

## **Anger Control in Adolescence: Effectiveness of the Cognitive-Behavioral Approach Based Anger Control Program**

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**ABSTRACT:** *The aim of the study is to examine of effectiveness of the anger control group counseling program which is prepared on the basis of cognitive behavioral approaches and implemented.*

*Study design is pre-post test, experiment and control group model. Mann-Whitney U test and Wilcoxon signed ranks test was used in the data analysis. Multidimensional School Anger Inventory and The Way of Coping Inventory were used as instruments. According to the findings of the research, the differences occurred between experiment and control group after the application of the group program in some sub-scales of Multidimensional School Anger Inventory and Ways of Coping Inventory. Moreover, the participants in the experimental group have been had also statistically significant differences*

**Keywords:** *Anger control, students, coping, cognitive behavioral approaches, group counseling*

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### **I. INTRODUCTION**

Anger is a psychological state. Psychological states are cognitive, emotional and physiological states that are revealed at a certain moment and that may show extreme fluctuations as time changes (Bushman, Vagg and Spielberger, 2005). If an individual gets hurt, if their rights are violated, if things go wrong with them, if they are limited or get scared, they usually feel anger. Even though it is a natural emotion, when experienced so often and manifested in an uncontrolled manner, anger gets one into trouble, causes damage to their surrounding, destroys their relationships and causes them to face many problems (Dryden, 1996; quoted in Selby, 2006).

When the body of literature on how anger is formed, as well as how the way of expressing it is improved, is examined, different explanations are observed. As the founder of the social learning theory, Bandura addresses anger with the term aggression, and describes the four stages related to the observational learning. This process, which begins with paying attention to aggressive behaviors, is completed with the stages of remembering information, realizing what is seen, and thinking of getting rewarded because of it. Bandura states that all these four stages have to be passed so that the observed aggression creates aggressive behaviors in a person (Burger, 2006). According to the Adlerian approach, anger is a typical example of the effort of being strong and of influencing others. Adler (2003) defends that an angry person will have a purpose of forcefully and immediately removing any obstacle. He emphasizes that, affected by their previous experiences, angry people believe they can easily achieve whatever they want and have victory over those who are against them by resorting to such mechanism. Adler (2003) suggests that some people have systemized anger. He continues stressing that they are arrogant people who cannot stand the idea that others are superior to themselves or are at the same level with them, and who believe that one has to be superior to all to be happy. As a result, he states, these individuals are always alert and they pay attention whether anyone else is catching up with them or whether they are appreciated enough.

According to the Cognitive Behavioral Approach, various situations experienced in life cause different emotive reactions in individuals. Theoretically, an individual's reactions are determined by their perception regarding such situations and occasions, as well as the meanings attributed to them (Campos, Schoebi, Gonzaga, Gable and Keltner, 2015). The Cognitive Behavioral Approach refers to this cognitive process, which leads one to attribute negative meanings and to feel bad, as schemes, automatic thoughts and cognitive distortions, which the approach focuses on during a treatment process (Leahy, 2004). Considering the cognitive process that creates anger, it is observed that anger is rooted by non-rational settled thoughts about others. For example, "others should treat me in a thoughtful and lovely way, just as I want. If not, they are bad people, so they deserve to be punished for the horrible behaviors." Such non-rational thought usually makes one frustrated, urges them to be rude and disagreeable, causing them to hold a grudge (Köroğlu, 2011).

Anger leads bursts of rage in a lifetime that will eventually turn into regret and create more disappointment, making an individual's life a vicious cycle. This has a negative impact on the individual's social and work life. Anger both prevents them from reasoning in a healthy manner and triggers aggressiveness (Greenglass, 2005; Köroğlu, 2011). Such repeated negative and angry behaviors slowly limit one's living experience, making them unhappier (Dryden, 1996; akt. Selby, 2006). Unfortunately, these people channel their

anger towards the most familiar people, namely spouses, children, friends or colleagues. The result is losing their social support that plays an important role in coping with environmental stress, and since the negative impact of anger will be felt more on their surrounding than themselves, they will be directed to mental health services (Cummins, 2006; Köroğlu, 2011).

It is significant to realize and change the cognitive process that causes anger in order to gain the skill of anger management and lessen the number of bursts of rage. Beck (2005) emphasizes that a person will get angrier when it is perceived that an attack has been deliberately directed at them, when a behavior is regarded as unfair, wrong or irrational, and when it is felt that their self-determination has been violated and they will face an accusation. Moreover, if the opposite is the case, i.e. when it is thought that a mistake has been made unintentionally with good intentions, or based on a right motive, he suggests that the individual will get less angry.

The feeling of anger is not expressed merely by showing violent behavior. Some individuals refuse the fact that they feel anger and oppress it, which results in damaging to themselves and –indirectly- to their surroundings. A conducted research reveals that depression and a feeling of guilt may be observed more in women with the tendency of repressing anger and chronic anxiety (Akgül, 2005; Biaggio, 2005).

Learning how to control anger and how to express this emotion in an appropriate way will help an individual have a better quality of life. Regarding this, Jongasma, Peterson, McInnis and Bruce (2014) suggest some methods, which are as follows:

- Learn and apply anger management skills,
- Lessen the intensity and frequency of bursts of rage,
- Communicate with the surrounding in an appropriate manner.

In line with their objectives, it is observed that group studies for coping with anger that have been created based on the Cognitive Behavioral Approach have been effective at providing information and skills regarding developing healthy and functional thoughts, and behaviorally realizing those thoughts. When studies performed in Turkey are taken into account, it is concluded that the anger management program, which Karataş (2009) conducted by using cognitive behavioral techniques, was effective in regards to decreasing the aggressiveness scores of high school students, and that this effect continued until the monitoring measurement that was completed 12 weeks later. As a result of the studies where the effect of anger management training has been examined, Şahin (2006) finds out a decrease in aggressive behaviors of students of 10-11 ages, while Özkamalı and Buğra (2010) obtain findings showing that it affected university students' constant anger levels in a positive and permanent way. In a similar research, Akgül (2005) confirms that anger is a significant emotional reaction that may be seen in adolescents, as in those of any age. At the end of the group study for anger control, adolescents were proved to have a higher anger control level. Based on the conducted literature analysis, it is concluded that anger control programs performed with high school students (Akdeniz, 2007; Gebeş, 2011; Avcı, 2012; Şimşek, 2012; Tuna, 2012; Çetinkaya, 2013; Keçialan, 2013) had a positive impact on their anger management.

Reducing the number of negative situations arising from anger and developing appropriate coping skills contain several acquisitions in relation to both personal mental health and social security. In the light of the relevant literature, this study is prepared with the group to offer a psychological consultancy program, which mental health professionals -especially those who work with adolescents- can use, with the aim of informing them of the feeling and control of anger, as well as helping them develop healthy coping skills. Consisting of eight sessions, this psychological consultancy program is structured based on the descriptions that the Cognitive-Behavioral approach has developed regarding anger. With its fundamental practices, the study aims the following: realizing emotion-thought-behavior relationship; following up and recording the cognitive process; questioning non-realistic thoughts and improving an alternative thought-behavior; having the ability to use relaxation techniques; controlling feelings of anger by enhancing skills for expressing thoughts and emotions appropriately, and having the ability to explain them in proper ways.

In line with these objectives, the hypotheses below are tested:

1. Following the developed psychological consultancy program for the students in the experiment group:
  - a. There will be a statistically meaningful decrease in the scores for anger, hostility and destructiveness in favor of the experimental group.
  - b. There will be a statistically meaningful increase in the scores for positive coping, self-confident approach and optimist approach in favor of the experimental group.
  - c. There will be a statistically meaningful decrease in the scores for desperate approach, submissive approach and seeking social support in favor of the experimental group.
2. Following the experimental process, there will be a statistically meaningful decrease in the scores of the students attending the experimental group and the control group for desperate approach, submissive approach and seeking social support in favor of the experimental group.

## **II. RESEARCH METHOD**

### **Study Model**

This is a real experiment model research that has been completed in accordance with the pretest-posttest control group model, which is built by the random assignment. The experimental group was exposed to the application of an 8-week Cognitive-Behavioral Approach Based Anger Control Group study, while the control group received no application. Following the performed studies, the effectiveness of working with pretests and posttests were examined.

### **Study Group**

The working group consisted of female students of 14-17 ages, who were studying at a high school at the time of the experiment that they participated in voluntarily. Randomly, 10 female students were selected for the experimental group, and 10 female students for the control group. The experimental and the control group's scores for the scales regarding the Multidimensional School Anger Inventory and the Coping Styles for Anger were tested with the Mann-Whitney U test, and there was no meaningful statistical difference between the groups (Table 2).

### **Data Collection Tools**

#### **Multidimensional School Anger Inventory**

Adapted into the Turkish language by Canbuldu (2006), the Multidimensional School Anger Inventory was developed by Smith, Furlong, Bates and Laughlin (1998) so as to examine different forms of expressing anger by means of items used in the school-relative content and to make an emotional and cognitive assessment for anger. Including the subscales of Anger Experience, Hostility, Destructive Expression and Positive Coping, this test is consisted of 33 items in total.

#### **Ways of Coping Inventory**

Folkman and Lazarus (1980) developed the Ways of Coping Inventory, and Şahin and Durak (1985) conducted the studies regarding its validity and credibility in the Turkish language. The original Coping Styles Scale for Stress was created based on the Cognitive-phenomenological approach developed by Lazarus. Being one problem-focused active dimension and one emotion-focused passive dimension, two dimensions were obtained as a result of the classification of the first 68-item scale. The Cronbach's Alpha was found to be 80 for the problem-focused active sub-dimension and 81 for the emotion-focused passive sub-dimension (Şahin and Durak, 1985).

### **Process**

Based on the cognitive-behavioral approach and developed by researches, the program was comprised of a total of 8 sessions, and each session, being approximately 90-minutes, took place once a week. In general terms, the content of sessions is as follows:

In the first week, the aim was to have the acquaintance phase, to determine the group rules, and to establish the expectations. Moreover, the topics on the description of anger, the body parts where it is felt, as well as its emotional, behavioral and physiological indications were stressed. A relaxation activity was also performed. During the second week, the negative effects of anger, false beliefs on anger, the A-B-C behavior were explained with the use of various activities and examples, enabling the participants to offer examples from their own lives. In the third week, examples and automatic thoughts on the behavior A-B-C were detailed and supported by establishing a relationship with homework's.

During the course of the fourth week, short drama works were performed using the examples where passive attitude, aggressive attitude, passive-aggressive attitude, correct self-assertive attitude, as well as the attitude that was applied, were discovered. In the fifth week, some examples of attitudes showed in the daily life were studied and supported with the use of plays. In the sixth week, the ability to say no to others was stressed and related activities were conducted. In the seventh week, stress management and relaxation techniques were practiced, and a discussion was initiated regarding how to apply those techniques in the participants' own lives. During the eight and last week, the way of applying the information acquired by living as a group in their lives, as well as their strengths and weaknesses, were explained, and the group process was finalized by the 'goodbye' event.

### **Data Analysis**

Being less than 30, the subjects failed to represent the universe displaying a normal distribution in the data analysis (Sümbüloğlu & Sümbüloğlu, 2000); therefore, nonparametric statistical techniques were used.

### III. FINDINGS

With the aim of testing the effectiveness of the psychological consultancy program with the developed Cognitive-Behavioral based group, the arithmetic mean and standard deviation values obtained from the pretest and posttest scores of the experimental and control groups' "The Multidimensional School Anger Inventory" and "Ways of Coping Inventory" were calculated and the related findings are indicated on Table 1.

**Table 1:** Mean And Standard Deviation of The Multidimensional School Anger Inventory's and Ways Of Coping Inventory

Subscales	Experimental Groups				Control Groups			
	Pretest		Posttest		Pretest		Posttest	
	x	ss	x	ss	x	ss	x	ss
<b>Anger Inventory</b>								
Anger experience	35,4	7,17	31,1	7,56	35,6	6,90	34,9	6,67
Hostility	12,8	3,25	15,4	4,79	15,4	3,53	16,4	3,92
Destructive expression	11,7	2,67	12,5	2,95	13,7	5,31	13,1	3,98
Positive coping	9,50	2,99	12	2,58	12,2	5,57	11,8	3,85
<b>Ways of Coping I.</b>								
Self-confident	9,8	4,73	13,3	2,91	14,7	12,86	11,5	5,48
Optimistic	4,6	3,06	6,4	2,87	7,2	3,70	7,1	3,93
Helpless style	10,6	4,69	10,2	4,7	12,3	5,73	11,6	4,3
Submissive	4,3	3,56	6,1	4,01	6,5	2,41	7,8	2,25
Seeking of social support	6,3	3,02	7,1	3,03	6,8	2,25	6,2	2,78

When the acquired data is examined, it is seen that the pretest experimental group and the control group have very similar means regarding anger experience, while there is a decrease in the posttest anger experience in favor of the experimental group (the experimental group  $x=31.1$ , the control group  $x=34.9$ ).

As for the hostility subscale, an increase was observed in both of the groups in favor of the posttest. While there was no a big change in the "Destructive Expression" subscale test, it was seen that the "Positive coping" average score went up in favor of the experimental group posttest. When the experimental group pretest and posttest scores obtained by the Ways of Coping Inventory Subscales are examined, it is understood that the approaches of self-confidence, optimism, submission and seeking social support moved up, while the average of the desperate approach was confirmed to nearly stay the same. When the averages of the control group pretest and posttest scores are analyzed, it is ascertained that there was a decrease in the self-confident and desperate approaches, an increase in the submissive approach, and no significant change in the optimistic and consulting to the social support averages.

With the help of the Mann Whitney-U test, prior to the application of the psychological consultancy program with the developed group, it was tested whether there was a difference between the pretest scores of the experimental and control groups regarding the scales, and the findings are stated on Table 2.

**Table 2:** Mann Whitney-U Test Results for Experimental and Control Groups' Pre-Test Scores

Subscales		N	Mean Rank	Sum of Ranks	U	P
<b>Anger Inventory</b>						
Anger experience	Experimental	10	10,45	104,50	49,500	,970
	Control	10	10,55	105,50		
Hostility	Experimental	10	8,10	81,00	26,000	,066
	Control	10	12,90	129,00		
Destructive expression	Experimental	10	9,35	93,50	38,500	,379
	Control	10	11,65	116,50		
Positive coping	Experimental	10	9,00	90,00	35,000	,251
	Control	10	12,00	120,00		
<b>Ways of Coping Inv.</b>						
Self-confident	Experimental	10	9,30	93,00	38,000	,363
	Control	10	11,70	117,00		
Optimistic	Experimental	10	8,85	88,50	33,500	,208
	Control	10	12,15	121,50		
Helpless style	Experimental	10	9,70	97,00	42,000	,544
	Control	10	11,30	113,00		
Submissive	Experimental	10	8,55	85,50	30,500	,139
	Control	10	12,45	124,50		
Seeking of social support	Experimental	10	10,20	102,00	47,000	,819
	Control	10	10,80	108,00		

As indicated on Table 2, no statistically meaningful difference could be found between the experimental and control groups in terms of the pretests of The Multidimensional School Anger Inventory Subscales and the Ways of Coping Inventory Subscales.

Following the application of the 8-week program, developed for coping with anger, on the experimental group, the Wilcoxon Signed Rank Test was benefited in order to compare the experimental group’s pretest and posttest scores regarding the “Multidimensional School Anger Inventory” and “Ways of Coping Inventory”. The findings are presented on Table 3 and Table 4.

**Table 3:** The Result of Wilcoxon Signed Rank Test in Terms of The Experimental Group’s Pre-and Post-test Scores

		N	Mean Rank	Sum of Ranks	Z	p
Anger experience	Negative Ranks	6	6,92	41,50	-1,436	,151
	Positive Ranks	4	3,38	13,50		
	Ties	0				
	Total	10				
Hostility	Negative Ranks	2	3,50	7,00	-1,841	,066
	Positive Ranks	7	5,43	38,00		
	Ties	1				
	Total	10				
Destructive expression	Negative Ranks	4	4,88	19,50	-,820	,412
	Positive Ranks	6	5,92	35,50		
	Ties	0				
	Total	10				
Positive coping	Negative Ranks	1	4,00	4,00	-2,203	,028*
	Positive Ranks	8	5,13	41,00		
	Ties	1				
	Total	10				

p<.05

**Table 4:** The Result of Wilcoxon Signed Rank Test in Terms of The Experimental Group’s Pre-and Post-test Scores

		N	Mean Rank	Sum of Ranks	Z	p
Self-confident	Negative Ranks	1	6,50	6,50	-2,145	,032*
	Positive Ranks	9	5,39	48,50		
	Ties	0				
	Total	10				
Optimistic	Negative Ranks	1	2,50	2,50	-2,399	,016*
	Positive Ranks	8	5,31	42,50		
	Ties	1				
	Total	10				
Helpless style	Negative Ranks	6	5,25	31,50	-,409	,683
	Positive Ranks	4	5,88	23,50		
	Ties	0				
	Total	10				
Submissive	Negative Ranks	0	,00	,00	-2,388	,017*
	Positive Ranks	7	4,00	28,00		
	Ties	3				
	Total	10				
Seeking of social support	Negative Ranks	2	4,75	9,50	-1,222	,222
	Positive Ranks	6	4,42	26,50		
	Ties	2				
	Total	10				

\*p<.05

According to the Wilcoxon test results displayed on Table 3, the pretest and posttest scores regarding the subscales of “anger experience”, “destructive expression” and “hostility” provided no statistically meaningful difference, while the “positive coping” subtests (Z= -2,203, p<.05) presented a statistically meaningful difference in favor of the posttest. Based on that, positive coping was found to be high in those participated in the experimental group subsequent to the process.

According to the Wilcoxon test results showed on Table 4, the experimental group had a meaningful difference regarding the subscales of the “self-confident” (Z=-2,145; p<.05), “optimistic” (Z=-2,399; p<.05) and “submissive” (Z=-2,388; p<.05) in favor of the posttest scores. In other words, following the applied program, there was a meaningful increase in the experimental group’s scores in relation to the self-confident, optimistic and submissive. On the other hand, there was no statistically meaningful difference found in the subtests of “helpless styles” and the “seeking social support”.

By applying the Mann-Whitney U Test Results Between the Experimental-Control Group Multidimensional School Anger Inventory and the Posttest Scores for Ways Of Coping, the meaningfulness of the difference between the scores obtained from the two unrelated samples were tested, and the acquired results are given on Table 5.

**Table 5:** Mann Whitney-U Test Results for Experimental and Control Groups' Post-Test Scores

Subscales		N	Mean Rank	Sum of Ranks	U	P
<b>Anger Inventory</b>						
Anger experience	Experiment	10	9,20	92,00	37,00	,353
	Control	10	11,80	118,00		
Hostility	Experiment	10	9,60	96,00	41,000	,529
	Control	10	11,40	114,00		
Destructive expression	Experiment	10	10,40	104,00	49,00	,971
	Control	10	10,60	106,00		
Positive coping	Experiment	10	11,10	111,00	44,00	,647
	Control	10	9,90	99,00		
<b>Ways of Coping Inv.</b>						
Self-confident	Experiment	10	11,70	117,00	38,00	,362
	Control	10	9,30	93,00		
Optimistic	Experiment	10	9,95	99,50	44,50	,675
	Control	10	11,05	110,50		
Helpless style	Experiment	10	9,45	94,50	39,50	,426
	Control	10	11,55	115,50		
Submissive	Experiment	10	8,45	84,50	29,50	,119
	Control	10	12,55	125,50		
Seeking of social support	Experiment	10	11,40	114,00	41,00	,492
	Control	10	9,60	96,00		

When the experimental and control groups' posttest scores regarding the scales were analyzed, there were no statistically meaningful differences found. However, even though no statistical meaningfulness was obtained, it was observed that the differences in the experimental group's averages were more prominent, when the averages were examined.

In addition to the statistical analyses, the group members were asked to assess the study as a whole at the end of the process and the content analysis of the written assessments were fulfilled. In general, all the group members stated that the applied event was fit for purpose, that the information on the anger control provided by the group leader was sufficient, and that the group was, in general, well structured. Moreover, the members emphasized that they felt comfortable during the course of the group works, and that they enjoyed the activities including game playing, role-playing and painting etc. Additionally, when asked to express the most influential occasions they had during the group process, they told about controlling anger, realizing that their cognitive processes affected their emotions and behaviors, the ways of saying no, and relaxation activities.

#### IV. DISCUSSION

The high school years in Turkey coincide with the adolescence period when fast changes in all improvement areas and adaptation problems that come along with it arise. During this period, an adolescent has to carry out their development duties such as adapting to the changing body, being able to express themselves in a correct way during the unexpected ups and downs, having a place within the society, and building a healthy identity (Santrock, 2011). Having skills that are abstract and beyond abstract at the thought level, the adolescent occasionally develops non-realistic and irrational thoughts and beliefs and is able to use this cognitive process to perceive themselves, others and the life and to cope with problems (Campos, Schoebi, Gonzaga, Gable and Keltner, 2015). Those thoughts, which are assumed to be developed owing to the interactions with close circles, including especially family environment at the early stages of life (Türkçapar, 2012) affect emotions, attitudes and tendencies, and have an immense impact on the adolescent's interpersonal relations, stress experiences and coping skills (Beck, 2001).

The cognitive behavioral approach suggests that the mentality created by persons towards certain incidents affect their attitudes. The rational thought developed for incidents causes them to have positive feelings, and irrational thoughts emerging from the opposite conditions result in negative feelings. Theoretically, thoughts with automatic negative characteristics are accepted to be changeable with the help of alternative healthy thoughts (Beck, 2005; Beck, Freeman and Davis, 2008).

In the light of the relevant literature, based on this assumption, this study aims to apply and analyze the effective of the "Anger Control Program" developed based on the Cognitive-Behavioral Approach for high school students. In line with this primary purpose, it is comprised of 8 psychological consultancy sessions where 20 high school students, 10 being in the control group and 10 being in the experimental group, participated.

Prior to the application of the developed program, the experimental and control groups were compared with each other in terms of their anger experiences and coping skills, reaching the conclusion that the two groups were similar. The main hypothesis of the research was established suggesting that the applied anger control program would create differences in the experimental group. The obtained findings show that there was an increase in the coping skills of the students that joined the experimental group, subsequent to the experimental process. The increased positive coping approach, which was accomplished at the end of this

cognitive-behavioral approach based program, suggests that the individuals cognitively became stronger regarding the anger control aimed by this study. Anger is a fundamental negative emotion that causes one to feel in danger or under threat. It has also a strong relationship with hostility and often supports destructive behaviors (Spielberg and Reheiser, 2010). It is considered to be important for persons to improve their skills for expressing themselves and their furiousness in a positive manner by controlling the negative effects of anger.

When the findings on the coping styles for anger are examined, the participants in the experimental group are seen to have improved their manners of approaching in regards to self-confidence, optimistic and submission. The self-confident and optimistic are active coping styles against a problem, while the submissive is a passive coping style towards an emotion (Şahin and Durak, 1985). In the applied program, the purpose was to develop active coping styles against a problematic situation. In this sense, the fact that the self-confident and optimistic styles were observed to have a meaningful increase shows that the program functioned in terms of accomplishing the aimed change. On the other hand, the fact that one of the participants expressed the problem of “not being able to say no” during the sessions and the positive acceptance and perception towards this mentality drew attention. It is considered that this attitude and perception of this member, being a loved and acknowledged member within the group, might have affected other members, leading them to make a positive assessment regarding the submissive approach. On the assessment form for the study, some students indicated the said member’s name as a response to the question asking the group member who influenced them the most. In this sense, the part spared for the activities to say no may be enriched to have a more functional program in order to fulfill the desired purpose.

The completed study consisted of students that were studying at a high school. In the high school curriculum, there are some in-class activities for stress, anger management, conflict solving etc., which are improved for counselors to study during counseling courses. Therefore, it is not possible to fully isolate the control group from anger management studies. It is considered that the reason why the examination made between the posttests of the experimental group and the control group had no statistical difference is that the control group’s members were exposed to and learned about the information, such as anger control. However, the experimental group’s members displayed a greater improvement in terms of anger control management than those of the control group. This suggests the group works that are prepared in more detail and that allow individuals to open up more are more effective than in-class counseling activities.

In conclusion, although the applied psychological counseling program created some desired changes in the participants’ cognitive processes, this study has some limitations. A random selection was performed so as to assign group members for the experimental group and the control group without completing a general screening test. For the future studies, it is suggested to establish an experimental group and a control group based on the pilot studies in order to overcome this limitation. Moreover, there was no monitoring study conducted due to the institutional change of the responsible researcher, which is another limitation to the study. On the other hand, this program was applied to a group consisted of students of a science high school. It is considered that it would be beneficial to test the efficiency of program by applying it to different high school groups.

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