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The Effects of Conflict Resolution and Peer Mediation Education on Students' Empathy Skills*

Çatışma Çözümü ve Akran Arabuluculuk Eğitiminin Öğrencilerin Empati Becerileri Üzerindeki Etkileri

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Abstract

The purpose of this research was to examine the effects of a Conflict Resolution and Peer Mediation (CRPM) training program on the 10-11 year-old elementary school students' empathy skills. The research was carried out using a pre-test/post-test, quasi-experimental design. The study group included 585 students; 336 in the experiment and 249 in the control group. Statistically significant differences were found between the pre-test and post-test means of the experiment group. There was a significant difference between the post-test scores of the boys in the experiment and the control group although no such difference was found among the girls who participated in the study. The gain score means of the experiment and the control group, and of the boys' in the experiment and the CRPM training program might be effective in increasing the elementary school students' levels of empathy.

Key Words: Empathy skills, conflict resolution, peer mediation

Öz

Bu araştırmanın amacı, Anlaşmazlık Çözümü ve Akran Arabuluculuk Eğitimi programının 10-11 yaş ilköğretim öğrencilerinin empati becerileri üzerindeki etkilerinin incelenmesidir. Araştırma öntest-sontest, yarı-deneysel bir desen kullanılarak gerçekleştirilmiştir. Çalışma grubu, 336'sı deney grubunda ve 249 kontrol grubunda olmak üzere 585 öğrenciden oluşmuştur. Deney grubunun öntest ve sontest sonuçları arasında istatistiki olarak anlamlı farklar bulunmuştur. Deney ve kontrol grubunda yer alan erkek öğrencilerin öntest ve sontest puanları arasında anlamlı farklar bulunmasına karşın, kızlar arasında böyle bir fark görülmemiştir. Deney ve kontrol grubu öğrencilerinin ve yalnız erkek öğrencilerin kazanç puanlarında anlamlı farklar bulunmuştur. Araştırmanın sonuçları Anlaşmazlık Çözümü ve Akran Arabuluculuk Eğitimi programının öğrencilerin empati düzeylerini artırmada etkili olduğu varsayımını desteklemektedir.

Anahtar Sözcükler: Empati becerileri, anlaşmazlık çözümü ve akran arabuluculuk

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Introduction

Interpersonal conflicts are natural and unavoidable in schools where, in each classroom, 20-40 students with different cultural backgrounds, values, personalities, objectives, and different stages of psychological, moral and cognitive development are randomly brought together for an elemental purpose, namely, education. This communal activity naturally leads to interpersonal conflicts and disagreements. More often than not, students may resort to aggressive behaviour to solve their conflicts and disagreements, or, in other words, their shared problems. Therefore, aggressive behaviour as a problem solving method or self expression is a natural and inevitable part of school settings. How these unavoidable and natural interpersonal conflicts should be handled, of course, is an important educational concern.

Schools are not merely venues where a certain body of knowledge is transferred to students and received by them, but are also places where vital life skills, such as interpersonal conflict resolution skills are introduced and acquired. Without doubt, schools are one of the most elemental places for social development to occur. The interpersonal conflicts and acts of violence students experience provide a natural opportunity for them to learn non-violent conflict resolution methods and help them socialize through conflict resolution processes. Therefore, schools are the best settings for violence prevention (Farrell, Meyer, Kung, & Sullivan, 2001) and conflict resolution and peer mediation programs (Johnson & Johnson, 1995a) to be implemented. Johnson and Johnson (1994) claim that students are socialized into standard and widely used conflict resolution procedures and skills in schools.

Interpersonal conflicts, as an indispensible element of school culture, can be resolved either through aggressive behavior or constructive conflict resolution methods. Constructive conflict resolution can only be successful if initiated by an emphathetic frame of mind. Empathy, as a skill, is a highly critical component of any interpersonal conflict resolution process. Constructive conflict resolution without empathy is rather difficult to accomplish, especially for younger students. It is an essential educational function of schools to help students acquire constructive and peaceful interpersonal conflict resolution skills through empathy to maintain healthy interpersonal relationships throughout their lives. Empathy skills appear to be crucial in constructive, peaceful, and restorative resolution of interpersonal conflicts. Townley (1994) argues that the field of conflict resolution in education should consider including empathy training if transforming schools is to be accomplished. Similarly, Lupton-Smith and Carruthers (1996) emphasize that conflict resolution and peer mediation programs should include lessons that will encourage students to develop empathy skills and that students must be actively involved in demonstrating and practicing these skills. Conflict resolution and peer mediation education utilizing empathy skills will doubtlessly contribute to conflict resolution processes, as well as developing one's empathy skills. Therefore, it is the main objective of this study to determine whether students' empathy skills develop as a result of such training.

Empathy is often viewed as a fundamental motivator in eliciting altruism and inhibiting aggressive acts (Zahn-Waxler & Radke-Yarrow, 1990, as cited in Thompson & Gullone, 2003). Empathy's potential to function as a protective factor against aggression is emphasized by Thompson and Gullone (2003) who argue that empathy provides immediate and proximal feedback discouraging aggressive acts by making the perpetrator aware and cognizant of, and possibly sympathetic toward the victim's suffering. Similarly, Schwebel, (2006) claims that empathy calls for understanding what is going on in the minds of one's opponents and recognizing their human side, including their fears and insecurities. Thus, empathy has both affective and cognitive components (Thompson & Gullone, 2003). Oswald (1996) defines the affective dimension of empathy, with a focus on affective responsiveness, as vicarious

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emotional response to the emotion of another; and conceptualizes empathy as vicarious affective arousal. On the other hand, Oswald (1996) also defines the cognitive dimension of empathy as the ability to recognize and understand the thoughts of others, labeling it cognitive perspective taking. Perspective taking is defined by Gehlbach, (2004) as the ability to understand how a situation appears to another person and how that person is reacting cognitively and emotionally to the situation. Furthermore, it is the ability to put oneself in the place of others and recognize that other individuals may have points of view different from one's own. Gehlbach (2004), reports from the findings of other research that perspective taking, as the cognitive dimension of empathy, is often thought to be a critical component in conflict resolution and student mediation programs and violence prevention. In addition, perspective taking is associated with both aggression inhibition and facilitation of prosocial responses, and the inverse relationship between aggression and perspective taking has been demonstrated in a variety of studies (Richardson, Green, & Lago, 1998). The same authors also found that dispositional perspective taking is correlated with nonegocentric, constructive responses to interpersonal conflicts.

In light of the above discussion concerning conflict resolution and empathy, and the interaction between the two, this study aims to investigate the effects of conflict resolution and peer mediation training utilizing empathy skills on students' level of empathy skills. The decision to adopt such an approach was based on the assumption that a direct and/or indirect relationship between conflict resolution and empathy exists. During the research, students were not given empathy education in the formal or didactic sense. The main reason for this was the belief that empathy is considered to be a prerequisite for any constructive conflict resolution process. The second reason was that empathy skills embedded in the conflict resolution processes of interpersonal conflicts would prove to be more effective and realistic, and thus, would be more readily welcomed by the students and would more likely result in the implicit elicitation of empathy skills. Therefore, the conflict resolution training program utilizing empathy skills implemented in this study was believed to have had desirable effects on students' conflict resolution skills, as well as their empathy skills.

The purpose of this research was to develop a "Conflict Resolution and Peer Mediation" (CRPM) training program that would best suit the Turkish cultural and educational setting for a more constructive, peaceful, and remedial management of the conflicts and disagreements of fourth- and fifth-year elementary school students (10-11 year-olds). A second objective of the research was to examine the effects of the CRPM training program developed on the level of empathy of the elementary school students.

Method

The study was carried out using a pre-test/ post-test, quasi-experimental-with- a-controlgroup research design. Since the study was a whole-school-based research and included extensive training sessions throughout the semester (18 weeks), randomized assignment of classrooms or students was not possible. Since random assignment is neither feasible nor under the control of the experimenter in real world environments, a quasi-experimental design was used.

One-tailed, unidirectional hypotheses of the research were:

- 1. The level of empathy of the students who received CRPM Training is higher than the students who did not.
- 2. The level of empathy of the boys who received CRPM Training is higher than the boys who did not.

- 3. The level of empathy of the girls who received CRPM Training is higher than the girls who did not.
- 4. Gender and grade affect the level of empathy of the students who received CRPM Training Program.

Participants

The study was conducted in three elementary schools. For such a large scale, whole-schoolbased study, the required permission had to be obtained from the Turkish Ministry of Education, Research and Development department which rigorously monitors a wide range of ethical and research standard issues. Following the approval of this centre, requests from schools which reported an increased number of conflicts and higher incidence of interpersonal violence among students, and which were interested in such intervention programs were reviewed, and three elementary schools which offered whole-school participation, and ensured administrative commitment, as well as parent-teacher association and student body support were selected. The schools where the study was conducted serve students with lower socioeconomic levels. Majority of the students come from impoverished families that had migrated from various parts of Turkey. The experiment group of the study included 336 students (167 girls and 169 boys) and the control group had 249 (121 girls and 128 boys), totalling 585 students. The experiment group consisted of 165 fourth grade and 171 fifth grade students. The control group consisted of 129 fourth grade and 120 fifth grade students.

Independent variable

The independent variable of the study was the 'Conflict Resolution and Peer Mediation' (CRPM) Training Program. The CRPM program was developed based on current literature in the field, such as by Simpson (1998), Teolis (1998), Johnson and Johnson (1995a), Johnson and Johnson (1995b), Cohen (1995), Schrumpf, Crawford, and Bodine (1997a), Schrumpf, Crawford, and Bodine (1997b), Bodine, Crawford, and Schrumpf (2002a), Bodine, Crawford, and Schrumpf (2002b), and Girard and Koch (1996). The independent variable has been devised by the researchers as a 31-class-hour training program covering four basic skills. These are; understanding the nature of interpersonal conflicts (nine hours), communication skills (four hours), anger management skills (six hours), and interpersonal conflict resolution skills (12 hours) focusing on negotiation and peer mediation skills. The independent variable of the study (the CRPM training program) was built around four major themes:

Understanding the nature of interpersonal conflicts: In this section, students were offered information on the skills related to the nature of conflicts and disagreements as natural parts of interpersonal relationships. The training program included the following: associations of conflicts, understanding interpersonal conflicts, learning the benefits of conflicts, understanding the kinds of conflicts, understanding the sides of conflicts, understanding the sources of conflicts, analysing the interpersonal conflicts, understanding the conflict resolution principals, studying the conflict resolution strategies and techniques, and understanding the positive and negative results of conflicts.

Communication skills: In this section, students were offered help in developing the skills necessary for constructive, peaceful and remedial conflict resolution of interpersonal conflicts. The training program included: active listening, I-messages, empathy, self-expression, welcoming criticism, and respecting differences.

Anger Management Skills: Emotions are always present in interpersonal conflicts and disagreements. The most common emotion present in interpersonal conflicts and disagreements

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is anger. Students were offered help in developing skills necessary to effectively manage the destructive emotions they have during the conflict process. Thus, students were expected to develop skills necessary to express their anger in a more constructive and peaceful way, and at the same time, manage the other person's feeling of anger. These skills include; recognizing one's emotions, expressing one's emotions, understanding the other person's sentions, self-control, anger management, nature of anger, the kind of behaviour that triggers interpersonal relationships, reactions to anger, how to manage our anger, and how to manage another person's anger.

Interpersonal Conflict Resolution Skills: Students were offered help in developing the cognitive and emotional skills necessary to resolve the conflicts they have with their peers or grown ups in a constructive and peaceful manner. Thus, training programs on the following major issues were developed:

a) Conflict Resolution Skills (Problem solving skills): Requesting that the shared problem be resolved through conflict resolution (problem solving discussions), determining the demands of each side and their reasons, determining the emotions of each side and their reasons, assuring the other side that their demands, emotions, and reasons are understood through empathy and active listening techniques, producing and evaluating resolution alternatives that reflect mutual interests, creating a just, fair and logical agreement (win-win).

b) Peer Mediation Skills: Ending the aggression and calming the students; making sure that both sides are ready to seek mediation, facilitating the conflict resolution (problem solving) process (as explained in the previous item), contracting the agreement (win-win), and follow-up to the agreement.

Dependent variable

The dependent variable of this study was the level of empathy of students. The dependent variable was measured by the 'Empathy Scale'. The Empathy Scale used in the study was developed by Bryant (1982), and adapted to Turkish culture by Yilmaz (2003). It's a dichotomic scale including 20 items. Participants answer the questions by marking 'Agree' (1), or 'Disagree' (0). Hence, the maximum score that can be attained in the instrument is 20, a higher score indicating higher level of empathy.

The validity, construct validity, and content validity of the scale were analyzed. Internal consistency (Cronbach's alpha) of the scale was .70. Test-retest method was used to measure reliability coefficient and the correlation was found .70.

Procedures

The study started in three different elementary schools in 2006-2007 academic year, in September. It was concluded with the completion of the training of the students at the end of the fall semester. Pre-test was administered on the first day of school. The 31-hour training program developed by the authors (researchers) was presented to the students in their classrooms by the authors themselves. The program material consisted of a teachers' book and a student book. The training involved individual learning, whole-class teaching, and pair-work and group-work activities. Scenarios were provided and role-play activities were carried out frequently. Before working with students, teachers were also trained to ensure a parallel between the teachers and the students in order to achieve school-wide reception of the program. By the end of the fall semester of 2006-2007 academic year, the training was completed and post-test was administered during the first two weeks of the spring semester.

Analysis of Data

In order to analyze the differences between the experimental and the control group, singletailed *t*-test for independent samples was performed. A single-tailed paired *t*-test was used to determine whether there were significant differences between the group pre-test means and the group post-test means on the dependent variable. The effect sizes were calculated on post-tests and gain scores. Then, Analysis of Covariance (ANCOVA) was used to test whether the students' gender and grade had any effect on the level of empathy scores, after removing the variance for pre-test (covariate).

Results

Findings of the research will be presented and discussed in terms of the hypotheses stated above. To test the first three hypotheses, independent *t*-tests were carried out. Results are presented in Table 1.

Table 1.

Comparison of the Post-Test and Gain Scores of the Experiment and the Control Group

		Group	n	Mean	SD	Т	DF	Sig.	
Total	Post-test	Experiment	336	13.39	3.04	1.59	583	p (One-Tailed) = 0.056>0.05 difference	
		Control	249	12.97	3.35			not significant	
	Gain	Experiment	336	1.13	3.18	1.67 583		p (One-Tailed) = 0.047<0.05 difference	
	Score	Control	249	0.686	3.25	1.07	363	significant	
Boys	Post-test	Experiment	169	12.79	3.07	1.70	295	p (One-Tailed) = 0.045<0.05 difference	
		Control	128	12.14	3.56	1.70		significant	
	Gain	Experiment	169	1.18	3.26	1.64	295	p (One-Tailed) = 0.05=0.05	
	score	Control	128	0.54	3.32	1.04	295	p (One-Tailed) = 0.05=0.05	
Girls	Post-test	Experiment	167	14.00	2.89	0.42	286	p (One-Tailed) = 0.335>0.05 difference	
		Control	121	13.85	2.86			not significant	
	Gain	Experiment	167	1.08	3.10	0.68	286	p (One-Tailed) = 0.248>0.05 difference	
	score	Control	121	0.83	3.17	0.00	200	not significant	

Since the pre-test level of empathy scores of both groups were not statistically different at the beginning of the experiment, only post-test and gain scores were reported. When the post-test empathy scores of the experiment and the control group were compared, but no statistically significant difference was found. The effect size was rather small; 0.13. Because of the existence of unidirectional hypotheses, one-tailed significance tests were reported. Although the results of the *t*-test did not confirm the hypothesis statistically, the level of empathy scores of the experiment group did increase slightly compared to the control group. In addition to this analysis, gain scores (computed by subtracting the pre-test scores from the post-test) for both groups were also compared. When the gain score means of the experiment and the control group were compared using an independent sample *t*-test, a statistically significant difference was found to be 0.14.

Independent *t*-tests were also carried out for each gender. When the post-test empathy scores of the boys in the experiment and the control group were compared, a statistically significant difference was found. The effect size was 0.2. In addition to this analysis, gain scores for both groups were also compared. When the gain score means of the boys in the experiment and the control group were compared using an independent sample *t*-test, no statistically

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significant difference was found between the experiment and the control group. The effect size was again 0.2.

When the post-test empathy scores of the girls in the experiment and the control group were compared, no statistically significant difference was found. The effect size was 0.05. In addition to this analysis, gain scores for both groups were also compared. When the gain score means of the experiment and the control group were compared using an independent sample *t*-test, no meaningful difference was found between the experiment and the control group. The effect size was found to be 0.08.

A comparison of the pre-test and post-test scores of students in the experiment group is presented in Table 2. A statistically significant difference was found between the pre-test and the post-test scores of the experiment group, only the boys in the experiment group, and only the girls in the experiment group.

Table 2.

Comparison of the Pre-Test-Post-Test Scores of the Experiment Group
Pre-test Post-test T DF

		n	Pre-test		Post-test		Т	DF	Sig.	
		n	Mean	SD	Mean	SD	1	DI	Sig.	
Total	Experiment group	336	12.26	3.09	13.39	3.04	-6.54	335	p (One-Tailed) = 0.000<0.05	
									difference significant	
Boys	Experiment group	169 1	11 61	3 14	.14 12.79	3.07	-4.70	168	p (One-Tailed) = 0.000<0.05	
			11.01	5.14					difference significant	
Girls	Experiment group	167	12.91	2.90	14	2.89	-4.54	166	p (One-Tailed) = 0.000<0.05	
									difference significant	

To test the last hypothesis 'Gender and grade affect the level of empathy of the students who received CRPM training program', analysis of covariance was used to find out the effects of gender and grade of the students in the experimental group on their level of empathy scores. When we look at the descriptive statistics of the participants, post-test level of empathy score mean of the girls in the fourth grade is 13.80, and of the ones in the fifth grade is 14.21. The mean for all the girls is 14.00. Post-test level of empathy score mean of the boys in the fourth grade is 12.89. The mean score for all the boys is 12.79. The general post-test score mean for the fourth graders is 13.26, and 13.53 for the fifth graders.

Table 3.

Two-way ANCOVA Analysis of the Aggression Scale Post-Test Scores of the Experiment Group

Source	Sum of Squares	DF	Mean Squares	F	Sig.
Pre-test	578.399	1	578.399	79.820	0.000
Gender	6.411	1	6.411	0.885	0.031
Grade	33.924	1	33.924	4.682	0.348
Gender X grade	5.815	1	5.815	0.803	0.371
Error	2398.527	331	7.246		
Total	3108.560	335			

The analysis of covariance was utilized to measure the effects of gender and grade on the level of empathy of the students who received the CRPM training program, taking the pre-test scores as the covariate variable, yielded the result that the gender variable is influential (F(1,335)=4.822, p=0.031<0.05) on the level of empathy of the students (see Table 3). When the students' pre-test scores were extracted through analysis of covariance, the difference between the post-test score means of the boys and the girls was found to be statistically significant, and

the girls' level of empathy scores were found to be higher. Another result of the analysis was that the variable of grade was not influential on the level of empathy of the students F(1,335)=0.885, p=0.348>0.05).

When the students' pre-test scores were extracted through analysis of covariance, the difference between post-test score means of the fourth and fifth graders was not found to be statistically different. Furthermore, it was also seen that the level of empathy of the boys and the girls is independent of the grade level F(1, 335)=0.803, p=0.371>0.05). No interaction between the gender and grade of the students was found.

Discussion

Some results on the effectiveness and non-effectiveness of the program on the empathy skills of the elementary school students were obtained. First, there was a difference between the posttest scores of the experiment and control group, albeit not statistically. Second, the difference between the gain scores of both groups was also statistically significant. Finally, there was an increase in the post-test empathy scores of the experimental group (whole group, only boys and only girls). These results indicate that the independent variable of the study, the CRPM training program, was effective in increasing the empathy levels of the students. Empathy as a byproduct of conflict resolution and peer mediation training has also been documented by several other researchers in the field. Schmitz (1994); Tolson, McDonald, and Moriarty (1992); Weir (1995) (as cited in Williamson, Warner, Sanders, and Knepper, 1999) note that during the mediation process students gain an understanding of how their behavior might have led to the conflict and they become proactive problem solvers and responsible citizens. The process allows them to identify the sources of conflict, discuss these in a systematic manner and develop empathy for the other person's position. Gehlbach (2004) states that empathy enables one to cognitively and emotionally understand how the other person sees the problem, and therefore, identify with the other person altruistically. Thus, interpersonal conflicts are resolved in a more constructive, peaceful, and restorative manner. Similarly, according to Richardson et al. (1998), empathetic skills lead to more nonegocentric behaviour and constructive responses. Therefore, empathy skills are essential in the resolution of interpersonal conflicts and whether this process resorts to violence or not. Students can be helped to develop both conflict resolution and empathy skills through CRPM training with an indirect emphasis on empathy skills. Zahn-Waxler and Radke-Yarrow (1990, as cited in Thompson & Gullone, 2003) state that empathy skills reduce the aggressive behaviour of individuals. Therefore, the result obtained in this study indicating that conflict resolution training increased students' empathy skills also entails indirectly preventing potential future aggressive behaviour of the students.

The CRPM training program offered to boys was found to increase their empathy scores significantly. A similar finding was reported by Tolson and McDonald (1992) stating that boys receiving conflict resolution and peer mediation training benefited more from the program than the girls did. Analysis made for the girls yielded no significant difference between the post-test and the gain scores of the experiment and the control group. Thus, no meaningful result was found on the effectiveness of the training program on girls. Insignificant results in girls may result from the fact that girls tend to behave in accordance with society's expectations and the cultural gender roles prescribed for them which require them to recognise and respond to others' emotional expectations with compassion more than the boys should, and naturally be less predisposed to aggression.

The analyses to determine whether the effects of a CRPM training program differ according to gender and grade yielded some striking results. Although the mean post-test empathy score of the

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girls was higher than that of the boys, the increase in boys' empathy scores as a result of the training was more pronounced. However, the level of empathy scores of the students did not differ according to their grade levels. In addition, no interaction between the two variables was found.

Although numerous statistically significant differences were found in the analyses of the variables in the study, the effect sizes were relatively small. This may be due to the fact that the CRPM training was introduced for the first time in a school where violence and conflict had become commonplace. Observable change in behaviors may not be immediately noticeable in such a setting, especially within confinement of one semester's length. The demographic characteristics of the study group might be another factor in the small magnitude of change. Majority of the students come from impoverished families that had migrated from various parts of Turkey, and display an increased tendency to adhere to destructive conflict resolution strategies. Resistance to change and acculturation is also more pronounced among these students who are exposed to destructive conflict resolution models in their day-to-day familial and interpersonal relationships outside the school. Despite the small magnitude of change, the statistically significant differences observed and the increase in the empathy scores of the experiment group as a result of the CRPM training indicate that the program may potentially be useful in Turkish context which may be evident in the increased use of more constructive conflict resolution strategies.

Conclusion

The results of the study may provide evidence that the CRPM training utilizing empathy skills did increase the empathy levels of students. The increase observed in the empathy scores of the students who received training supports our claim that the CRPM training program had some direct effects on empathy. The rationale behind the idea that empathy skills could be developed through conflict resolution education is that empathy skills could be elicited more effectively while handling day-to-day, interpersonal conflicts through CRPM. Hence, students might be able to develop their conflict resolution and empathy skills simultaneously in a natural context.

In conclusion, conflict resolution and peer mediation (CRPM) training programs adressing empathy skills will help students develop perspective taking skills, and altruistic and prosocial behaviour. Therefore, CRPM training may prevent students, especially boys, from aggressive behaviour, and enable them to handle their interpersonal conflicts more constructively and peacefully in and out of school.

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