Part of Working with Them*

Some of the teacher candidates predicted about the best part of working with gifted children as, *"They are aware of their responsibilities, so their teachers do not spend too much time for this issue". Some of them stated, "They have high motivation to learn different subjects, so the lessons are very interesting", "They think academically, so you can work on important projects", and "They can solve complicated problems, so the lessons are based on advanced thinking."* In addition to these, some of them predicted, "They think differently and quickly, so the lessons are very interactive."

### *Affective Behaviors of Gifted Children are the Best Part of Working with Them*

Some of the teacher candidates predicted about the best part of working with gifted children as, *"They have funny and smart characteristics"*, and *"They have a very keen sense of social dynamics, so they can behave like an adult".*

### *Psychomotor Behaviors of Gifted Children is the Best Part of Working with Them*

Some of the teacher candidates predicted about the best part of working with gifted children as, *"They are highly productive in their lessons"* and *"They like to engage in experimental studies."* According to Table 6, most of the teacher candidates studying in the gifted education department have predicted about the difficult part of working with gifted children taking their affective and cognitive behaviors into consideration. Teacher candidates' predictions are given below according to themes.

**Table 6: The difficult parts of working with gifted children**

| *Themes* | *N* |
|---|---|
| Cognitive behaviour | 1 |
| Affective behaviour | 19 |
| Total | 20 |

### *Cognitive Behaviors of Gifted Children are the Difficult Part of Working with Them*

Some of the teacher candidates predicted about the difficult part of working with gifted children as, *"They think intensive and quick, so it can be difficult to meet their cognitive needs, and that's why some of the teachers might be reluctant to work with them."*

### *Affective Behaviors of Gifted Children are the Difficult Part of Working with Them*

Some of the teacher candidates predicted about the difficult part of working with gifted children as, *"Their intensive thinking abilities can be difficult with regards to their emotional development, so the teachers have to provide the balance well", "they are bored quickly so the teachers have to be dynamic to make the lessons interactive","These children can have difficulties with their peers, and struggle greatly in their social areas", and "They behave like a leader in group studies, so this causes problems in the classroom."*

## DISCUSSION

According to results of the study, the teacher candidates have positive attitudes towards the education of gifted children. While developing and applying gifted education programs, teachers' attitudes should be considered since it plays a crucial role in the education of gifted students (Buttery 1978; Tomlinson et al. 1994; Carrington and Bailey 2000; Taylor 2001; Sumreungwong 2003; Buldu 2005; Curtis 2005; Bain et al. 2007; Moon et al. 2010; Berman et al. 2012; Andronache et al. 2014; Mertol et al. 2015). "It has also a crucial effect onthe future education of gifted students" (Curtis 2005; Preckel et al. 2015). Thus, to prepare the teachers of these students well for their role is very important. In addition to this, female teacher candidates have more positive attitudes than males towards the education of the gifted. Ages of the teacher candidates do not affect the attitudes towards the education of gifted children. There was a difference among the attitudes of teacher candidates studying in gifted education department (GED), mentally retarded education department (MRED), primary school education department (PSED), Turkish language teaching department (TLTD), preschool teaching department (PSTD), and psychological counseling and guidance department (PCGD). Teacher candidates studying in the gifted education department have more positive attitudes in all dimensions of "needs of gifted and support", "to suppose specific services for gifted", and "create special talented classes" in gifted education. This result might be interpreted as taking related courses with the special areas affects the attitudes of students in a positive way. It is pointed out in the study that there are two significant variables having a positive relation with the attitudes toward gifted students. One of them is the type of degree which is held, and the other one is to take a course about gifted education (Wiener and O'Shea 1963; Baudson and Preckel 2016). To parallel with these results, findings of the other studies show that involving oneself in a gifted course or having experience with gifted children affects the attitudes of teachers positively (Buttery 1978; Megay-Nespoli 1998; Bangel 2007; Bangel et al. 2006). However, in some study results, no significant difference is found in the attitudes of teachers whether studying a course about giftedness or not.

Furthermore, most of the teacher candidates studying in gifted education department have predicted about the best part of working with gifted children taking their cognitive behavior

into consideration while a few of them have taken their affective and psychomotor behavior into consideration. However, most of the teacher candidates studying in gifted education department have predicted about the difficult part of working with gifted children taking their affective and cognitive behaviors into consideration. Gifted students have different needs according to their learning styles, emotional, cognitive and psychomotor abilities (Grigorenko and Sternberg 1997; Winebrenner 2000; Clark 2002; Renzulli 2002; Gagneì 2004; Kayaoglu 2013). So, teacher candidates must be educated adequately about these different characteristics of gifted students to meet their special needs (Davis and Rimm 2004).

## CONCLUSION

To conclude, the teacher candidates' variables like gender and age do not affect their attitudes towards gifted education. However, this study shows that teacher candidates' department affects their attitudes, that is, taking undergraduate gifted courses in universities impact the attitudes of teacher candidates towards the education of gifted students positively. When the literature is reviewed, varied results can be found about the effects of undergraduate courses on giftedness. In addition to these, cognitive skills of gifted children are considered the best part of working with them, although some of the teacher candidates take their emotional and psychomotor abilities into consideration.

## RECOMMENDATIONS

Based on the results obtained from the research, gifted education courses should be included in the curriculums of all education faculty departments. Workshops or seminars should be organized to increase the awareness amongst all teacher candidates about gifted education and characteristics of gifted children. This study should be carried on with teachers.

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