



## The Investigation of the Effect of Negotiation and Mediation Training on Interpersonal Problem Solving Approaches and Anger of Adolescents \*

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### Abstract

The aim of this research is to investigate the effect of negotiation and mediation training on interpersonal problem solving and anger of adolescents. In the research, pretest-posttest control group quasi-experimental design was used and there were 14 subjects in the experimental group and 14 subjects in control group. Interpersonal Problem Solving Inventory, Trait Anger and Anger Expression Scale were used as data collection tools. A training program including 30 course hours and 15 activities were applied to the experimental group. The control group didn't receive any application. The significance of pretest-posttest scores of the subjects was analyzed by using Mann Whitney U test. Research findings indicated that negotiation and mediation trainings had a significant level of effect on constructive problem solving, insistent-persevering orientation and increasing anger control of the students in the experimental group. Despite this, having no significant level of effect on trait anger scores was observed. Based on the investigation findings, it was made a remark and some suggestions were developed for the application and research.

### Keywords

Negotiation  
Mediation training  
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### Introduction

Interpersonal relations are a necessity in social life. During communication process, that is an inevitable part of social life, the perception and interpretation of communication can vary from person to person. In any environment where the people having different needs are in contact with each other, experiencing conflicts arising from these differences is natural (Sünbül, 2008). Cultural background in different qualities biological, mental and emotional development level, perception, understanding and comprehension skills, personality traits of the students who necessarily share the same environment may lead to the interpersonal conflicts and disputes in human relations. Since it is quite difficult to satisfy different needs of the students at the same time and in the same environment all the time interpersonal conflicts and disputes in the classroom and school environment are inevitable. Although interpersonal conflicts and disputes is a neutral condition, the way people choose to resolve their natural disputes and conflicts may be constructive or destructive (Türnüklü, 2007).

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Interpersonal problems experienced are a conspicuous issue in educational institutions. Considering the age group, it was seen that interpersonal problems increased especially period covering secondary and high school education (Kulaksızoğlu, 2011). According to the research on high school students done by Türnüklü (2007), physical and verbal violence, personal traits, interpersonal problems and values are among important problems. These educational levels are the transition stage from childhood to adolescence. Adolescence transitional period includes some biological, cognitive and social emotional changes (Santrock, 2012). One of the adjustment problems of sudden and rapid development period is interpersonal conflicts (Yavuz, 2012). Adolescents are often in constant conflict by themselves with their families, teachers and other members of the community and they are faced with many interpersonal problems. In the relationships established as a result of self-growth and perceiving themselves differently, very rapid variations may occur (Kılıç, 2013). Instead of a balanced and harmonious primary school child in the previous period, a young person who is extremely anxious and gives quick response comes. That the adolescents can solve these problems in a healthy way will contribute to be more successful in development fields of a future life cycle.

When interpersonal problems are not solved in a constructive way, it may threat individuals and schools. According to D'Zurilla and Nezu (1990), interpersonal problems is a state that requires a response to be effective or for compliance. For this situation, cognitive and behaviorist steps taken by individual are described as problem solving (D'Zurilla, Nezu, & Maydeu-Oliveras, 2004). According to D'Zurilla and Goldfried's (1971) social problem-solving model, problem-solving is discussed in two dimensions. These are: (1) orientation to the problem and (2) are problem-solving skills. The dimension of problem orientation is classified as positive and negative approach. This dimension includes three sub-components as cognitive, emotional and behavioral responses of the people against the problem (D'Zurilla, Chang, & Sanna, 2003). Orientation to the problem reflects the general differences and perceptions about daily problems of the people (for example, perceiving the problem as a threat or challenge to a problem). They are based on the past experiences of the people about problem and problem solving and affect the perception and evaluations of the people about the problem (Eskin, 2009). Although these perceptions can slow down or facilitate the problem solving performance problem, they do not include problem solving techniques. These responses have a significant effect on problem solving performance of the people by affecting the commencement to problem solving, their effort and being steadfast (D'Zurilla et al., 2004). In the dimension of problem solving skill, problem solving skills are classified as rational, impulse-inattentive and avoider manner. Rational problem solving is described as constructive problem solving skill. Impulse-inattentive and avoider problem solving are classified as the approaches that are not constructive or functional. These approaches include non-functional coping behaviors like avoidance instead of overcoming the problem, thoughtless, and careless behaviors (D'Zurilla et al., 2004). According to a research performed by Bickmore (2002), after the training, it was obtained the result that the tendency of the students having peer mediation training to use problem-solving methods that do not include violence. The skills to be taught during mediation and negotiation process contribute to reveal constructive and functional problem-solving skills in interpersonal problems experienced by the students (Johnson & Johnson, 1996; Kaşık & Kumcağız, 2014). The training taken contributes the students to acquire new thinking ways, to the acquisition of conversational skills related to the problems and to the development of acting skill about the problems experienced (Sellman, 2011; Türnüklü et al., 2009b). Therefore, it can be displayed more positive approach about the problems that are faced with afterwards (Stevahn, 2004). While developing constructive and functional problem-solving skills, it reduces the non-functional approaches such as using power and avoidance (Türnüklü et al., 2010). When interpersonal problems are solved in negative ways, individuals experience worry and anger. But when the problems are solved in positive ways, individuals experience favorable feelings such as happiness (Türnüklü & Şahin, 2004; Öğülmüş, 2001).

In interpersonal problem situations, our emotions have an important role. Not only in interpersonal problem situations, but also when we encounter difficulties and while taking a decision which is very effective for us, our emotions are extremely important. Emotions help the regulation of social relations and they contribute to cope with the challenges in life. One of our natural emotions among them is the feeling of anger. That the feeling of anger is generally known as a negative emotion may be resulted from experiencing it with a negative wording since anger control cannot be ensured (Türnüklü, 2006). Anger is described as "Aggression response in the face of frustration, injury or intimidation; anger, fury and violence" at Turkish Language Institution dictionary. In Spirit Sciences Dictionary issued by the same institution, it is described as "Aggression response shown against frustration, injury or intimidation (TDK, 2013). According to a description, "anger is the feeling experienced when the people cannot obtain what they want and when they want to achieve it" (Bedell & Lennox, 1997). In the scale used in research the term trait anger is a concept to show how often the anger is experienced. It generally expresses the tendency to be angry. Anger can be expressed in three different ways. The anger-in reflects the tendency to suppress feelings and ideas; anger-out reflects the tendency to show aggressive behaviors towards people or objects; and control of anger reflects the capability to control anger experience and anger expression (Özer, 1994). Although anger is mostly recognized as a negative emotion it has also some functions such as simulative, protective or actuator. Students of mediation education indicate that they have personal development in anger management (Çetin, Türnüklü, & Turan, 2014). In literature it is seen that as positive problem solving approaches of individuals are increased, their anger management is also increased (Bedel & Arı, 2011; Arslan, 2010).

Interpersonal problems and negative feelings experienced arise when the behaviors of a person to reach the aim are prevented by another person. The reasons of interpersonal problems are generally gathered in three groups; a) Shortage of resources 'Money, goods, time are some of shortage of resources causing interpersonal problems. For example, five people waiting in a room with three chairs', b) Unsatisfied Psychological Requirements 'Requirements of obtaining power, belonging, freedom and entertainment;', and c) The differences in values, priorities and principles (Öğülmüş, 2001; Türnüklü, Kaçmaz, İkiz, & Balcı, 2009). Johnson and Johnson (1995) the disputes usually occur when there isn't enough resources to meet a person's requests (Türnüklü et al., 2009). One of the student-oriented curriculums for teaching problem-solving skills in these disputes is negotiation and mediation training programs. The mediation process that is a peaceful way through which both sides are awarded is described by Johnson and Johnson (1995) as a structured process in which a neutral and a third person known as mediator helps to negotiate the disputes of two or more people, facilitates the negotiation process. The aim of the mediation training is to teach alternative problem solving methods to individual (Johnson & Johnson, 1996; Koruklu, 2006). In this context, not only the students but also all the other employees are included in the training (Nation, 2003). The interpersonal problems experienced in the schools may also be confronted by the teachers and school administrators as a disciplinary problem. Thanks to problem-solving skill acquired in the schools, the teachers and administrators spend less time to solve the students' problems since the students can manage their problems in constructive way. Administrators and teachers can allocate their energy to other affairs about education and training (Johnson, Johnson, Dudley, & Magnuson, 1995; Lane & McWhirter, 1992; McWilliam, Nielssen, & Moore, 2015). After they are trained, students can apply this skill to the problems in their real lives (Johnson & Johnson, 2004; Johnson, Johnson, Dudley, Mitchell, & Fredrickson, 1997; Smith, Daunic, Miller, & Robinson, 2002; Garrard & Lipsey, 2007; Zuure, 2014). The experimental studies indicate that it is impossible for the students to learn these skills without any education (Johnson & Johnson, 1996). The individuals are understood to frequently use problem-solving techniques that do not include negotiation or problem solving, that are limited and not convenient (Longaretti & Wilson, 2006). Mediation process has significant advantages in terms of being learnt and applied. Among these advantages, the development of interpersonal relationships, acquiring main communication skills, having a simple and plain, that the control of the process are in the hands of the parties, being flexible and reliable of the process come to the fore (İl, 2009). The skills obtained by the students during the

training and the implementations performed by the students help them to keep these skills in their mind for a long time and to record them (Stvahn, Johnson, Johnson, Laginski, & O'Coin, 1996).

When education programs implemented were examined, the students continuing education in the schools within the scope of formal education were discussed (Türk, 2008; Türk & Türnüklü, 2013). It is needed to implemented and disseminated of these programs to the students attending the training centers and courses outside formal education. For focusing on risk groups within the scope of preventive guidance service, the implementation of the programs focusing on social-emotional competence like negotiating the conflicts and peer mediation has an important place (Korkut, 2003; MEB, 2006). These implementations are expected to reduce the risks towards the intensive anger and violence following the intensive anger arising from the lack of interpersonal problem-solving skills. The aim is to create a peaceful academic environment in the schools and institutions through peer mediation training method. In this study, there are the students who continue their education in residential courses. In also the residential courses, according to the declaration of the teachers and administrators, it is often faced with interpersonal problems. In workshops organized by National Education Ministry to handle the problems of boarding schools, some solutions for the problems about turning institutions into warm and comfortable family environment, proving psychological counselling and guidance to support psychosocial development of children are suggested (Baş, 2014). This study is thought to contribute to this field from this point of view. Any work could not be found in the literature in terms of residential training environments. In terms of boarding training environments, no study has been found in literature. This study conducted in this respect sets an example for boarding training environments. That the interpersonal problems experienced cannot be solved in a constructive way may affect the life compliance of the individuals negatively as it is indicated in the research findings above and the acquired problem-solving skills contribute to be acted in constructive and functional manner in the problems faced by individuals. Therefore the results obtained from the research are expected to show the way in creating the contents of psychosocial training programs such as problem-solving and mediation that they will prepared within the scope of preventive psychological counseling services of the counselors education programs such as psychosocial problems to be prepared within the scope of preventive counseling and mediation services to solve counselors are expected to show the way in creating content. The general purpose of this research is to investigate the effect of negotiation (problem-solving) and mediation training program applied to the adolescents on interpersonal problem-solving and anger levels. The independent variable of the research is negotiation and mediation training. The dependent variable is interpersonal problem solving skills and anger levels of the adolescents.

Being based on the general purpose, the below hypothesis will be tested.

Hypothesis 1. "Constructive problem solving" pretest-posttest difference scores significantly differentiate in favor of experimental group.

Hypothesis 2. "Insistent-persevering orientation" pretest-posttest difference scores significantly differentiate in favor of experimental group.

Hypothesis 3. "Trait anger" pretest-posttest difference scores significantly differentiate in favor of experimental group.

Hypothesis 4. "Anger Control" pretest-posttest difference scores significantly differentiate in favor of experimental group.

## Method

In this research, pretest-posttest control group experimental design among quasi-experimental designs was used. In the cases where the controls required by real experimental designs cannot be provided, it is made use of quasi-experimental design (Karasar, 2000). The design of the research is experimental and control group pretest-posttest design (2x2) and before starting to the research, Interpersonal Problem Solving Inventory, Trait Anger and Anger Expression Scale were applied to experimental and control groups as pretest. Then, while giving negotiation and mediation training covering 30 course hours and 15 activities to the experimental group, no transition was conducted in control group. At the end of the training program, Interpersonal Problem Solving Inventory, Trait Anger and Anger Expression Scale were applied to experimental and control groups as posttest.

### *Creating Research Groups*

This study was conducted in three boarding Koran Courses for males bounded to the Directorate of Religious Affairs. Since research group is formed by boarding courses for males, there were 14 male students in experimental and control groups. There were 126 students in the study group. In choosing the mediator, a form was distributed to the students on which the question that "Who are your three classmates whom you rely on and from whom you want to get help in order to manage a dispute, fight or conflict experienced with any of the classmates in a constructive and peaceful way?" and in the answers they gave, 14 volunteer students who got the highest scores were chosen for the experimental group. Considering the mean scores, 14 students were chosen for control group. The average age of control and experience groups is 17. Students from medium and lower economic classes from both groups stay at boarding course, and study at open-high school.

Whether the students in experimental and control group are homogeneous in terms of dependent variables according to Interpersonal Problem Solving Inventory, Trait Anger and Anger Expression Scale pretest scores of experimental and control groups was analyzed by Mann-Whitney U-Test and the analysis results are given in Table 1.

**Table 1.** Mann Whitney U-Test Results related to Constructive Problem Solving, Insistent-Persevering Orientation, Trait Anger and Anger Control Pretest Scores

	Group	N	Mean Rank	Sum of Rank	U	P
Constructive Problem Solving	Experimental	14	14.43	202.00	97.00	.963
	Control	14	14.57	204.00		
Insistent-Persevering Orientation	Experimental	14	14.61	204.50	44.00	.945
	Control	14	14.39	201.50		
Trait Anger	Experimental	14	13.50	189.00	84.00	.519
	Control	14	15.50	217.00		
Anger Control	Experimental	14	13.39	187.50	82.50	.471
	Control	14	15.61	218.50		

When Table 1 is examined, in conclusion of the analysis results of constructive problem-solving, persistent steadfast approach, trait anger and anger control scale pretest scores of experimental and control groups, it is seen that there is no significant difference between experimental and control groups (U: 97.00  $p > .05$ ; U: 44.00  $p > .05$ ; U: 84.00  $p > .05$ ; U: 82.50  $p > .05$ ; ). According to these results, it can be said that there is no difference between the groups in terms of pretest results and they are statistically equal to each other.



### **Data Collection Tool**

**Interpersonal Problem Solving Inventory (Çam & Tümkaya, 2008).** Interpersonal Problem Solving Inventory has been developed based on social problem-solving orientation to measure individuals' orientation to interpersonal problems. This Inventory is the only measure of problem-solving for the ages of 14-17. IPSI is a 5-level Likert scale consisting of 50 items developed to measure problem solving orientation and skills (1=*not appropriate at all*, 5=*totally appropriate*). The scale has total five subscales: Negative Problem Orientation (NPO), Constructivist Problem Solving (CPS), Lack of Confidence (LC), Avoiding Responsibility (AR) and Insistent-persevering orientation (IPA). Results of confirmatory factor analyses supported five-factor structure of the IPSI ( $\chi^2/df=1.97$ , RMSEA=.047, NNFI=.94, CFI=.95). High score received from each subscale indicates the greatness of the relationship with interpersonal problem solving. Internal consistency Cronbach Alfa coefficients of IPSI's subscale scores are NPO=.89, CPS=.87, LC=.67, AR=.68 and IPO=.70. Test-re-test correlation values of inventory have been determined to vary between .67 and .84. Inventory's validity and reliability tests conducted on high school students have demonstrated that five subscales have the adequate properties to measure interpersonal problem solving orientations and behaviors (Çam & Tümkaya, 2008). In the research, the sub-scale 'Constructive Problem Solving, Insistent-Persevering Orientation' which proved the statistical equality between the groups before experiment was used as data collection tool.

**Trait Anger and Anger Expression Scale (Spielberger, Jacobs, Russel & Crane, 1983):** Turkish adaptation of Trait Anger and Anger Expression Scale whose original name is "Trait Anger and Anger Expression Scale" and that was developed by Spielberger, Jacobs, Russel and Crane was developed by Özer (1994). The scale formed by 34 items in total and evaluated by using four point likert scale has three sub-scales. 10 of these items form Trait Anger Sub-Scale. Anger Expression Sub-Scale consists of 24 items and three sub-sections including 8 items for each. These are inward anger, outward anger and anger audit sub-scales. Alpha values of Trait Anger scale applied to various samples were observed to be from .67 to .92. The alpha values of Anger Control, Inward Anger and Outward Anger scales were found to be respectively .80-.90, .69-.91 and .58-.76. All of the items in SÖÖTÖ are plain. The individuals from Trait Anger Sub-Scales can receive a score from 10 to 40. They can receive 8 to 32 scores from the total of each dimensions of Anger Expression Sub-Scale (Özer, 1994). Within the scope of the research, the "Trait Anger and Anger Control" sub-scales of the scale were used as a data collection tool. In the research, the sub-scale 'Trait Anger and Control of Anger' which proved the statistical equality between the groups before experiment was used as data collection tool.

### **Treatment**

The scanning study of the research was performed in the second mid-term of 2013-2014 academic years. The implementation of the scales to the students was conducted at study times by the researcher himself. Before the implementation of the scales, necessary explanation was given. How the scale should be filled was described by giving samples. It was expressed that their answers would not be shared with any administrators in any way in accordance with the privacy principle, and for this reason the students were asked for answering the questions sincerely in order that the study could reach its aim. After this informing, it was started to implement the scales. In the evaluations conducted after the implementations, they were informed about the training program to be conducted. The content of the training was explained to the students. At the end of the informing, 14 students in the experimental group expressed their request to participate in the training program. In order that the students could take part in the experimental group to whom negotiation and peer mediation training would be given, it was required to be chosen by their friends, to voluntarily want to participate in the training program, not to make activities (sport, folk dances, taekwondo classes and so on) overlapping the training time that would prevent them to attend training program regularly. Mediation training program was developed as a training program including four main skills and covering 30 course hours and 15 activities. Negotiation and peer mediation training program include 4 main skills of training program; 1<sup>st</sup> Section: Understanding the Nature of Interpersonal Conflicts covers 10 course hours and 5 activities. Students get knowledge and capability about the nature of conflicts and disputes in interpersonal relations. 2<sup>nd</sup> Section: Communication Skills covers 4 course hours and 2 activities. The skills in activities

are active listening, I-language, empathy, expressing one's-self, open to criticism, respect for diversity. 3<sup>rd</sup> Section: Anger Management Skills covers 4 course hours and 2 activities. In these activities the skills necessary for students to express their angry feelings peacefully and manage others' feelings are taught. Finally, 4<sup>th</sup> Section: Interpersonal Conflict Resolution Skills cover 12 course hours and 6 activities The cognitive and sensitive efficacy skills necessary for students to solve their problems in positive ways are taught (Türnüklü, Kaçmaz, İkiz ve Balcı, 2009c). Researchers had graduate education on negotiation process and mediation, and have supported this education with workshops. Researchers have also conducted four psychosocial studies on negotiation and mediation.

### *Analysis of Data*

Prior to testing the hypotheses it was examined if "Trait Anger and Anger Expression Scale" and "Interpersonal Problem Solving Inventory" scores of experimental and control groups met normality and homogeneity hypotheses and it was detected that with respect to "Trait Anger and Anger Expression Scale" and "Interpersonal Problem Solving Inventory" scores, there was a normal distribution. However considering the fact that in both experimental group and control group the number of subjects included in the research was below critical value 30, nonparametric analyses were also conducted (Alpar, 2014). Within this context, the difference between posttest and pretest scores of subjects was computed and the scores were analyzed via Mann Whitney U test applied through dual comparisons of the groups in the series formed by difference of scores (Büyüköztürk, 2007). Data obtained from experimental and control group were analyzed via SPSS-WINDOWS 15.0 software program and significance level was set as .05.

## **Results**

The main aim of this study is to investigate the effect of negotiation and mediation training program on constructive problem solving, insistent-persevering orientation, trait anger and anger controls. In line with this aim, the hypotheses of the study were tested and the findings obtained are submitted below. Before passing to the findings related to the hypotheses of the research, the descriptive statistics of the students in experimental and control groups related to constructive problem solving, insistent-persevering orientation, trait anger and anger controls pretest-posttest scores are given in Table 2.

**Table 2.** Constructive Problem Solving, Insistent-Persevering Orientation, Trait Anger and Anger Control Pretest-Posttest Mean and Standard Deviation Values

Scale	Group	Measurement	N	X	Ss
Constructive Problem Solving	Experimental	Pretest	14	51.71	8.93
		Posttest		62.21	15.46
	Control	Pretest	14	52.07	1.20
		Posttest		50.71	2.18
Insistent-Persevering Orientation	Experimental	Pretest	14	20.00	4.16
		Posttest		23.50	3.95
	Control	Pretest	14	20.50	4.07
		Posttest		19.42	2.92
Trait Anger	Experimental	Pretest	14	24.64	6.45
		Posttest		19.92	3.33
	Control	Pretest	14	25.85	6.12
		Posttest		23.42	4.55
Anger Control	Experimental	Pretest	14	19.14	5.27
		Posttest		22.07	4.12
	Kontrol	Pretest	14	19.97	1.43
		Posttest		17.78	2.86

In order to test the hypothesis of the research, pretest scores subtracted from posttest scores and difference scores were found and in order to test the significance of difference scores of experimental and control groups, Mann Whitney U-test was applied (Büyüköztürk, 2007). Mann Whitney U-test results are given in Table 3.

**Table 3.** Mann Whitney U-Test Results related to Constructive Problem Solving, Insistent-Persevering Orientation, Trait Anger and Anger Control Pretest-Posttest Difference Scores of Experimental and Control Groups

	Group	n	Mean Rank	Sum of Rank	U	P
Constructive Problem Solving	Experimental	14	18.11	253.50	47.50	.020
	Control	14	10.89	152.50		
Insistent-Persevering Orientation	Experimental	14	18.36	257.00	44.00	.013
	Control	14	10.64	149.00		
Trait Anger	Experimental	14	12.39	173.50	68.50	.173
	Control	14	16.61	232.50		
Anger Control	Experimental	14	18.07	253.00	48.00	.021
	Control	14	10.93	153.00		

“Constructive problem solving”, the first hypothesis of this research, is that pretest-posttest difference scores significantly differentiate in favor of experimental group”. Analysis results indicate that there is a significant difference between pretest-posttest scores related to experimental and control groups ( $U=47.50$ ,  $p<.05$ ). Considering the mean rank of the difference scores, it is seen that they are in favor of experimental group. According to these results, it can be said that the training program applied in increasing the constructive problem solving of the students in experimental group is effective.

In the second hypothesis of this study that is "Insistent-Persevering Orientation", pretest-posttest difference scores differentiate significantly in favor of the experimental group. Analysis results indicate that there is a significant difference between pretest-posttest scores related to experimental and control groups ( $U=44.00$ ,  $p<.05$ ). Considering the mean rank of the difference scores, it is seen that they are in favor of experimental group. According to these results, it can be said that the training program applied in increasing the insistent-persevering orientation of the students in experimental group is effective.

In the third hypothesis of this study that is "trait anger", pretest-posttest difference scores differentiate significantly in favor of the experimental group. Analysis results indicate that there is no significant difference between pretest-posttest scores related to experimental and control groups ( $U=68.50$ ,  $p>.05$ ). This finding shows that negotiating and mediation program are effective in reducing trait anger levels of the subjects. These results indicate that the hypothesis expressed is not supported.

In the fourth hypothesis of this research that is “Anger control”, pretest-posttest difference scores differentiate significantly in favor of the experimental group. Analysis results indicate that there is a significant difference between pretest-posttest scores related to experimental and control groups ( $U=48.00$ ,  $p<.05$ ). Considering the mean rank of the difference scores, it is seen that they are in favor of experimental group. According to these results, it can be said that the training program applied in increasing the anger controls of the students in experimental group is effective.



## Discussion, Conclusion and Suggestions

This research have been conducted to investigate the effect of negotiating and mediation training programs on interpersonal problem-solving of the students and their anger. Research findings indicate that training program has a significant effect on constructive problem solving, insistent-persevering orientation, and anger control of the students in experimental group. The problems that the students experience at dormitories are given priority in education program. The nature of interpersonal conflict and the skills to solve them, and competence of communication and anger management are in the program. It is assumed that the content of the education is important to achieve this result. One of the main aims of the mediation programs is to get the students acquired constructive and functional problem solving method and to contribute to make a reliable and peaceful environment where the individuals are living (Koruklu, 2006). In literature, it was found out that the constructive problem-solving skills (Türk, 2008; Kaşık & Kumcağız, 2014) increase, process develops mediator students' communication and empathy skills (Türnüklü, Kaçmaz, Gürler, Kalender, Zengin & Şevkin, 2009a), it develops their self-esteem and self-confidence and reduces the disputes and quarrels of the students (Türnüklü, 2011). As a result of the research conducted by Sweeney and Carruthers (1996), it was found out that the students taking training tended to solve the disputes with more positive behaviors, and the violence in school decreased. In conclusion of meta analyses performed by Burrell, Zirbel and Allen (2003) school-based mediation process resulted in negotiation at the rate of 93% and 88% of the parties are satisfied with the agreement reached. In the study conducted by Türnüklü et al. (2009b), the effect of conflict resolution and peer mediation training was investigated. In this study, when peer mediation forms were examined, it was detected that 444 student conflicts were solved through peer mediation method and an agreement was provided at the rate of 98.4%. In training studies discussing other mediation process, similar results were obtained (Türk & Türnüklü, 2013; Türnüklü et al., 2010; Türnüklü, Kaçmaz, Sünbül, & Ergül, 2010). As a result of meta analyses conducted related to conflict resolution training programs within mediation process by Garrard and Lipsey (2007), school based conflict resolution programs had significant contributions to the reduction of anti-social behaviors of the students from kindergarten to the twelfth class. The students could reach to the state of solving their problems on their own through the training (Zuure, 2014). Beginning to see themselves as competent about this matter have great contributions to them for their constructive problem solving and struggling fearlessly with the problems they encountered (Erözkan, 2014). In the research conducted by Johnson, Johnson, Dudley, and Açıkgöz (1994), it was seen that the training given was successfully implemented in real life problems of the students after the training. In the research conducted by Stevahn, Johnson, Johnson, and Schultz (2002), it was concluded that after conflict resolution and mediation training, the children followed more positive approach towards the conflicts; this training contributed to increase their academic successes and decrease their departing from the school (Schellenberg, Parks-Savage, & Rehfuss, 2007), and to the acquisition of a positive viewpoint by them towards their classmates and so to the formation of a positive class-school atmosphere (McWilliam, Nielssen, & Moore, 2015). In another study, according to the expressions of their teachers, the students having peer mediation training have less problems and these skills learnt began to be used in the classroom and outside the school (Johnson, Johnson, & Dudley, 1992). The training given is not only a piece of information but also they are the behavior patterns that were turned into practice through mediation process. These studies which are based on resolution of the disputes, conflict resolution, negotiating and peer mediation proves to be an effective method to solve the problems for the students and to develop problem solving skills.

In this research, it was observed that while the training program had a significant effect on increasing constructive problem solving, spammer steadfast approach and anger control scores, there was no significant effect on the reduction of trait anger level. Trait anger is a concept reflecting in what frequency the situational concept is experienced in general. It generally refers to the state of individuals' tendency to anger. This state of anger has become a natural reaction of individuals. In this case, individuals have difficulty in controlling anger, they do not want to admit they are angry and they insist that their anger expression is true. Anger expression style has become the lifestyle (Özer, 1994a). Although there are some acquisitions about anger management within the content of the training given, it is thought that its time and content are not effective on anger that has become personality.

When research results are evaluated in general, it was concluded that negotiating and peer mediation training were effective on interpersonal problem solving approaches and anger controls of the students. According to this result, the training will ensure the students to give help from their peers in the problems they experienced and it will reveal the importance of founding peer mediation chambers. According to research results, it is seen that in order to increase the effect of training program, its content and time related to anger management must be revised. Research findings reveal the importance of including "problem-solving and mediation" training programs to be conducted based on developmental and preventive guidance and counseling services approaches by the psychological counselor studying in the field. In the dormitories of the students, performing the activities and studies to help the students to acquire more positive interpersonal problem solving skills within the scope of preventive guidance and psychological counseling services will contribute to the individuals' coping skills with the problems in constructive and functional way. It is thought that the problem-solving and mediation training studies to be conducted with the students, teachers and the people working as tutors will increase the effect of problem solving and mediation training studies conducted with the students. Only students participated to the study; this is the limitation of the study. In future studies instructors, tutors and course administrators can be included and this may increase the effect of education on problem solving and mediation. The dissemination of this research conducted in boarding Koran course to cover the dormitories and reformatories where the students studying in the education centers other than formal education may ensure to be benefited from these services by more individuals.

Psychological counselling and guidance approach is taken into consideration to early interfere, and especially solve the problems in formal and non-formal educational institutions. The importance of the protective and preventive studies for students to go to their schools safely and for restricting the violence in educational institutions is increasing. It is assumed that psychosocial education studies among psychological counselling services will have more importance in the future. In this scope, preventive psychological counselling and guidance applications are expected from field workers in accordance with circulars (Korkut, 2003; MEB, 2006). These psychosocial education studies are expected to decrease the risk of intense anger and violence following this anger which results the lack of problem solving skills.

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