Eurasian Journal of Educational Research, Issue 55, 2014, 223-242

Effects of a Leadership Development Program on Gifted and Non-Gifted Students' Leadership Skills*

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Suggested Citation:

Ogurlu Ü., & Emir S. (2014). Effects of a leadership development program on gifted and non-gifted students' leadership skills. *Eurasian Journal of Educational Research*, 55, 223-242. http://dx.doi.org/ 10.14689/ejer.2014.55.13

Abstract

Problem Statement: The presence of leaders who will lead societies to success is an important gain for a society. In the present time, leadership development has become a strategic requirement. Although there is a common agreement on the need for leadership education, there are few studies on the education process of leadership and the efficacy of leadership programs in schools. Moreover, leadership and giftedness have been regarded as related, but leadership training is neglected in gifted education. The efficiency of current leadership development programs should be examined, and new effective programs should be developed for young and skillful leaders. This study reports preparation, implementation, and testing effectiveness of a leadership development program that aims to develop the leadership skills of non-gifted students and gifted students who are more likely to become leaders in the future.

Purpose of Study: This study aimed to investigate the effects of a leadership skills development program on development of students' leadership skills as applied to gifted and non-gifted students in the second level of primary education on development of students' leadership skills.

Methods: Pre-test/post-test control group experimental design was used. There were 21 students (7 gifted) in the experimental group and 20 students (6 gifted) in the control group. In this study, a leadership skills development program with 15 sessions was developed. The leadership program was applied to the experimental group, and then comparisons were made between the gifted and non-gifted students' leadership skills

* This research is a part of first author's Doctoral Thesis.

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based on scale results obtained from post-test scores and pre-test scores of experimental groups and control groups.
Findings and Results: The findings of the study revealed that the program designed to improve leadership skills had positive effects on the leadership skills of both gifted and non-gifted students in the experimental group.
Conclusions and Recommendations: Leadership development programs may be useful for both gifted and non-gifted students. Therefore, more leadership training programs should be developed and implemented at all educational levels.
Keywords: Gifted students, leadership, leadership development program, leadership skills scale

Introduction

Leadership is of vital importance for the development of humanity. The presence of leaders who will lead societies to success is an important gain for a society. Therefore, people regard the subjects of leadership and of being a leader as attractive and interesting. The idea that the development of leaders is not a luxury has become more accepted. Recently, leadership development has become a strategic requirement (Fulmer & Goldsmith, 2000). According to Smith, Smith, and Barnette (1991), many researchers (Porter, 1981; Foster, 1981; Emmerich, 1983; Hensel & Franklin, 1983; Maher, 1985-86; Feldhusen & Kennedy, 1988; Lee, 1989; Evans, 1982; Washburn, 1982; Stiles, 1986; Leatt, 1987; Gray & Pfeiffer, 1987; Karnes, 1989, among others) have supported the idea that leadership consisting of skills can be taught, and it can be improved with some programs beginning in puberty.

Leadership in gifted students has been an area of interest for many researchers in this field (Davis & Rimm, 1994). According to Chauvin and Karnes (1983), there is parallelism between the features of a qualified leader and a gifted person. Qualified leaders and gifted people have good verbal skills and imagination; are socially sensitive; can solve problems; can think critically; and they are creative, enterprising, responsible, and flexible. Above average intelligence is a prerequisite for leadership, because leaders need to be more intelligent than those in the group they lead (Edmunds & Yewchuk, 1996). In their study examining the relationship between leadership and intelligence, Judge, Colbert, and Ilies (2004) conducted meta-analysis of 151 independent studies from 96 sources. Their study demonstrated that there is a positive relationship between leadership and intelligence. Marland Report (1974), which has proposed the first formal definition of giftedness, describes "leadership" as one of six areas of giftedness. In gifted education, although leadership has been included in the formal definition for more than 30 years, many researchers agree that leadership is the area that is neglected most and developed least (Chan, 2000; Karnes & Bean, 1996; Hays, 1993; Smith et al., 1991). Milligan (2004) states that, assuming there is a positive correlation between giftedness and leadership to some degree, many researchers in gifted education think that leadership training is an important component of gifted programs (Davis & Rimm, 1994; Karnes & Chauvin, 1986; Renzulli & Reis, 1985; Roach, Wyman, Brookes, & Chavez, 1999; Sisk & Roselli, 1987).

Education of intelligent leaders has the utmost importance for national and international development. Therefore, teaching leadership skills has become a necessary task for schools, especially for the teachers of gifted students (Parker & Begnaud, 2004). Researchers have conducted many studies about the potential content of leadership training programs.

According to MacGregor (2005), leadership development programs for 6th graders should focus on identity development, values, self-esteem, communication with others, boundaries and rules, team-building, value of education, social issues, becoming a leader, refusal skills, supporting ideas, and diversity. Plowman (1981) states that leadership training programs should cover the following elements: Cognitive skills, which include organizational skills, problem-solving skills, inductive reasoning, research techniques, time management, motivation techniques, and studying for the future; and emotional skills, which include defining values, empathizing, communication skills, group dynamics, and effective listening skills. According to Meyer (1996), leadership training should include topics such as the nature and principles of leadership, problem and conflict solving, planning, decision making, determining values, group motivation, communication and coordination, management of emotions, and creative leadership.

Karnes and Bean (2001) state that leadership training needs to be an integrated part of gifted education. Leshnower (2008) presents some ideas and activities for gifted students in small groups, such as creating vision for leadership, communication, leadership and pursuance, creative thinking, confidence, and cooperation. Leadership curricula for gifted students should include skills of high-level thinking, approaches to creative problem solving, logic, and decision making models, especially ones that require students to make decisions with limited information (Feldhusen, 1994). Roets (1986) developed a leadership training program for gifted students between 8 and 18 years old based on four themes: People of achievement, language of leadership, project planning, and discussing. Parker and Begnaud (2004) suggest four important components to develop an effective leadership curriculum, claiming that leadership skills of gifted and non-gifted students can be developed. Those four components are: Cognition, problem solving, interpersonal communication, and decision making.

According to Karnes and Bean (1996), the studies have shown that even short programs—for example, those of 1 or 2 weeks—can develop leadership skills. Schack (1988) organized a leadership program for students who were between the ages of 11 and 16, which included a 3-week summer camp. A total of 55 students participated in the program. At the end of the program, there were significant differences in students' problem-solving skills. Petty and Hanson (1989) organized a one-week summer camp for 8th-grade class. The program was designed according to five basic elements: Determination, self-control, team work, enthusiasm, and conscience. Students who participated in the summer leadership camp showed better leadership, team work, motivation, and time-management skills. Similarly, researchers observed that students who participated in leadership development program developed a sense of belongingness to the school, took more responsibilities both inside and outside school, and their will to serve the community increased (Furtwengler, 1991).

In a study by Lin (2003), students stated that positive student leadership helped them have good relations between school and society.

Gonsalves, Grimm and Welsh (1981) organized a week-long summer camp for 100 gifted students (7th-8th grades). The program was evaluated according to students' and parents' evaluations of 18 leadership features before and after the program. Although there was no significant difference between the scores from before and after the program, the program was regarded as successful based upon the positive feedback from students and parents. Smith et. al. (1991) studied leadership training effects on 32 gifted adolescent students. The results showed that there was a difference in students' willingness to reply to group members, skills in persuading others, verbal skills, deciding skills, self-confidence, and other group dynamics.

According to Kim, Cho, and Jin (2005), as gifted students grow up and as their education levels increase, their problem-solving skills improve while leadership skills do not. This means that leadership does not improve automatically age increases. In order to improve leadership skills of students, the ones with leadership potential should be identified (Hensel, 1991). Gifted students' leadership potential cannot be recognized or they can be misguided if they are not supplied with proper leadership training (Karnes & Riley, 1996). Lindsay (1988) states that though leadership is a hot topic in gifted education, it is highly neglected.

Although there is a common agreement on the need for leadership education, there are few studies about the education process of leadership and the efficacy of leadership programs (Cooley, Keiser, Ruhl-Smith, & Shen, 1999; Parker & Begnaud, 2004). Bisland (2004) states that leadership has become an abstract term and has been ignored in school curricula, that many schools could not integrate leadership education into traditional curricula, and that teachers generally do not receive any training about leadership development. Foster and Silverman (1988) state that schools should go beyond traditional curricula and place leadership development programs into their own curriculum. For Fertman and Long (1990), it is possible to teach leadership skills and to apply them in a school curriculum. Adolescents need opportunities to take leadership roles and responsibilities. Leadership training should be for all students in the school, which is the most accessible place (Karnes & Stephens, 2000).

There are few studies about leadership and giftedness, and the number of leadership development programs for students is inadequate. Leadership training in schools is a new concept in Turkey. The efficacy of current leadership development programs should be examined, and new, independent, and effective programs should be developed for young and skillful leaders. Because there are very few studies in our country about leadership development programs, there is a need for an experimental study that aims to develop the leadership skills of gifted and non-gifted students in primary education and subsequently examines the effects of the leadership development program. In this study, a leadership skills development program was designed for gifted and non-gifted students, who will be the leaders in the future. This study was conducted to investigate the effect of the leadership skills development program on the development of students' leadership skills as applied

to gifted and non-gifted students in the second level of primary education (6th, 7th, and 8th graders). In order to reach this general goal, the hypotheses below were tested.

1. The total score of gifted students in experimental and control groups on the leadership skills scale is statistically different from the scores of non-gifted students.
2. There is a statistically significant difference between the pre-test and post-test scores of gifted students in the experimental group
3. There is a statistically significant difference between the post-test scores of gifted students in the experimental group and the post-test scores of gifted students in the control group.
4. There is a statistically significant difference between the pre-test and post-test scores of non-gifted students in the experimental group
5. There is a statistically significant difference between the post-test scores of non-gifted students in the experimental group and the post-test scores of non-gifted students in the control group.

Method

Research Design

In this research, a pre-test/post-test control group experimental design was used to determine the effectiveness of a leadership skills development program prepared to improve the leadership skills of students in the second level of primary education. The independent variable of the study is the leadership skills development program, and the dependent variable is the scores of students on the leadership skills scale.

Participants

Because of the experimental design, random sampling procedure was not performed in the study. The study group consisted of students in 6th grade from Beyazıt Primary School in Fatih/Istanbul, where gifted students took a differentiated program. The school was chosen due to the gifted education project and presence of some gifted students. For entrance to this school, students were identified as gifted or not by university staff. Mixed system was applied for gifted education in the school. It means that some of students in a class were gifted, but some of them were not gifted. Because of the high school entrance exam in Turkey, sixth grade students were chosen for the study in the school. In this study, 6/A section was chosen as the control group, and 6/B section was chosen as the experimental group. There were 21 students (7 gifted) in the experimental group and 20 students (6 gifted) in the control group. The scores of experimental and control groups on the leadership skills scale were compared, and the difference between scores was found not to be statistically important ($U=192{,}000$; $z=0.47$; $p>.05$) (Table 1). Therefore, control and experimental groups were regarded as equal in terms of leadership skills before the treatment.

Table 1
Mann-U Whitney Results Related to Pre-test of Leadership Skills Scale Scores of Experimental and Control Groups

Groups	*N*	*M*	*SD*	*M.R.*	*S.R.*	*U*	*Z*	*p*
Experimental	21	144,3	14,76	21,86	459,00			
Control	20	142,7	11,48	20,10	402,00	192,000	-,470	0,638
Total	41							

Research Instruments

Leadership skills scale (LSS). The LSS is a printed test developed by the researchers to measure the leadership skills of 6th, 7th, and 8th graders. It consists of 41 items based on self-evaluation. Testing of 517 students has determined the validity and reliability of the test. Through explanatory factor analysis for the construct validity of the LSS, it was observed that 41 items gather under 10 factors. These factors were: "problem solving," "group dynamics," "timidity," "goal setting," "empathy," "leading," "anger management," "perseverance," "creativity," and "speech communication." For convergent validity, the Roets Rating Scale for Leadership is used. The results demonstrated that there was positive and high correlation between the two scales ($r= 0.687$, $p <0.01$). The model fit of the scale was examined with confirmatory factor analysis. The fit indices were found as follows: $\chi 2=1393,16$ (sd=734, p.=.0000), $\chi 2/sd=1,89$, RMSEA=0.047, RMR=0.061; SRMR=0.046, GFI=0.90, AGFI=0.89, CFI=0.97, NFI=0.94, NNFI=0.96. The fit indices were within the range of acceptable values. The leadership skills scale's Cronbach's Alpha reliability coefficient was .89, split half coefficient was .81, and test retest reliability coefficient was .92. In addition, the difference between the lower and upper scores obtained from the items was statistically significant for all items. The LSS was a five-point Likert-type scale. Items were graded from 5 to 1, such as, "Always appropriate for me," "Usually appropriate for me," "Sometimes appropriate for me," "Barely appropriate for me," "Never appropriate for me." When the students get high scores from the scale, they are supposed to have high leadership skills.

The development of the leadership skills development program and its implementation. The goal of leadership skills development program was to help gifted and non-gifted students improve their leadership skills. Articles and publications about leadership training were reviewed to develop a program to use in the study. However, because the leadership skills programs were generally for adults, this issue was challenging.

In the first step of program development process, the theoretical basics of leadership, factors effecting leadership, and leadership development programs were examined. The programs and activities suggested by the researchers (McGregor, 2005; Plowman, 1981; House, 1980; Rickets & Rudd, 2002; Sisk, 2000; Silverman, 1993; Roets, 1986; Parker & Begnaud, 2004; Richardan & Feldhusen, 1987; Karnes, & Chauvin, 1985; Karnes & Bean, 2010; etc.) were reviewed. An eclectic frame of the

program was formed, taking sub-dimensions of the scale into consideration. Secondly, the competencies and skills that could be effective in the development of leadership were determined, and the theoretical base of the relationship between these skills and leadership was examined. Then, goals of competencies were specified. In the fourth step, the activities that were in line with the goals were selected to form the content of the program. Finally, durations of sessions and their frequencies were determined considering activities' durations.

The pilot program was implemented with two 6th graders in Beyazıt Primary School in 2010-2011. In this pre-application, program activities that were appropriate in terms of goals, duration, and content were specified; other activities were taken out or modified. After the pilot application, a 15-week leadership skills development program was established. The topics of the leadership skills development program were as follows:

- Basic leadership knowledge
- Problem solving
- Decision making
- Creativity
- Team building
- Communication and interaction
- Goals determination
- Motivation
- Self-confidence
- Developing good character
- Finding support
- Staying calm
- Timidity

The program was applied to the experimental group 1 hour per week for 15 weeks in Beyazıt Ford Otosan Primary School, where a project for gifted students was in progress. The program was implemented by the researchers. Therefore, there was no need to provide outside professional support for the personnel who would give the program.

Procedure

Sessions of the leadership skills development program were applied to experimental groups one hour in a week. It lasted 15 weeks throughout the 2011-2012 semesters. In order to test the efficiency of the program in the research, the leadership skills scale—whose reliability and validity were determined by the researchers—was given to the students as both a pre-test and post-test. Both the control and experimental groups took the pre-test and post-test at the same time. In this way, data was collected simultaneously.

Data Analysis

Because the number of participants in the control (n=20) and the experimental (n=21) groups was not adequate for parametrical analysis, a non-parametrical test was used in statistical analyses. In order to test whether the difference between pre-

test and post-test leadership skills scale scores of students in the experimental and control groups was significant or not, a non-parametrical Mann Whitney-U test and a Wilcoxon signed-rank test were used. The significance level was taken as 0.5.

Results

Prior to the data analysis, it was assumed that there would be a positive relationship between giftedness and leadership based on the previous literature on this topic. To test this hypothesis, leadership skills of gifted and non-gifted students in two groups were compared by a Mann Whitney-U test. The results are given in Table 2.

Table 2

Mann Whitney-U Test of Gifted and Non-Gifted Students' Leadership Skills Scale Scores

Students	***N***	***M***	***SD***	***M.R.***	***S.R.***	***U***	***Z***	***p***
Gifted	13	147,3	11,32	24,69	321,00			
Non-gifted	28	141,7	13,72	19,29	127,00	134,000	-1,346	0,178
Total	41							

As can be seen in Table 3, though the average score of gifted students (147,31) is higher than those of non-gifted students (=141,79), this difference is not statistically significant (U=134,000; z=-1,346; p>.05). In order to test whether the difference between gifted students' pre-test and post-test scores in the experimental group was statistically significant or not, a non-parametrical Wilcoxon signed-rank test was performed, and the results are given in Table 3.

Table 3

Gifted Students' Wilcoxon Signed-Rank Test Results Related to Their Leadership Skills Scale Posttest and Pretest Scores in Experimental Group

Scores	*Ranks*	*N*	*M.R.*	*S.R.*	*Z*	*p*
Total Score Posttest-Pretest	Negative	0	,00	,00	-2,366	0,018
	Positive	7	4,00	20,00		
	Ties	0				
	Total	7				
Problem Solving Posttest-Pretest	Negative	2	4,00	8,00	-1,023	0,306
	Positive	5	4,00	20,00		
	Ties	0				
	Total	7				
Group Dynamics Posttest-Pretest	Negative	2	3,50	7,00	-1,265	0,206
	Positive	5	4,20	21,00		
	Ties	0				
	Total	7				
Timidity Posttest-Pretest	Negative	4	2,88	11,50	-,424	0,671
	Positive	3	5,50	16,50		
	Ties	0				
	Total	7				
Goal setting Posttest-Pretest	Negative	3	2,67	8,00	-,135	0,892
	Positive	2	3,50	7,00		
	Ties	2				
	Total	7				
Empathy Posttest-Pretest	Negative	1	1,50	1,50	-1,633	0,102
	Positive	4	3,38	13,50		
	Ties	2				
	Total	7				
Leading Posttest-Pretest	Negative	1	2,00	2,00	-2,050	0,04
	Positive	6	4,33	26,00		
	Ties	0				
	Total	7				
Anger Man. Posttest-Pretest	Negative	0	,00	,00	-2,371	0,018
	Positive	7	4,00	28,00		
	Ties	0				
	Total	7				
Perseverance Posttest-Pretest	Negative	4	2,63	10,50	-,597	0,551
	Positive	3	5,83	17,50		
	Ties	0				
	Total	7				
Speech Com. Posttest-Pretest	Negative	2	3,00	6,00	-,378	0,705
	Positive	2	2,00	4,00		
	Ties	3				
	Total	7				
Creativity Posttest-Pretest	Negative	0	,00	,00	-1,342	0,18
	Positive	2	1,50	3,00		
	Ties	5				
	Total	7				

According to these results, the difference between gifted students' mean ranking was statistically significant for total score, and sub-dimensions of anger management and leading were in favor of post-tests ($p<.05$). Total scores of gifted students in the experimental group increased in statistically significant levels after the program. After this analysis, a Mann Whitney-U test was performed on gifted students' post-test scores on the leadership skills scale in order to test the difference between gifted students' post-test scores in the experimental group and gifted students' post-test scores in the control group. The results are given in Table 4.

Table 4

Gifted Students' Mann Whitney-U Test Results Related to Their Leadership Skills Scale Post-Test Scores in the Experimental and Control Groups

LSS	*Group*	*N*	*M.R.*	*S.R.*	*U*	*Z*	*p*
Total Score Posttest	Control	6	3,50	21,00	,000	-3,004	,003
	Experiment	7	10,00	70,00			
	Total	13					
Problem Solving Posttest	Control	6	6,00	36,00	15,000	-,864	,387
	Experiment	7	7,86	55,00			
	Total	13					
Group Dynamics Posttest	Control	6	5,67	34,00	13,000	-1,156	,248
	Experiment	7	8,14	57,00			
	Total	13					
Timidity Posttest	Control	6	4,17	25,00	4,000	-2,473	,013
	Experiment	7	9,43	66,00			
	Total	13					
Goal Set. Posttest	Control	6	5,25	31,50	10,500	-1,517	,129
	Experiment	7	8,50	59,50			
	Total	13					
Empathy Posttest	Control	6	4,00	24,00	3,000	-2,657	,008
	Experiment	7	9,57	67,00			
	Total	13					
Leading Posttest	Control	6	3,58	21,50	,500	-2,974	,003
	Experiment	7	9,93	69,50			
	Total	13					
Anger Man. Posttest	Control	6	5,08	30,50	9,500	-1,661	,097
	Experiment	7	8,64	60,50			
	Total	13					
Perseverance Posttest	Control	6	4,33	26,00	5,000	-2,305	,021
	Experiment	7	9,29	65,00			
	Total	13					
Speech Com. Posttest	Control	6	6,42	38,50	17,500	-,535	,593
	Experiment	7	7,50	52,50			
	Total	13					
Creativity Posttest	Control	6	5,92	6	14,500	-,972	,331
	Experiment	7	7,93	7			
	Total	13		13			

According to the results of the analysis that was performed to determine whether the difference between gifted students' post-test scores in the experimental and control groups was statistically significant or not, the researchers found that there was a statistically significant difference in total score and in sub-dimensions of empathy and leading at the level of 0.01; and in the sub-dimensions of timidity and perseverance at the level of 0.05 in favor of the experimental group. For other sub-dimensions, though the post-test scores of the experimental group were higher, there was no statistically significant difference. Researchers observed that the program designed to develop leadership skills was effective to increase gifted participants' total scores and sub-dimension scores on the scale. After the gifted students in the experimental group, non-gifted students were also examined in terms of leadership skills. A non-parametrical Wilcoxon signed-rank test was performed to test the difference between pre-test and post-test scores of non-gifted students in the experimental group on the leadership skills scale and the results are given in Table 5.

Table 5

Non-Gifted Students' Wilcoxon Signed-Rank Test Results Related to Their Leadership Skills Scale Posttest and Pretest Scores in the Experimental Group

Scores	Ranks	N	M.R.	S.R.	z	p
Total Score Posttest-Pretest	Negative	1	2,00	2,00	-3,171	,002
	Positive	13	7,92	103,00		
	Ties	0				
	Total	14				
Problem Solving Posttest-Pretest	Negative	2	6,00	12,00	-2,135	,033
	Positive	10	6,60	66,00		
	Ties	2				
	Total	14				
Group Dyn. Posttest-Pretest	Negative	2	3,50	7,00	-2,694	,007
	Positive	11	7,64	84,00		
	Ties	1				
	Total	14				

Table 5 Continue

Scores	Ranks	N	M.R.	S.R.	z	p
Timidity Posttest-Pretest	Negative	3	3,00	9,00	-2,365	,018
	Positive	9	7,67	69,00		
	Ties	2				
	Total	14				
Goal Set. Posttest-Pretest	Negative	5	5,20	26,00	-1,668	,095
	Positive	9	8,78	79,00		
	Ties	0				
	Total	14				
Empathy Posttest-Pretest	Negative	2	1,50	3,00	-2,835	,005
	Positive	10	7,50	75,00		
	Ties	2				
	Total	14				
Leading Posttest-Pretest	Negative	0	,00	,00	-3,068	,002
	Positive	12	6,50	78,00		
	Ties	2				
	Total	14				
Anger Man. Posttest-Pretest	Negative	4	5,25	21,00	-1,725	,085
	Positive	9	7,78	70,00		
	Ties	1				
	Total	14				
Perseverance Posttest-Pretest	Negative	5	8,30	41,50	-,696	,486
	Positive	9	7,06	63,50		
	Ties	0				
	Total	14				
Speech Com. Posttest-Pretest	Negative	2	6,50	13,00	-1,796	,072
	Positive	9	5,89	53,00		
	Ties	3				
	Total	14				
Creativity Posttest-Pretest	Negative	1	10,00	10,00	-1,854	,064
	Positive	8	5,00	45,00		
	Ties	5				
	Total	14				

When looking at the non-gifted students' pre-test and post-test results, the difference between post-test and pre-test scores was found to be significant at the level of 0.01 for the total score and the sub-dimensions of group dynamics, empathy, and leading; and at the level of 0.05 for the sub-dimensions of problem solving and

timidity. This difference was in favor of post-test scores. It was observed that the total leadership score of non-gifted students in the experimental group significantly increased. After the examination of post-test and pre-test scores of non-gifted students in the experimental group, to scrutinize post-test scores of non-gifted students in the experimental group and in the control group, a Mann Whitney-U test was calculated (Table 6).

Table 6

Non-Gifted Students' Mann Whitney-U Test Results Related to Their Leadership Skills Scale Post-Test Scores in the Experimental and Control Groups

LSS	Group	N	M.R.	S.R.	U	Z	P
Total Score Posttest	Control	14	9,11	127,50	22,5	-3,48	0,001
	Experiment	14	19,89	278,50			
	Total	28					
Problem Solving Posttest	Control	14	12,64	177,00	72	-1,199	0,231
	Experiment	14	16,36	229,00			
	Total	28					
Group Dynamics Posttest	Control	14	9,61	134,50	29,5	-3,244	0,001
	Experiment	14	19,39	271,50			
	Total	28					
Timidity Posttest	Control	14	10,43	146,00	41	-2,633	0,008
	Experiment	14	18,57	260,00			
	Total	28					
Goal Set. Posttest	Control	14	11,43	160,00	55	-1,994	0,046
	Experiment	14	17,57	246,00			
	Total	28					
Empathy Posttest	Control	14	11,79	165,00	60	-1,779	0,075
	Experiment	14	17,21	241,00			
	Total	28					
Leading Posttest	Control	14	9,21	129,00	24	-3,46	0,001
	Experiment	14	19,79	277,00			
	Total	28					
Anger Man. Posttest	Control	14	12,32	172,50	67,5	-1,412	0,158
	Experiment	14	16,68	233,50			
	Total	28					
Perseverance Posttest	Control	14	12,75	178,50	73,5	-1,134	0,257
	Experiment	14	16,25	227,50			
	Total	28					
Speech Com. Posttest	Control	14	11,86	166,00	61	-1,799	0,072
	Experiment	14	17,14	240,00			
	Total	28					
Creativity Posttest	Control	14	12,04	168,50	63,5	-1,664	0,096
	Experiment	14	16,96	237,50			
	Total	28					

As can be seen in Table 6, non-gifted students in the experimental group had statistically higher post-test scores in the total score and in the sub-dimensions of group dynamics, timidity, leading ($p<.01$), and goal setting ($p<.05$) than non-gifted students in the control group. However, although the average post-test scores in the sub-dimensions of problem solving, empathy, anger management, perseverance, speech communication, and creativity were higher, there was no statistically significant difference for them. Based on these results, it can be concluded that the program has positive effects on non-gifted students' leadership skills.

Discussion and Conclusion

The main aim of this study was to design and test the efficiency of an educational program to develop gifted and non-gifted students' leadership skills. The results of the study demonstrated that the scores of both gifted and non-gifted students to whom the program was applied increased compared with their scores in the beginning and with the scores of gifted and non-gifted students who did not participate in the program. This improvement in the scores of gifted and non-gifted students' post-test scores on the leadership skills scale in the experimental group revealed that the leadership skills of students who participated in the program improved, and the program was effective in this improvement.

In the literature, a specific parallelism between giftedness and leadership is usually acknowledged (Milligan, 2004). However, our study did not provide evidence to this relationship; although the group leadership skills average score for gifted students in the study was higher than non-gifted students' scores, this difference was not significant. This case may be due to the school's special situation, because in this school—differently from other schools—courses such as social skills, thinking skills, and creativity, are given to both gifted and non-gifted students in the same way. A mixed system was applied in the school. Both gifted and non-gifted students are in the same class in this system. Other studies show that the education given in Beyazıt Ford Otosan Primary School contributes to development of students in some aspects, especially for non-gifted students, and the difference between gifted students and non-gifted students may be decreased in this way (Leana, 2005). A differentiated program may have diminished the difference between gifted and non-gifted students in terms of their leadership skills. Besides, considering the fact that the students were in puberty, the students may have affected each other.

In the experimental group, the difference between non-gifted students' pre-test and post-test scores on the leadership scale was found to be significant in favor of post-test scores for the total score and for the sub-dimensions of group dynamics, empathy, leading, problem solving, and timidity. Besides, average post-test scores of total and all sub-tests were higher than pre-test averages. When post-test scores of non-gifted students in the control and experimental groups were compared, the experimental group had higher scores in the total score and in the sub-dimensions of group dynamic, timidity, leading, and goal-setting. According to these results, researchers observed a development in non-gifted students' leadership skills, owing to the program. Previous literature supports the idea that leadership can be

developed with some programs starting in puberty (Porter, 1981; Foster, 1981; Emmerich, 1983; Hensel & Franklin, 1983; Maher, 1985-86; Feldhusen ve Kennedy, 1988; Lee, 1989; Evans, 1982; Washburn, 1982; Stiles, 1986; Leatt, 1987; Gray & Pfeiffer, 1987; Karnes, 1989 as cited in Smith, et al.,1991). In a study by Carter and Spotanski (1989), in 9 leadership scales out of 10, which were applied to 3,437 students who took leadership training, students who took leadership training got higher scores than the ones who did not participate in leadership training.

In the experimental group, when researchers examined the gifted students' pre-test and post-test scores, a statistically significant development was observed in post-test scores for the total score and for the sub-dimensions of anger management and leading. Besides, all post-test scores of sub-tests were higher than pre-test scores, except goal-setting and speech communication. The difference between post-test scores of gifted students in the control group and experimental group was also found to be significant in favor of the experimental group for the total score and for the sub-dimensions of empathy, leading, timidity, and perseverance. The leadership skills development program was seen to be effective in improving gifted students' total scores on the leadership scale. The short duration of the program and a differentiated educational program in the school may have affected the change in some sub-dimensions. This result of the study supports the previous work on this topic. According to Karnes and Bean (1996), many previous studies had revealed that even short programs for 1 or 2 weeks could develop gifted students' leadership skills (Follis & Feldhusen, 1983; Karnes, Meriweather & D'llio, 1987; Myers, Slavin & Southern, 1990; Sisk, 1988; Smith, Smith & Barnette, 1991). Training programs may help gifted adolescents think independently, develop deciding skills, know different leadership styles, and discover their own leadership potentials; and gifted adolescents are aware of these contributions (Carpenter, 1996). Gifted students have the skills of understanding and comprehending teaching experiences. They are responsive to gaining their own and others' leadership skills and roles (Magoon, 1980). Therefore, leadership training in the study may have contributed to their leadership skills. According to research results, it can be concluded that leadership development programs can be useful in developing both gifted and non-gifted students' leadership skills.

When we look at the limitation of the study, the leadership skills development program that was developed could not be integrated into the other educational curricula in the school. Studies related to this issue may be useful to improve effectiveness of the program. With another study, developments in the leadership skills of gifted and non-gifted students from different social-economical backgrounds in schools giving standard education can be investigated, and comparisons can be made. In order to create a framework for the leaders of the future, leadership programs should be developed at the level of preschool education, primary education, and high school; and their validities should be studied.

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Liderlik Geliştirme Programının Üstün Zekâlı Olan ve Olmayan Öğrencilerin Liderlik Becerilerine Etkisi

Atıf:

Ogurlu Ü., & Emir S. (2014). Effects of a leadership development program on gifted and non-gifted students' leadership skills. *Eurasian Journal of Educational Research*, 55, 223-242. http://dx.doi.org/ 10.14689/ejer.2014.55.13

Özet

Problem Durumu: İnsanoğlunun başarısı ve ilerlemesi adına etkin liderlik büyük önem taşımaktadır. Liderlik geliştirme stratejik bir gereklilik halini almaktadır. Birçok araştırmacı liderliğin öğretilebilir kavram ve beceriler olduğu ve ergenlikle birlikte programlar yardımıyla geliştirilebileceği düşüncesini desteklemektedir. Etkili bir lideri tanımlayan özellikler ile üstün zekâlı ve yetenekli birisini tanımlayan özellikler arasında birçok paralellik bulunmaktadır. Üstün zekâlılık ve liderliğin belli bir seviyede paralel olduğu varsayımına dayanarak üstün zekâlılar eğitimindeki birçok araştırmacı liderlik eğitiminin üstün zekâlı ve yeteneklilere yönelik

programların önemli bir bileşeni olduğunu düşünmektedirler. Liderlik eğitiminin ihtiyaç olduğu konusunda genel bir uzlaşı olmasına rağmen liderlik öğretim süreci ve liderlik programlarının etkililiği konusunda çok az araştırma yapılmıştır. Araştırmalar, liderliğin soyut bir kavram olarak kaldığını ve okul müfredatında göz ardı edildiğini, birçok okulun geleneksel akademik eğitimle liderlik eğitimini denkleştiremediğini ayrıca öğretmenlerin genellikle liderlik becerilerini geliştirme eğitimi almadıklarını ortaya koymuştur. Liderlik becerisinin fark edilip geliştirilmesi ve liderlik alanında üstün zekâlı ve yeteneklilerin eğitilmesi konusunda müfredata bağlı ve müfredat dışı etkinliklere ihtiyaç vardır. Liderlik becerilerinin öğretilmesi ve standart okul müfredatında uygulanması mümkündür. Gençler, liderlik rollerini ve sorumluluklarını alabileceği fırsatlara ihtiyaç duymaktadır. Liderlik eğitimi en ulaşılabilir mekân olan okulda tüm öğrenciler için olmalıdır. Araştırmalara bakıldığında liderlik ve üstün yeteneklilik hakkında çok az araştırma bulunmakta ve okullarda güçlü liderlik potansiyeline sahip öğrenciler için liderlik eğitim programlarının yetersiz olduğu görülmektedir. Ülkemizde liderlik becerilerini geliştirme eğitimi ile ilgi yok denilecek kadar az araştırma olmasından dolayı ilköğretimin ilköğretim ikinci kademesine devam eden üstün zekâlı ve yetenekli olan ve olmayan öğrencilerin liderlik becerilerini geliştirmeyi amaçlayan liderlik becerileri geliştirme programının etkisinin araştırıldığı deneysel bir çalışmaya ihtiyaç duyulmuştur.

Araştırmanın Amacı: Bu araştırma, ilköğretim ikinci kademesine devam eden (6-7-8. sınıf) üstün zekâlı ve yetenekli olan ve olmayan öğrencilere uygulanan liderlik becerileri geliştirme programı, öğrencilerin liderlik beceri düzeylerini geliştirmede etkisini araştırmak amacıyla yapılmıştır. Bu kapsamda geleceğin dünyasında liderlik yapacak üstün zekâlı ve yetenekli olan ve olmayan öğrencilerine yönelik liderlik becerileri geliştirme programı hazırlanmıştır.

Araştırmanın Yöntemi: Araştırmada ilköğretimin ikinci kademesine devam eden öğrencilerin liderlik becerilerini geliştirmeye yönelik hazırlanan liderlik becerilerini geliştirme programının etkililiğini ortaya koymak amacıyla deneysel yöntemin ön test-son test kontrol grup deseni kullanılmıştır. Çalışma İstanbul İli Fatih ilçesinde bulunan üstün zekâlı ve yetenekli öğrencilere yönelik farklılaştırılmış eğitim uygulayan Beyazıt İlköğretim Okulu'nun 6. sınıfına devam eden öğrencilerden oluşturulmuştur. 21 (7 üstün zekâlı ve yetenekli) öğrenci deney grubunda; 20 (6 üstün zekalı ve yetenekli) öğrenci kontrol grubunda olmak üzere çalışma grubu oluşturulmuştur. Toplam 15 oturumda uygulanan programın etkililiğini sınamak amacıyla ön test ve son test olarak araştırmacılar tarafından geçerlik ve güvenirlik çalışmaları yapılmış olan liderlik becerileri ölçeği uygulanmıştır.

Araştırmanın Bulguları: Araştırma bulgularına göre çalışma grubundaki üstün zekâlı ve yetenekli öğrencilerin liderlik becerileri puan ortalaması, üstün zekâlı ve yetenekli olmayan öğrencilerin ortalamasından yüksek olmasına rağmen bu farklılık anlamlı çıkmamıştır. Bu durum çalışmanın yapıldığı okulun özel durumundan kaynaklanmış olabilir. Deney grubundaki üstün zekâlı ve yetenekli olmayan öğrencilerin liderlik ölçeğinden aldıkları ön test ve son test puanları arasındaki fark istatistiksel olarak toplam puan ile grup dinamiği, empati, önderlik, sorun çözme ve çekingenlik alt

boyutlarında son test lehine anlamlı bulunmuştur. Bununla birlikte toplam puanları ve tüm alt test puanlarının son test ortalamaları ön test ortalamalarından yüksektir. Ayrıca deney ve kontrol grubunda yer alan üstün zekâlı ve yetenekli olmayan öğrencilerin liderlik becerileri ölçeğinin son test uygulamasından almış oldukları puanlarının karşılaştırılmasında toplam puan ve grup dinamiği, çekingenlik, önderlik, hedef belirleme alt boyutlarında deney grubu lehine anlamlı bir fark bulunmuştur.

Deney grubunu oluşturan üstün zekâlı ve yetenekli öğrencilerin liderlik ölçeğinden aldıkları ön test ve son test puanları karşılaştırıldığında toplam puan ile öfke kontrolü ve önderlik alt boyutlarında son test puanlarının anlamlı şekilde arttığı görülmüştür. Bununla birlikte hedef belirleme ve hitabet alt testleri hariç diğer tüm alt test puanlarının son test ortalamaları ön test ortalamalarından yüksektir. Ayrıca deney grubundaki üstün zekâlı ve yetenekli öğrenciler ile kontrol grubunda yer alan üstün zekâlı ve yetenekli öğrencilerin liderlik becerileri ölçeğinin son test puanları değerlendirildiğinde, gruplar arasında toplam puan ve empati, önderlik, çekingenlik ve azim alt boyutlarında ise deney grubu lehine anlamlı fark bulunmuştur.

Araştırmanın Sonuçları ve Önerileri: Bu araştırmada, üstün zekâlı ve yetenekli olan ve olmayan öğrencilerin liderlik becerilerini geliştirmek amacıyla bir eğitim programı hazırlamak ve bu programın etkililiğini sınamak hedeflenmiştir. Araştırma sonucunda ön test ve son test ölçümlerinde programa katılan hem üstün zekâlı ve yetenekli olan hem de üstün zekâlı ve yetenekli olmayan öğrencilerin puanlarının başlangıçtaki puanlarına ve bu programa katılmayan öğrencilerin puanlarına göre yükseldiği görülmüştür. Deney grubundaki üstün zekâlı ve yetenekli olan ve olmayan öğrencilerin liderlik becerileri ölçeğinde son test puanlarında görülen bu yükselme, programa katılan öğrencilerin liderlik becerilerinin geliştiğini ve eğitim programının bu yönde etkili olduğunu göstermektedir. Geleceğin liderlerine bir çerçeve oluşturma için liderlik programlarının okulöncesi, ilköğretim ve ortaöğretim seviyesinde geliştirilip geçerliliğinin sağlanması gerekir. Ayrıca üstün zekâlı ve yetenekli çocuklardaki liderlik potansiyelini göz önünde bulundurularak üstün yeteneklilerle ilgili yapılacak eğitimlere de liderlik eğitim programı yerleştirilmelidir.

Anahtar Sözcükler: üstün zekâlı ve yetenekli öğrenciler, liderlik, liderlik geliştirme programı, liderlik becerileri ölçeği