

*Full Length Research Paper*

# Examining the permanence of the effect of an empathy program for the acquisition of empathy skills on gifted adolescents

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This study aimed to examine the permanence of the effect of an Empathy Training Program, administered 8 months ago on gifted adolescents studying in 6<sup>th</sup> and 7<sup>th</sup> grades. The sample of this study consisted of 60 students with IQ scores of above 130 and studied in Enderun Gifted Children Center. Bryant's Empathy Scale for Children was administered to these students. Then, 16 students whose empathy scores were below 10 were chosen. These students were randomly separated into experimental and control groups. Pretest and posttest control group design was used and the follow-up study was administered 8 months later. Mann-Whitney U test and Wilcoxon test were used to analyze. As a result of the analyses conducted to test the permanence of the effect of an applied training program, which was administered as the second stage of the study. There was a small increase in empathy scores of both groups, but there was a little more increase in scores of experimental group. However, as it was expected, this increase was not in a significant level. In conclusion, according to the obtained results, it was seen that the effect of an empathy-training program on gifted adolescents with low empathy scores was still permanent and this indicates that the applied empathy-training program is an effective and permanent study.

**Key words:** Gifted children, empathy skills, empathy program.

## INTRODUCTION

Psychological science has become more acceptable and a popular science in recent years and, some concepts in this science have become widespread. One of those concepts, maybe the most common one is empathy. Most of us might have witnessed the demand of empathy of one person to the other in any conflict or deadlock. In fact, the most outstanding reason of this demand is the desire and the need of the person for being understood.

The desire for being understood may appear both in this kind of problem cases and situations originating from being minority in the society (for example; disabled groups, ethnic minority, gifted individuals). Individuals with gifted intelligence and high talents represent one of the groups that need empathic understanding. The concept of empathy is evaluated as an important term for understanding this and this kind of group members

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completely and accurately.

Empathy is the skill of entering into another individual's life, which may be defined as being able to see the connections underlying behavior, emotion, and thoughts that occur during interaction, and understanding what the person is going through (Ivey and Morgan, 1997).

As Barnett (1990) said, some authors and researchers (Borke, 1971; Buckley et al., 1979; Greenspan et al., 1976) define empathy as a cognitive skill enabling an individual to understand another individual's emotions and thoughts. People with opposing views (Batson and Coke, 1981; Feshbach, 1978; Hoffman, 1982; Sawin, 1979; Staub, 1978, Stotland, 1969) define empathy as experiencing an emotion similarly without identifying with the emotion of the other individual. This conceptual conflict arises from these two views about empathy. The key issue in this conflict is whether empathy is affective or cognitive and in what degree. In fact, saying that empathy includes both affective and cognitive elements would not be wrong.

By taking Rogers as a reference, Dokmen (1994) defines empathy as "by putting oneself in other person's shoes, it is the process of understanding and feeling the emotions and thoughts of an individual correctly, and transferring this situation to the person."

Voltan-Acar (1998) stated that empathy is the skill of perceiving and understanding expression and density of others' feelings.

According to the three-part model of Feshbach (1978), empathic reaction requires following three conditions:

1. The ability of detecting and recognizing other emotional situations
2. Ability to capture the role and perspective of the other
3. Evoking shared emotion and event

When we examine all of these definitions, we understand that the concept of empathy must be an inseparable part of interpersonal relationships, and development of this skill will increase social and communal adaptation. Especially, as we stated before, it will be seen that empathy is a facilitator factor both in daily relationships and in adaptation of minority groups to the society.

Freeman (1985) defined genius as the competence of exhibition of the strengths in the highest level in the activities of any specific area. While at first this concept was used for children who were extraordinarily successful, later it became a definition considered appropriate for children who have an IQ score ranked in percentile of two standard deviation from the mean. World Health Organization defines individuals who have 130 and more IQ score as "Gifted" (Uzun, 2004). Sears states that gifted children tend to be gifted adolescents socially, physically and academically; they are healthier, and they have a higher chance to enter university, make professional career and make a happy marriage (Sdorow, 1990). According to Renzulli (1978, 180-181), the

definition of giftedness cannot be explained with only one criterion, because giftedness is comprised three clusters connected to each other. These compounds are above average ability, commitment to duty and creativity. For giftedness, interaction of these three characteristics is required and each characteristic has equal contribution in this interaction.

As Silverman (1997, pp. 50-54) cites, giftedness is an asynchronous development in which increased density and advanced cognitive ability come together and qualitatively create a deviant awareness and internal experience. This asynchrony condition increases with high intellectual capacity (The Columbus Group, 1991). Asynchronous developments are cognitive, physical, emotional, and social developments that reveal themselves in different ratios in serious levels. In such a case, the child may not be emotionally ready to cope with the increased awareness that occurs because of advanced cognitive development (Hollingworth, 1931 & Morelock, 1992). The child may be a misfit with his or her peers socially, educationally and culturally (Terrassier, 1985). It is thought that this asynchrony condition affects empathic developments of some gifted children negatively.

Furthermore, studies conducted on gifted individuals show that gifted children experiences emotional problems as other children do. There are two situations that may cause problem for gifted children: First, they are not being challenged enough and so they get bored, and the second is the danger of social exclusion due to not being understood (Jost, 2006). In this situation, our observations about gifted children make us think that especially the problems they experience socially arise since adequate empathy cannot be established with them. Especially, when parents cannot realize that their child is gifted, they remain inadequate in understanding their children, and in developing empathy for them. And for this reason, since no empathy is developed for these children, gifted children cannot learn how to develop empathy and they have difficulty in developing empathy for others too. From this point forth, the purpose of the first study was to investigate whether applied empathy training program was effective in increasing empathy skills of gifted children who could not develop adequate empathy skills because they were not understood adequately or at least since it was late for them to be understood. And in this follow-up study, it was aimed to examine the permanence of this effectiveness.

While intelligence was mostly perceived as the ability to perform cognitive activities until Gardner's *Multiple Intelligences Model*, we realized that there might be other competency areas apart from cognitive activities.

This situation led to significant developments in the sense of evaluating intelligences, and correspondingly explaining high intelligence and giftedness. Besides, the concept of emotional intelligence carried Gardner's Multiple Intelligence Model one step forward. Even though the emotional intelligence concept was not included in the

scope of the present study, the reason of our emphasis on this concept will be understood when it is considered that empathy skill is one of the components of emotional intelligence. Goleman stated sub-areas that form social consciousness compounds of emotional intelligence are empathy, organizational consciousness and sense of service.

The individual who has empathic understanding will become aware of other people's points of views. This awareness will enable this person to understand and respect other people by placing himself or herself in other people's own realities (Deniz and Yilmaz, 2006, pp. 34-42). As Yilmaz (2003, pp. 56-59) transfers from Kalliopusko, study findings that compared the personality characteristics of adults whose empathy levels were high or low indicated that individuals with high levels of empathy had positive personality characteristics. It was found that individuals who had high empathy skills were affectionate, tolerant, and accepting themselves as they were. Moreover, it was discovered that people whose empathy skills were high had positive spiritual development and high self-esteem. Furthermore, it was stated that personal and social adaptation of children whose empathy skills were high was more positive compared to children with low empathy skills.

In Turkey, there are few studies which apply training program for developing empathy skills (Gemci, 2012; Sortullu, 2011; Yilmaz, 2003, pp. 98-105), and in these studies it was found that applied training programs increased empathy scores. Sahin and Akbaba (2010) investigated the effect of an empathy-training program on bullying in children and they observed that the program decreased their bullying levels. Empathy in gifted children (Akkan, 2012, pp. 20-28) was investigated in a comparative study that was conducted on 6-8 grade students; and their empathic orientation, life-satisfaction and their family lives were investigated according to their socio-metric status in two different academic environments. It was found that empathy levels of the students in acceptable status were higher. Another study (Uyaroglu, 2011, pp. 34-36) was conducted with gifted and normal primary school students to investigate the relationship between empathy skills and emotional intelligence of the students and their parents' attitude. It was found that as democratic attitude scores increased in mothers, empathy score increased in normal children; however, as democratic attitude increased, empathy score decreased in gifted children. It is interesting that while democratic attitudes of mothers increased empathy scores of normal children, it decreased empathy scores of gifted children. Furthermore, in another study by Koksall (2007, pp. 62-69) a program was developed to increase emotional intelligence of gifted children, and in this study it was found that an emotional intelligence training program which was developed for gifted children increased their emotional intelligence levels.

Feshbach (1984) prepared an empathy program with

the purpose of encouraging positive social behavior by organizing aggression behavior of primary school students. Moreover, in another study Feshbach (1978) investigated the correlation between empathy and four emotion states. These emotions were happiness, sadness, aggression and fear. In this study, it was found that empathy was mostly correlated with happiness, then sadness, and then aggressiveness and fear. In articles conducted abroad, empathy was mostly discussed with aggressiveness or bullying. While Lovett and Sheffield (2007, pp. 1-13) could not find a consistent relationship between empathy and aggression in children, they found a negative relationship in adolescents. In studies conducted by Bjorkqvist and Osterman (2000, pp. 191-200), it was seen that empathy decreased aggressive behaviors, and also there was a relationship between empathy and social intelligence. Jolliffe and Farrington (2011, pp. 59-71) found a relationship between low empathy and bullying in males, but they could not find a relationship in females. However, they detected a relationship between impulsivity and bullying in both males and females. In a study they conducted, Castillo, Salguero, Fernández-Berrocal and Balluerka, (2013, pp. 883-892) applied a program based on an emotional intelligence model with 590 adolescents who study in Spanish state schools and they found that the empathy scores of adolescents increased and their physical/verbal aggressiveness, anger, hostility, and personal conflicts decreased.

It is seen that most of the studies conducted abroad were based on Dabrowski's Overexcitabilities theory. The concept of empathy was included in these studies because it was one of the sub-headings of this theory. Dabrowski was one of the important individuals conducting studies on giftedness. As Ackerman (1997, pp. 125-143) said, Dabrowski structured his theory by observing his consultants who were artists, writers, gifted children and adolescents. His Overexcitabilities concept enabled us to understand gifted and highly talented children better. Dabrowski proposed that personal experiences had an effective role in development of their own excitabilities and he defined five different Overexcitabilities areas. These were; physical, sensorial, imaginative, intellectual, and emotional sensitivities. According to Dabrowski, these overexcitabilities enabled gifted individuals to make more sophisticated contact with the world. Dabrowski defined these five overexcitabilities in his "Positive Disintegration" theory as a part of high level of development. These overexcitabilities caused an energy overflow which might end up with advanced emotional and ethical development, and creative studies. Overexcitabilities was a genetic predisposition in the nervous system that responded to the stimuli more intensively, and since these sensitivities had the characteristics of empowerment, enrichment, fostering and increasing abilities, experiences were lived more intensely than usual (Tolan, 1999). As Tillier (1999)

conveyed, the fifth stage or level of Dabrowski's theory only included creative expressions and high talents. Those who reached this stage were the individuals who had a deep empathy and understanding. Bailey (2010) stated that in the fifth stage, individuals reached their ideal personality by having personal experiences and being at peace with themselves. With this stage, low motivation disappeared and superseded with higher forms of empathy, autonomy, and originality.

In another study conducted abroad, Lovecky (1992) emphasized discovering social and emotional aspects of giftedness in children. Longitudinal studies were conducted on life-satisfaction in gifted children. As a result of the studies, it was found that the gifted children with the highest life satisfaction were those whose parents encouraged them to learn how to develop empathy, and also the parents themselves who developed empathy for their children.

Briefly, in studies conducted in Turkey, it was seen that empathy training program was not applied on gifted children; only correlation or comparative studies were conducted with gifted children. So, applying a training program for developing empathy skills will be realized with the study for the first time.

The importance of empathy as a concept for interpersonal relationships cannot be denied. In a relationship, if the people can develop empathy for each other, that relationship becomes more easily friendship. Empathy is even more important for gifted children who are very likely to be misunderstood by their environment. As we stated before, it becomes difficult for gifted children to develop empathy since the people around them cannot develop empathy for them. Most of the researches state that it is important for gifted children to come together with children similar to them because these gatherings enable them to understand each other, which leads to a decrease in feelings of loneliness of gifted children. Moreover, for these children, these gatherings are beneficial for learning to develop empathy and to understand other people. As mentioned above, there is no study conducted on increasing empathy skills of gifted children in Turkey, and to fill this gap in this area, this kind of study and research is needed. Furthermore, in Turkey, there are no adequate number of studies about gifted or highly talented children, and no project has been developed for these children. It is thought that this type of study will contribute to the gifted children education.

### **Aim of the first study**

The first study aimed at administering an empathy-training program for gifted children with low empathy scores, and to test if their empathy skills improved.

### **Aim of the follow-up study**

This study aimed at testing the permanence of the effect

of an empathy training program which was previously administered 8 months ago to the gifted adolescents with low empathy scores.

### **Hypotheses of the first study**

Within the scope of the first study, four hypotheses below were tested.

1. There will be no significant difference between the pretest scores of the experimental group and control group.
2. There will be a significant difference between the posttest scores of the experimental group and control group.
3. There will be a significant difference between the pretest and posttest scores of the experimental group.
4. There will be no significant difference between the pretest and posttest scores of the control group.

### **Hypotheses of the follow-up study**

Within the scope of this study, three hypotheses were examined.

1. There will be a significant difference between the follow-up test scores of the experimental group and control group.
2. There will be no significant difference between the posttest and follow-up test scores of the experimental group.
3. There will be no significant difference between the posttest and follow-up test scores of the control group.

## **METHOD**

### **Research design**

This research design is an experimental study seeking to determine the effect and the permanence of an empathy skills training program on 6<sup>th</sup> and 7<sup>th</sup> grade gifted students. Bryant's Empathy Scale for Children, which was adapted to Turkish by Yuksel (2003) was administered to the students. Then, 16 students with empathy scores were below 10 were chosen, and these students were randomly separated into two as experimental and control groups. In this study, a pretest and posttest control group design was used. The Empathy Training Program, prepared by the researchers, was conducted with the experimental group once a week, for eight weeks. Each session lasted about two hours. No treatment was given to the control group. After the first study, a follow-up study was conducted after 8 months, and the difference between posttest and follow-up test scores were analyzed. The independent variable of the study was the empathy training program, and the dependent variable was the empathy levels of the students.

### **Participants**

The study group comprised 11-13 year-old students studying in 6<sup>th</sup>

and 7<sup>th</sup> grades attending the Enderun Gifted Children Center, which served under the Bagcilar Municipality. The sample was formed as the result of this procedure: "Empathy Scale for Children" adapted into Turkish by Yilmaz (2003) was administered to 60 students with IQ scores of above 130 and who studied in the Enderun center. Then students were ranked according to their scores, the names of the 16 students with lowest scores were put in a bag and 8 of them were randomly selected as the experimental and the other 8 as the control group. The lowest score for the test was set as 10 and lower by taking reference of Yilmaz's (the translator and adaptor of the scale into Turkish) own administration mean, which was 10.30 for the experimental group; 10.40 for the control group.

#### Data collection tool

Bryant (2003)'s "Empathy Scale for Children and Adolescents", adapted into Turkish by Yilmaz (2003), was used to measure empathy levels of the gifted children.

#### Empathy scale for children

The Empathy Scale for Children and Adolescents, developed by Bryant in 1982, adapted to Turkish by Yilmaz in 2003, was used. The internal consistency of the scale was .54 for first grades, .68 for fourth grades, and .79 for seventh grades. Its validity was done by comparing the scores of the first graders received from the scale to the scores they received from the Feschbach and Roe's (1968) Empathy Scale; a significant relationship was found at the level of .05. Furthermore, the scores of seventh graders received from the scale were compared to the scores they received from Mehrabian and Epstein's scale, and a significant correlation was found at the level of .001 (Yilmaz, 2003). The validity of the scale in Turkey was calculated with internal consistency coefficient and test-retest technique. Cronbach Alpha Coefficient was calculated through the scores obtained from the tests administered to 237 students in three primary schools found as .70. In test-retest method, the test was administered to the 89 students twice with 15 days interval, and the relationship between the obtained scores was calculated by Pearson Product-Moment Correlation Coefficient and found as  $r=.694$  ( $p<.001$ ) (Yilmaz, A., 2003). For testing validity, the test, which was administered to 237 students, was subjected to factor analysis with SPSS, Principal component analysis was made on the scale consisting of 22 items and single factorial solution was searched. It was found that factor loading of the items was gathered around the first factor. According to this, items with .245 and more factor loading were selected. Since factor loading of two items were below .245, these two items were discarded. In this form, the scale consisted of 20 items (Yilmaz, 2003).

#### Empathy training program

The development of the Empathy Training Program, benefited from the work of Morganett (2005), Erkan and Kaya (2005) and Altinay which included activity samples in group counseling. The program was prepared by the researcher by selecting cognitive therapy and reality therapy techniques as the baseline, which included the processes like informative talking and sharing, raising awareness, and changing false emotion and thinking patterns. Throughout the study, the purpose was to get the students in touch with their emotions with techniques like informing them about empathy, increasing their awareness about this subject, practical applications about understanding the feelings of the other person, competitions, inter-group discussions and evaluations, and sharing their memories.

## FINDINGS AND ANALYSIS

The first study was an experimental design study comprising experimental and control groups, using pretest and posttest design. The group consisted of 16 people randomly divided into two groups: experimental and control groups. 8 weeks training, which involved a semi-structured group therapy work was administered to the experimental group, and no treatment was given to the control group. Pretest and posttest were administered to both groups, one at the beginning of the training, and the other at the end of 8 weeks. In the second part of the study which was a follow-up study, the test was readministered to the same students, and posttest scores of the previous study and test scores of the follow-up study were statistically analyzed. The results of the both tests were calculated with SPSS 20 program. Since the size of our sample was small, instead of t-test, we used Mann-Whitney U and Wilcoxon Signed-Rank Test, which is a nonparametric test. Findings acquired as a result of the analyses are included respectively; first the results of the previous study, and then the results of the follow-up study.

#### Findings and interpretation of the first study

Firstly, mean and standard deviations of the scores of the students in the experimental and control groups from pretest and posttest are included in Table 1.

In Table 1, while there was a significant increase in the pretest and posttest scores of the students in the experimental group (from 7,62 to 12,37), there was only a small difference between the pretest and posttest scores of the students in the control group (from 9,37 to 10,12).

In order to see if inter-group differences and intra-group differences affected data in a significant level, the Mann-Whitney U test was used for inter-group difference, and the Wilcoxon Signed-Rank Test was used for intra-group difference. Comparison of the pretest scores of the experimental and control groups are depicted in Table 2.

When the comparison of the pretest scores of two groups are analyzed, it can be said that even though the students were randomly selected, the empathy scale scores of the students selected for the experimental group show a lower inclination compared to the control group. As expected statistically, there is a homogeneous structure between the two groups, that is, there is no significant difference between the two groups ( $Z= -1.94$ ,  $p= 0.52$  and  $p>.05$ ).

Results about comparison of the posttest scores of the two groups according to Mann-Whitney U test are depicted in Table 3.

When Table 3 is analyzed, it is seen that there is no significant difference between the posttest scores of the experimental and the control groups as it was in the pretest scores ( $Z= -1.626$ ,  $p=0.10$  and  $p>.05$ ). Even

**Table 1.** Arithmetic average and standard deviation of the empathy scale pretest and posttest scores of the experimental and control groups.

Group	Pretest			Posttest		
	N	$\bar{X}$	SS	N	$\bar{X}$	SS
Experimental	8	7,62	1,84	8	12,37	3,38
Control	8	9,37	1,06	8	10,12	0,35

**Table 2.** Comparison the pretest scores of the students in the experimental and control groups.

Group	N	Ranking average	Ranking sum	U	Z	P
Experimental	8	5,88	47,00	14,50	-1,94	0,52
Control	8	11,13	89,00			

**Table 3.** Comparison of the posttest scores of the students in the experimental and control groups.

Group	Pretest			Posttest		
	N	$\bar{X}$	SS	N	$\bar{X}$	SS
Experimental	8	7,62	1,84	8	12,37	3,38
Control	8	9,37	1,06	8	10,12	0,35

**Table 4.** The difference between pretest and posttest scores of the experimental and control groups.

Group	Pretest			Posttest		
	N	$\bar{X}$	SS	N	$\bar{X}$	SS
Experimental	8	7,62	1,84	8	12,37	3,38
Control	8	9,37	1,06	8	10,12	0,35

though the experimental group showed a significant increase within itself, mean of the experimental group was smaller since the experimental group was randomly formed of the students with lower scores while separating the sample into two as the experimental and control groups. So, since the scores of the experimental group have increased within itself, and in parallel with this, there has been no difference in the control group's scores, test scores of the experimental and control groups have got closer to each other, and thus, no significant difference has occurred between the two groups. However, because the main objective of this study was to have an increase in low empathy scores of the gifted students at the end of the empathy training program, the most important statistical result with regard to the present study is the point if there has been any significant difference between the pretest and posttest scores of the experimental and

control groups. For this reason, we need to evaluate the results of Wilcoxon Signed-Rank test.

As it is in the Table 4, while there has been a significant difference in the pretest and posttest scores of the experimental group ( $Z = -2.52$ ,  $p = 0.01$  and  $p < .05$ ), no significant difference has been found between the pretest and posttest scores of the control group ( $Z = -1.89$ ,  $p = 0.59$  and  $p > .05$ ). As a result, findings indicate that the empathy-training program led to a significant increase in low empathy scores of the gifted students.

### Findings and interpretation of the follow-up study

Firstly, mean and standard deviations of the scores students in the experimental and control groups obtained at the end of the empathy training program and from the follow-up test, which was administered 8 months later, are included in Table 5.

As seen in Table 5, there is a small difference between the posttest and follow-up test scores of the students in the experimental group in favor of the follow-up test scores (from 12,37 to 12,87), and similarly, a small difference was found between the posttest and follow-up test scores of the students in the control group in favor of the follow-up test scores (from 10,12 to 10,25). These results indicate that the effect of empathy training program is permanent, because there has been no decrease in the empathy scores of the students in the experimental group despite the time interval, and even there was a small increase.

Results on the comparison of the follow-up test scores of the two groups according to the Mann-Whitney U test are included in Table 6.

When Table 6 is examined it is seen that the follow-up test scores are meaningful at confidence level of .10, similar to the posttest results ( $Z = -1.65$ ,  $p = 0.09$  and  $p > .05$ ). Since no other variables other than time interval

**Table 5.** Arithmetic average and standard deviation of the empathy scale posttest and follow-up test scores of experimental and control groups.

Group	Pretest			Posttest		
	N	$\bar{X}$	SS	N	$\bar{X}$	SS
Experimental	8	7,62	1,84	8	12,37	3,38
Control	8	9,37	1,06	8	10,12	0,35

**Table 6.** Comparison of the follow-up test scores of the students in experimental and control groups.

Group	Pretest			Posttest		
	N	$\bar{X}$	SS	N	$\bar{X}$	SS
Experimental	8	7,62	1,84	8	12,37	3,38
Control	8	9,37	1,06	8	10,12	0,35

has changed in the follow-up study, the result in the posttest scores is replicated as expected.

Finally, the Wilcoxon Signed-Rank Test was administered to test if there was a difference between the posttest and the follow-up test scores of the experimental and control groups within themselves. Table 7 includes the results of both the experimental and control groups.

When Table 7 is examined it is seen that there was no significant difference between the posttest and follow-up test scores of the experimental group ( $Z = -1.30$ ,  $p = 0.19$  and  $p > .05$ ), and similarly, no significant difference was found between the posttest and follow-up test scores of the control group. As a result, obtained findings indicate that the effect of an empathy training program on the gifted students is still permanent. This indicates that applied empathy-training program was an effective study. Moreover, the fact that there was an increase in the empathy scores, though it was small, shows that the applied empathy program has a long-term effect and it implies that it is important to investigate if the empathy skills of gifted children can be developed with similar studies designed to develop empathy skills.

## DISCUSSION

This study was carried out based on the consideration that in some gifted children emotional development may fall behind cognitive development, and thus gifted children may have difficulty in their daily interactions. In this sense, in the first study, we aimed at conducting a study both for identifying the empathy levels of the gifted children and also for testing if empathy skill which is seen as a part of emotional development can be developed through an applied empathy program administered to these students. Secondly, the effectiveness of an applied

empathy training program was examined with a follow-up study 8 months later. First hypotheses formed as a part of the study were tested by using Mann-Whitney U and Wilcoxon Signed-Rank test. According to Mann-Whitney U test, the hypothesis claiming that there will be no significant difference between the pretest scores of the experimental and control groups was confirmed (Table 2), but the hypothesis claiming that there will be a significant difference between posttest scores of the experimental and control groups was not confirmed (Table 3). As stated in the findings, since the empathy scores of the experimental group were lower than the control group by chance, increase in the scores of the experimental group could not reach a point to make a difference between the two groups (Table 1). Moreover, although no training program was administered to the control group, scores of the control group increased a little as well. This result may stem from the fact that these students come together in the same institution on determined days of the week and they are in touch all the time. However, increase in the scores of the experimental group is significantly higher and this result was also supported with Wilcoxon Signed-Rank Test. The other two hypotheses analyzed by the Wilcoxon Signed-Rank test; there will be significant difference between the pretest and posttest scores of the experimental group; and there will be no significant difference between the pretest and posttest scores of the control group" were confirmed (Table 4). In other words, a significant increase occurred in the posttest scores of the experimental group, and no significant difference occurred in the posttest scores of the control group. When this situation is taken into consideration, it can be said that an applied empathy psycho-training program positively affected the empathy skills of the students in the experimental group positively. The effect of a psycho-training program may be seen as an expected result in consequence of performed applications. That is, throughout the applications, it was ensured that the students gained awareness of their emotions, both their own and others; making connections with their emotions and thoughts, maintaining the awareness gained in the group with homework, performing "here-and-now" learnings with plays and competitions in the group, encountering with their various emotions through the dynamic nature of group activities, and experiencing these emotions within the group. Naturally, all of these processes contributed to an increase in empathy skills of the students.

When related literature was examined, there were studies indicating an increase in empathy scores as a result of empathy training programs (Gemci, 2012; Sortullu, 2011; Yilmaz, 2003), similar to the findings of the present study. In another study which aimed at increasing empathy scores to decrease aggression (Castillo and others, 2013), it was observed that an applied training program increased empathy scores significantly. However, none of these studies were conducted with gifted children, so it can be said that the



**Table 7.** The difference between posttest and follow-up test scores of experimental and control groups.

Group	Tests	N	$\bar{X}$	SS	Z	P
Experimental	Posttest	8	12,37	3,38	-1,30	0,19
	Follow-up Test	8	12,87	3,52		
Control	Posttest	8	10,12	0,35	-0,57	0,56
	Follow-up Test	8	10,25	1,16		

present study is a pioneer study.

Furthermore, the nature of the study, open to group interaction, provides knowledge about gifted children. In this study a parallel situation with Dabrowski's "overexcitability" theory was observed. While conducting the posttest, the students recognized this test and made predictions about why this test was re-administered and showed a sensibility and resistance since they understood that their possible change was being evaluated. A student expressed this resistance and sensibility explicitly by saying, "I have learned a lot here, but I will not change my answers." The fact that the posttest scores of two students who did not participate in the last session and took the test later were notably higher than their friends confirms this sensibility. In other words, these children knew very well how to react, but they perceived themselves as experimental subjects and showed a resistance to exhibit their own reactions. In spite of the students' thoughts and interpretations, there were changes in their answers; however, if such a resistance had not been present, results would have been much higher. Moreover, male students in the group did not give their answers as they really felt and made a reduction by showing reasons like "Men do not cry". However, when the applied test items to which children responded as "Men do not cry" were analyzed thoroughly, it was seen that it was a point that needs to be emphasized. When test items are examined comprehensively, empathy is mostly evaluated by focusing on only one direction like crying and filling with tears, and so the test does not have adequate emotional richness variety to identify empathy. Therefore, with this study, it can also be stated that the test needs to be re-evaluated in this sense. The interpretation of the students concerning the test is important since it indicates that when studying with gifted children you will also learn something while teaching.

The second study was planned as a follow-up study to determine the permanence of the effect of a psycho-training program, which was applied to develop empathy skills of gifted students.

Hypotheses of the study were tested by using the Mann-Whitney U and Wilcoxon Signed-Rank tests. According to the Mann-Whitney U test, the hypothesis, there will be a significant difference between follow-up

test scores of the ^ experimental group and the control groups was confirmed (Table 6). The other two hypotheses which were analyzed with the Wilcoxon Signed-Rank test. There will be no significant difference between posttest and follow-up test scores of the experimental group and there will be no significant difference between posttest and follow-up test scores of the control group were confirmed (Table 7). As a result, the increase in the posttest scores of the experimental group at the end of applied the empathy training program was still permanent in the follow-up test scores which were applied 8 months later, and there was a positive increase in the follow-up scores though small. It was seen that in spite of time interval, increase in the scores of the students in the experimental group, obtained at the end of the empathy training program, were still permanent. In the control group, there were small increases in the scores of both studies; however, the difference was not significant both between the pretest and posttest scores and between the posttest and follow-up test scores. As for the small increase in the empathy scores of the students in the control group, we can say that positive change in the scores of the experimental group might have influenced the scores of the students in the control group positively because the students come together in the same institution and they are always in touch with each other. Furthermore, it should be questioned if conducting other similar studies can carry developmental level of the experimental group a step forward. The follow-up study results of the experimental group does not indicate a decrease but it even shows a small increase, so this type of study should be supported.

In conclusion, according to the findings of the study, there is a significant increase in empathy skills of the experimental group compared to the control group. Therefore, it can be said that the applied empathy skills psycho-training program was effective in increasing empathy skills of the students in the experimental group. This result shows a consistency with other experimental studies conducted to develop empathy skills both in Turkey [Gemici, 2012; Sortullu, 2011; Yilmaz, 2003]] and abroad [Feshbach, 1984; Castillo et al., 2013]. Even though these studies were not conducted with gifted students, the consistency of the results with these studies once again indicates the benefit of group work in



developing empathy skills. Moreover, in the follow-up study, which was conducted 8 months later, it was found that the effect of the empathy training program on the experimental group was still permanent. This result obtained from a follow-up study is important for sharing the effect of the first study.

## IMPLICATIONS

This study indicates that empathy-training programs aiming at developing empathy skills are effective for both gifted children and this age group. There was an increase in the empathy scores as a result of the training program which implies that it would be useful providing these types of studies in school counseling centers. Applying this kind of studies in schools widely will contribute to the development of empathy skills and social intelligence of students in a positive way. Moreover, gifted children are viewed as the driving and developer force of society, the necessity of increasing this type of study with such children will be understood, since the number of studies about gifted children is still inadequate in Turkey.

This study was conducted with gifted adolescent students; however, in order to test the effectiveness of the training program, it is important to replicate similar studies with different age groups and different samples. Furthermore, to be able to apply the empathy-training program to many groups, a “practitioner training program” could be formed to orient the training of experts with the competence of applying the program.

## Conflict of Interests

The author has not declared any conflicts of interest.

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