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## **The Effectiveness of Leadership Skills Development Program for University Students**

### **Üniversite Öğrencilerine Yönelik Liderlik Becerileri Geliştirme Programının Etkililiği**

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#### **Abstract**

The aim of this study was to examine the effectiveness of a leadership skills education program for higher education students. In this program, education was provided to improve the desire for struggle and goal setting, communication skills, group skills, problem-solving skills, decision-making skills, responsibility awareness, trusting and trustworthiness awareness, leadership awareness and emotional awareness within the framework of leadership skills. The study group of the research consists of final-year students with the average age of 23.8 years studying at the Faculty of Economics of Karabük University in the 2016-2017 academic year. The data of the study were collected with the “Youth leadership characteristics scale”, “Emotional self-awareness scale” and “Awareness of leader and leadership scale”. The retrospective pretest-posttest experimental model was used in the study. The differentiation levels of the pretest and posttest scores of the students included in the education program were examined with the Wilcoxon signed-rank test. It was observed at the end of the study that the desire for struggle and goal setting, communication skills, group skills, problem-solving skills, decision-making skills, responsibility awareness, trusting and trustworthiness awareness, leadership awareness and emotional awareness levels of the students who participated in the education program significantly increased from a moderately sufficient level to a quite sufficient level. It was indicated that the applied leadership skills education program was effective.

**Keywords:** Leadership skills development program, Leadership skills, Student leadership, Youth leadership, University students skills.

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## Öz

Bu araştırmanın amacı, yükseköğretim öğrencilerine dönük olarak geliştirilen bir liderlik becerileri eğitimi programının etkililiğinin incelenmesidir. Bu programda liderlik becerileri çerçevesinde mücadele isteği ve hedef koyma, iletişim becerileri, grup becerileri, problem çözme becerileri, karar verme becerileri, sorumluluk farkındalığı, güven duyma ve güvenilir olma farkındalığı, liderlik farkındalığı ve duygusal farkındalığı geliştirmeye yönelik bir eğitim verilmiştir. Araştırmanın çalışma grubunu 2016-2017 yılında Karabük Üniversitesi'ndeki ortalama yaşı 23.8 olan iktisat fakültesi son sınıf öğrencileri oluşturmaktadır. Araştırmanın verileri “Gençlik Liderlik Özellikleri Ölçeği”, “Duygusal Benlik Bilinci Ölçeği” ve “Lider ve Liderlik Hakkında Farkındalık Ölçeği” ile toplanmıştır. Çalışmada geçmişe dayalı öntest-son test deneysel modeli kullanılmıştır. Eğitim programında yer alan öğrencilerin öntest ve sontest puanlarının farklılaşma düzeyleri Wilcoxon işaretli sıralar testi ile sınanmıştır. Araştırma sonunda eğitim programına katılan öğrencilerde mücadele isteği ve hedef koyma, iletişim becerileri, grup becerileri, problem çözme becerileri, karar verme becerileri, sorumluluk farkındalığı, güven duyma ve güvenilir olma farkındalığı, liderlik farkındalığı ve duygusal farkındalık düzeylerinin orta derecede yeterli düzeyden oldukça yeterli düzeye anlamlı bir şekilde yükseldiği görülmüştür. Uygulanan liderlik becerileri eğitimi programının etkili olduğu ortaya konulmuştur.

**Anahtar kelimeler:** Liderlik becerileri gelişim programı, Liderlik becerileri, Öğrenci liderliği, gençlik liderliği, Üniversite öğrenci becerileri.

## Introduction

The fact that the youth are raised as qualified individuals in their own societies has become an increasingly important issue with the changing social structure. However, the young population has to face different problems. It is observed that these problems are mostly unemployment, harmful substance use, free time use and educational opportunities. The global youth unemployment rate is 12.6% between the ages of 15-29 years (OECD [Organisation for Economic Co-Operation and Development], 2013) and the alcohol use rate among the youth varies between 30% and 70% in different countries around the world (WHO [World Health Organization], 2014). Substance use is considerably high in the youth between the ages of 15-24 years, and it is among the significant causes of death (EMCDDA [European Monitoring Centre for Drugs and Drug Monitoring], 2012). It has been observed in a study conducted that the youth between the ages of 14-19 years spend 4 minutes on average on reading books on weekends and spend 52 minutes in the virtual environment (BLS [Bureau of

labour statistics U.S. department of labour], 2014). As it can be understood from the statements above, the youth have difficulty in facing different problems, and they look for a solution by some other means. In this regard, higher education youth is at risk. This is because they may encounter different individual or social problems both during school years and after graduation. In this respect, it is possible to say that it is important to train them during university years in a way that they can cope with these problems. In other words, universities should take some important duties to train students.

On the other hand, one of the most important duties of higher education is graduating individuals with certain skills who will direct different organizations in the future (Hilliard, 2010). Social change reveals this necessity (Burkhardt & Zimmerman-Oster 1999). According to Astin and Astin (2000), one of the most important duties of higher education is to train individuals with different leadership skills and universities must provide qualified leadership education to students. At this point, it is considered that studies on improving the leadership skills of the youth take a significant place. The studies on the leadership characteristics of the youth have a critical importance for trying to increase the level of countries' welfare (NCLD [National Consortium on Leadership and Disability for Youth], 2014; Ngai, Cheung, Ngai and To, 2012). As it can be understood from these statements, improving the leadership skills of the youth may help to solve different problems they encounter and make the youth more prepared for life. In this context, intervention programs for improving the leadership characteristics of the youth studying at higher education can contribute to the development of the youth.

There are variety of studies in the literature both on students studying at higher education and on the effectiveness of leadership education programs at other school levels (e.g., Hindes, Thorne, Schwean and McKeough, 2008; Martel, 1989; Meyer, 1995; Seever, Dormody, Clason, 1995). It has been stated in a meta-analysis study conducted that 65% of the sample consists of higher education students in the studies conducted on the effectiveness of the leadership training (Avolio, Chan and Chan, 2005). However, it is observed that the studies on improving leadership skills in the national literature are conducted at different age levels (Alkan, 2009; Babacan, 2008; Gündüz and Duran, 2016; Kavak, 2013; Ogurlu, 2012; Tüysüz, 2007; ; ) and they are limited at the higher education level (Külekçi, 2016). On the other hand, it is observed that the leadership skill acquisition program at the university level among these studies has been conducted by Külekçi (2016). Külekçi (2016) investigated the effectiveness of the education program on the basis of leadership skills based on social responsibility in the study conducted with university students. According to this study, it was observed that the leadership skills and the sense of social responsibility of students improved. Furthermore,

most of the studies conducted on university students in the national literature are designed in descriptive models (Avcı, 2009; Birol, 2005; Çar, 2013; Çelik and Sünbül, 2008; Durmuş, 2011; Güneş, 2010; Soyünen, 2002). As it can be understood from these statements, it is possible to say that new studies are required. Thus, it is expected that testing the effects of leadership education programs provides important data to policy makers and practitioners. Furthermore, although the studies related to the leadership development are frequently discussed in administrative areas, they do not attract enough attention in adolescence or youth (Dempster and Lizzio, 2007; Murphy and Johnson, 2011). In other words, this study may well contribute to the the literature. This study aims to contribute to the expansion of national literature. Thus, it is desired to draw attention to applications related to leadership education in higher education.

### **Leadership and leadership characteristics that can be provided to higher education students**

Leadership is a concept addressed in the context of process, effect, audience and purpose. In other words, a targeted duty requires affecting and being affected in relation to the fact that the members of the group reach this goal (Northouse, 2010) and the character and character effects are present in leadership (Bass, 1981). In accordance with the shared goals, it is defined as motivating a group (Gardner, 1990) and creating an effect on the others about what/how they will do as individuals and in the group and a process that makes it easier to reach a set of common goals (Yukl, 2010). Leadership qualifications that university students should have are addressed at the level of personal and interpersonal relationships.

It is stated that it is necessary to focus on increasing personal and interpersonal competencies for effective leadership (Bass, 1990; Conner and Strobel, 2007). It is possible to say that these competencies are similar for the higher education youth. The qualifications of leaders that can be provided to the youth in higher education are leadership knowledge, group skills, problem-solving and decision-making skills, motivation, self-confidence, personal and social responsibility (Addison, 1985), interpersonal relationships, teamwork, directing others, communication skills (NCWD) [National Collaborative on Workforce and Disability for Youth], 1985). Moreover, when the results of different study reports are examined, it is stated that leadership characteristics in the young people are problem-solving skills, goal setting skills, decision-making skills, group skills, group values, individual values, communication skills, motivation, social and moral responsibility, conflict management, self-knowledge, stress management, emotional awareness, self-regulation, self-management, management skills, being a model, critical thinking skills, taking risks, causing positive changes (Cansoy

and Turan, 2016). In this regard, the leadership components targeted to be developed within the context of this study are the desire for struggle and setting goals, communication skills, group skills, problem-solving skills, decision-making skills, responsibility skills, trusting and trustworthiness, awareness of the effective leader and leadership and emotional awareness. Among these qualifications, (i) *the desire for struggle and goal setting* is that individuals are decisive and determined in trying to overcome difficulties; (ii) *ability to establish communication* is using all kinds of communication channels effectively; (iii) *group skills* indicate the ability to work in a group and direct group members; (iv) *trusting and trustworthiness* are listening to others, establishing warm and reliable relationships; (v) *decision-making skills* indicate the ability to manage decision making processes successfully; (vi) *problem-solving skills* suggest the ability to identify the problem and succeed in solving it; (vii) *responsibility* is the awareness of the personal and social responsibilities of individuals (Cansoy and Turan, 2016); (viii) *emotional awareness* emphasizes being aware of emotions, that a person is aware of his/her own emotions and effects, defining them, and the ability to understand one's own feelings (Goleman, 2005); (ix) *awareness related to the concept of leadership* dimension indicates that a person is aware of the importance of the leadership knowledge, effective leadership behaviors and leadership (Fertman and Vanlinden, 1999).

### **Leadership education programs**

The studies indicate that leadership characteristics can be improved depending on the acquisition of certain skills. Leadership training and development are the attempts that ensure that researchers explore themselves to make an individual powerful in the areas of knowledge, skill, ability, motivation and leadership (Avolio, Reichard, Hannah, Walumbwa, Chan, 2009). Leadership education programs can help young people to improve their skills, cooperate, change themselves and think in the social context (Redmond and Dolan, 2014). Avolio, Reichard, Hannah, Walumbwa, Chan (2009) concluded in a meta-analysis study they conducted on the leadership development programs that the programs have a 66% positive effect.

Leadership education programs focus on the attitudes of students in 3 different dimensions. These are knowledge, behavior, and action. The *knowledge* dimension emphasizes knowing yourself and others and the knowledge directing the way you think and your behaviors, *behavior* emphasizes understanding and improving your personal characteristics and *action* emphasizes improving interpersonal skills (Rosch and Anthony, 2012; Komives, Lucas and McMahan, 2007). Basically, it is possible to say that different programs are concentrated in these three conceptual frameworks. In the literature, it is focused on some characteristics of

effective leadership programs. According to Woyach and Cox (1997), the characteristics of effective leadership programs are as follows: (i) the youth should be helped with learning knowledge and skills, (ii) it should be ensured that they understand the social values, beliefs and history of the society they live in, (iii) they should be helped with improving leadership styles and personal strengths, (iv) ethics, values and ethical mind development should be encouraged, (v) respect for differences should be supported, (vi) respect, trust and expectation should be made clear, (vii) experience-based learning should be considered important, (viii) awareness of providing service should be raised, (ix) opportunities should be provided for evaluating personal thoughts and personal and collaborative learning opportunities should be created, (x) they should be encouraged to participate in team works, (xi) it should be ensured that they work with consultants, role models and adults, (xii) it should be ensured that they develop within the context of clear goals and targets. Target audience, program philosophy, and program intensity are important in leadership education programs. Target audience emphasizes for whom the program is created, philosophy emphasizes the leadership model and conceptual framework and program intensity emphasizes the time required for participation (Rosch and Anthony, 2012). On the other hand, effective leadership programs should provide leadership knowledge and self-knowledge acquisitions in which leadership can be learned. In addition to this, learning outcomes should be determined at the end of the program, and practice opportunities should be provided (Roberts, 2007; Zimmerman-Oster and Burkhardt, 1999).

It is observed that leadership programs deal with leadership in different dimensions because of its versatile structure (Hindes et al., 2008). There are a line of models and approaches within the framework of leadership development. In this regard, the current study is structured in accordance with the leadership curriculum model suggested by Van Linden and Fertman (1998) and then developed by Ricketts and Rudd (2002). In this model, five main curriculum dimensions were determined by emphasizing the cognitive, behavioral and affective development dimensions of leadership development. These dimensions are having knowledge of leader and leadership, attitude and desire to act like a leader, decision-making and critical thinking skills, interpersonal relationships and skills of knowing yourself and communication skills. It is respectively aimed in (i) *the dimension of having knowledge of leaders and leadership* to provide participants with the basic knowledge about leadership, to make participants see that they can apply these characteristics to themselves and understand the abstract leadership concepts; in (ii) *the attitude and desire to act like a leader* dimension to understand the desire to lead and the importance of the fact that the person defines himself/herself from different perspectives and recognizes his/her skills and to realize the importance of the need for establishing relationships, gaining power and success for

leadership in this regard, in (iii) *decision-making and critical thinking skills* to understand independent thinking, to understand that (iv) *communication skills* are a means in leadership practice, in (iv) *skills of knowing interpersonal relationships and yourself* to understand that working with others will get easier as participants become aware of themselves. In this model, individuals focus on the fact that leadership is not a characteristic of just one person, understanding leadership and personal leadership skills by means of awareness, interaction, and integration (Ricketts and Rudd, 2002). This model is established on the experimental learning model (Hindes et al., 2008). According to this model, learning involves gaining experience, thinking about experiences, abstract concepts and applying these concepts to new situations by generalizing (Owen, Hodgson, Gazzard, 2007). Therefore, current program was designed within the context of the frameworks expressed above.

As it is understood from the statements above, it is considered that some leadership skills of students can be improved with leadership education programs. In this respect, an answer will be searched to the question of “Does the *leadership skills education program* create a significant difference in the desire for struggle and setting goals, communication skills, group skills, problem-solving skills, decision-making skills, responsibility skills, trusting and trustworthiness, awareness of leader and leadership and emotional awareness levels of university students?”

## **Method**

In this study, the retrospective pretest and posttest experimental models were used to see how effective the leadership skills education program was. The independent variable of the study is the leadership skills development program, and the dependent variable is the leadership development level scores.

## **Study Group**

The study group of the research consists of final-year students studying at the Faculty of Economics of Karabuk University in the 2016-2017 academic year. 10 of the participants are female, 10 are male students, and their average age is 23.8 years. The most important reason for the selection of this study group are the fact that the content of the leadership skills development program is appropriate for being provided within the context of the elective course, time problem and the fact that it is an easily accessible group. 20 students participated in this education program. The study was conducted in the spring term as 1-1.5 hours per week. The researcher is also the instructor of the program because it is important that

instructors have some pedagogical background and leadership knowledge to carry out such a program.

### Process steps

During the study process, the practice content was designed by scanning leadership education programs in the literature. Before proceeding to the practice step of the study, the practice contents were firstly prepared as 9 different modules by receiving expert opinions. These modules prepared were tested in the groups of 5-10 people, and required arrangements were made in the content. After preparing the modules, a guidebook was created (Turan, Cansoy and Türkoğlu, 2017). Each participant was provided with one of these books during practice. A program was prepared to last for 10 weeks in total. The content of the education program is presented in Table 1.

**Table 1:** The content of the program

| <b>Week</b>     | <b>Education titles</b>                      | <b>Content</b>   |
|-----------------|--|--|
| <b>1st week</b> | Understanding-comprehending leadership       | What is leadership? Who becomes a leader? Can leadership be learned?                                       |
| <b>2nd week</b> | Leadership and knowledge                     | Self- What are self-knowledge, knowing and controlling emotions in leadership? How do you know yourself?   |
| <b>3rd week</b> | Building blocks of leadership-               | ofWhat are the characteristics of leadership? Why are trustworthiness and trusting the keys to leadership? |
| <b>4th week</b> | The behaviors- responsibility skills leaders | With which behaviors do leaders stand out? What is the relationship between responsibility and leadership? |
| <b>5th week</b> | Struggle and goal setting skills             | Why is it important for the leader to struggle in life? What kind of goals should be set?                  |
| <b>6th week</b> | Group skills                                 | Why is the relationship between the group and leader important?  |
| <b>7th</b>      | Problem-solving                              | andHow is the problem-solving capacity formed? What is its   |



|                  |                                    |   |
|------------------|------------------------------------|---|
| <b>week</b>      | decision-making skills             | relationship with decision-making? Why should the leader be a good problem solver?  |
| <b>8th week</b>  | Ability to establish communication | Why does establishing communication have a vital importance in leadership? What are the ways of establishing communication?   |
| <b>9th week</b>  | Leadership in films                | Watching the film of Gandhi and its evaluating on the basis of what has been learned within the context of leadership characteristics.  |
| <b>10th week</b> | Leadership in films                | This course will attempt to make the dimensions of <i>Leadership Challenge</i> developed by Kousez and Posner (2017) comprehended by showing Gandhi film to the participants. |

### **Implementation of the Program**

During the implementation of the program, the following way was generally followed. Firstly, a picture related to the subject of that week is reflected on the board, and the students are requested to write their thoughts in the blanks of the book. Then, this chapter is discussed among the participants. Afterwards, a short video related to the subject of that week is shown, and the students are asked what the leadership characteristics of the characters in the film might be, and they are asked to give a name to the film. The reason for the name given to the film and the features of the characters in the film are discussed. Then, it is proceeded to the social responsibility chapter and the participants are asked about their experiences and thoughts related to the studies they have conducted during the previous week with regard to that social responsibility project and they are requested to perform the practices related to that responsibility and take notes about what they do in the book until the next week (The social responsibility chapter is conducted depending on the student preferences). Afterwards, a few individuals are requested to play on the board or among themselves in the let's play chapter. The game is related to the subject of that week. After this chapter, the moral of a story is read, and the question below is discussed with different techniques. Following this chapter, it is proceeded to the chapter of "I understand as I read" and it is ensured that everyone reads that chapter. After reading the chapter, the instructor shares the essential points of that chapter, and the chapter is discussed in the class with brainstorming or other techniques. The participants are requested to fill in some questionnaires and solve some puzzles, write short

texts and discuss them in the class in the chapter of beware of practice and let's interpret. Personal assistance is provided by the instructor when necessary. The participants are expected to write what has been learned and their leadership experiences during that week under main titles in the harvest chapter. Moreover, a film about leadership is watched at home every week and the books determined are read. The implementation of the lesson is presented in table 2.

Table 2. The implementation of the leadership education program

| <b>Practices</b>                        | <b>Contents</b>   | <b>Duration</b> |
|---|---|-----------------|
| <b>What did you see in the picture?</b> | A picture related to the subject of that week is reflected. The students are asked what they think.   | 5-10 minutes    |
| <b>Social responsibility</b>            | Social responsibility projects that will provide leadership opportunities in different areas to create awareness are discussed, and the students are expected to perform social responsibilities within a week and take notes of the results. Social responsibility related to the next week is evaluated during the lesson (Optional). | 10 minutes      |
| <b>Let's watch and interpret</b>        | A short film related to the subject is watched. The students are requested to express their thoughts.   | 10 minutes      |
| <b>Let's play</b>                       | A short game related to the subject is played.  | 5-10 minutes    |
| <b>The moral of a story</b>             | The moral of a story is read, and the comments of the students are obtained.  | 5-10 minutes    |
| <b>I understand as I read</b>           | The students read this chapter, and the instructor makes a short explanation in relation to the chapter.  | 10-15 minutes   |
| <b>Beware of practice</b>               | In this chapter, there are parts such as questionnaire, question-answer, free composition, puzzles, etc.  | 10-15 minutes   |
| <b>Let's interpret</b>                  | In this chapter, a short text is provided, and the students are expected to complete this text. Their comments are received.  | 10 minutes      |

|                     |   |  |
|---------------------|---|--|
| <b>Harvest time</b> | In this chapter, the students write what they have learned and their leadership experiences during that week by reflective thinking.  | After lesson practice                      |
| <b>Film</b>         | A film is recommended every week, and it is watched by the participants at their homes. The students are expected to write their opinions related to the leader and leadership in the film with reflective thinking (Optional). | After lesson practice                      |
| <b>Book</b>         | A book about leadership is recommended every week. Reading book is optional.  | This study is conducted out of the lesson. |

### **Instrumentation**

The *youth leadership characteristics scale*, *Emotional self-awareness scale* and *Awareness of leader and leadership scale* were used in the study as data collection tools.

### **Youth Leadership Characteristics Scale**

The scale was prepared by Cansoy and Turan (2016). It consists of 40 items and 7 dimensions in total, and it was prepared in Likert-type with 5-point rating between “(1) Never” and “(5) Always”. The total variance explained by the scale is 51.06% and Confirmatory factor analysis (CFA) was performed to determine whether the seven-dimensional structure was suitable for the data. As a result of the analysis, it was found that the fit indices of 40 items and 7 factors were adequate ( $\chi^2 = 2558.78$ ;  $p < .05$ ;  $df = 719$ ;  $\chi^2/df = 3.55$ ;  $RMSEA = .045$ ;  $CFI = .87$ ;  $GFI = .89$ ;  $AGFI = .88$ ). The factor loadings of the items in the scale ranged from .45 to .73. The dimensions of the scale are *Desire for struggle and goal-setting*, *Group skills*, *Trusting and trustworthiness*, *Decision-making skills*, *Problem-solving skills*, and *Responsibility*. The internal consistency coefficients calculated for reliability vary between .70 and .80. The Cronbach’s Alpha value of the entire scale was found to be .92. Some examples of the items are as follows: “I pursue my ideals.” “I try to create an environment of trust in a group.” “I benefit from my experiences when solving my problems.” “I speak up my ideas.” (Cansoy & Turan, 2016). For this study reliability coefficients calculated for desire

for struggle pretest .74, posttest .53; communication pretest .79, posttest .62; groupskills pretest .92, posttest .75; trust trustworthiness pretest .64, posttest .40; decision-making pretest .80, posttest .69; problem-solving pretest .85, posttest .74; responsibility awareness pretest .58, posttest .45 and all scale pretest .94, posttest .88.

### **Emotional self-awareness scale**

In this study, the Emotional self-awareness dimension of the Bar-On Emotional intelligence questionnaire was used. The scale was adapted to the Turkish culture by Acar (2001). The items of the scale were prepared in 5-point Likert-type between (1) disagree and strongly agree and 87 items. The scale includes 5 dimensions and 15 sub-dimensions. The reliability of the scale was found to be .92. The emotional intelligence measures the subscales of personality, interpersonal skills, compliance, stress coping, and general mood. As a result of the reliability studies, Cronbach's Alpha coefficients were .92 for the total dimensions of the scale; in the personal skill dimension .84; In the interpersonal skills dimension .78; In compatibility dimension .65; in the stress coping dimension .73 and in the general mood state dimension was calculated as .75. The emotional self-awareness dimension emphasizes that the individual is aware and can define his/her own emotions and effects, and can understand his/her feelings (Goleman, 2005). Emotional self-awareness is the subdimension of personal skill dimension and consist of six items. Some examples of the items are as follows: "I face my negative emotions and overview them at a convenient time" and "I can understand what I feel" (Acar, 2001). For this study Cronbach's Alpha coefficient calculated for Emotional awareness pretest .80, post test .55. In this study, exploratory factor analysis was performed on the final test data and the variance explained by 6 items was 32% in a one-dimensional structure.

### **Awareness of leader and leadership**

In the study, 5 items were prepared to indicate at which level leadership is conceptually understood by getting an expert opinion. it was prepared in Likert-type with 5-point rating between "(1) Never" and "(5) Always". Exploratory factor analysis (EFA) was performed to determine dimensions. One dimension and the total variance explained by the scale was 76%. The reliability of these five items was found to be .59. Some items are as follows: "I am aware that leadership is important", "I understand which behaviors will make me stand out as a leader", "I can identify my own leadership style". For this study reliability coefficient calculated for leadership awareness pretest .91, posttest .60.

## Data analysis

SPSS program was used in the study. The retrospective pretest-posttest experimental model was used in the study. After completing the education program in this model, the conditions of the participants at the end of the program and before their participation in the program are interrogated at the same time (Sprangers, & Hoogstraten, 1989; Pratt, McGuigan & Katzev, 2000). In this model, they are requested to first evaluate their conditions at the end of the education program and then their conditions in the past (Rohs, 1999). This model was suggested to control the response bias. The response bias may occur depending on different comprehension levels in the pretest and posttest applications in a self-evaluation study (Rockwell and Kohn, 1989; Rohs, 1999). There are findings in the literature that history-based pretest-posttest application prevents response bias (Rohs, 1999; Lam, Bengo, 2003; Mezoff, 1981). This design is useful when trying to determine how participants feel about the efficiency of a program and skill acquisition (Hill and Betz, 2005). In this study, the second level learning chapter among the reaction, learning, behavior and result stages suggested to evaluate the effectiveness of education programs by Kirkpatrick (1979) was tested. Learning is defined as attitude, skill or information exchange. Improving skills at the end of education is an indicator that learning has occurred (Kirkpatrick and Kirkpatrick, 2006). The data were evaluated using descriptive statistical methods, percentage, and average. Since the number of the subjects was less than 30 in the study, non-parametric tests were used. The Wilcoxon signed-rank test was used as an analysis method in the comparisons between the pretest and posttest scores of both groups.

## Findings

**Table 1. Pretest and posttest averages of the participants**

|                 | Leadership awareness |      | Emotional awareness |      | Desire for Struggle |      | Communication Group Skills |      | Trust Trustworthiness |      | Decision-Making |      | Problem-Solving |      | Responsibility awareness |      |      |      |
|-----------------|----------------------|------|---------------------|------|---------------------|------|----------------------------|------|-----------------------|------|-----------------|------|-----------------|------|--------------------------|------|------|------|
|                 | $\bar{X}$            | S    | $\bar{X}$           | S    | $\bar{X}$           | S    | $\bar{X}$                  | S    | $\bar{X}$             | S    | $\bar{X}$       | S    | $\bar{X}$       | S    | $\bar{X}$                | S    |      |      |
| <b>Pretest</b>  | 2.91                 | 0.93 | 3.15                | 0.72 | 3.40                | 0.63 | 3.31                       | 0.66 | 3.99                  | 0.81 | 4.06            | 0.55 | 3.69            | 0.83 | 3.25                     | 0.7  | 3.68 | 0.6  |
| <b>Posttest</b> | 4.15                 | 0.48 | 3.70                | 0.54 | 4.30                | 0.33 | 3.98                       | 0.45 | 4.51                  | 0.39 | 4.48            | 0.30 | 4.44            | 0.47 | 4.40                     | 0.53 | 4.49 | 0.31 |

According to Table 1, It was observed that the leadership awareness pretest score averages of those constituting the study group were  $\bar{X} = 2.91$ , posttest averages were  $\bar{X} = 4.15$ , emotional awareness averages were  $\bar{X} = 3.15$ , posttest averages were  $\bar{X} = 3.70$ , desire for struggle and goal-setting skills averages were  $\bar{X} = 3.40$ , posttest averages were  $\bar{X} = 4.30$ , communication skills pretest averages were  $\bar{X} = 3.31$  and posttest averages were  $\bar{X} = 3.98$ , group skills pretest averages were  $\bar{X} = 3.99$  and posttest averages were  $\bar{X} = 4.51$ , trust and trustworthiness skills pretest averages were  $\bar{X} = 4.06$  and posttest averages were  $\bar{X} = 4.48$ , decision-making skills pretest averages were  $\bar{X} = 3.69$  and posttest averages were  $\bar{X} = 4.44$ , problem-solving skills

pretest averages were  $\bar{x} = 3.25$  and posttest averages were  $\bar{x} = 4.40$ , responsibility awareness pretest averages were  $\bar{x} = 3.68$  and posttest averages were  $\bar{x} = 4.49$ . It was observed that the participants exhibited behaviors in the pretest at the *sufficient* level. Their behaviors in the posttest were observed to be at the *quite sufficient* level. In other words, the students stated that they felt more sufficient in terms of leadership qualifications after their participation in the program. Considering the score increases in percentage, when the pretest and posttest were compared, the increases were as follows. There was a difference of 42% in leadership awareness, 35% in problem-solving, 26% in the desire for struggle and goal-setting, 20% in decision-making, 20% in communication, 17% in emotional awareness, 13% in group skills and 10% in trusting and trustworthiness. The differentiation levels of the pretest and posttest scores of the students in the education program were examined with the Wilcoxon signed-rank test. The results are presented in the table.

**Table 2.** Wilcoxon signed-ranks test results of the participants in relation to the pretest and posttest scores

|  | <b>Pretest</b> | <b>N</b>        | <b>Mean Rank</b> | <b>Sum of z</b> | <b>p</b>     |
|--|----------------|-----------------|------------------|-----------------|--------------|
| <b>Leadership awareness</b>                        | Negative Ranks | 19 <sup>y</sup> | 10.53            | 200.00          |              |
|  | Positive Ranks | 1 <sup>z</sup>  | 10.00            | 10.00           | -3.554 0.000 |
|  | Ties           | 0 <sup>aa</sup> |                  |                 |              |
| <b>Emotional awareness</b>                         | Negative Ranks | 17 <sup>v</sup> | 9.71             | 165.00          |              |
|  | Positive Ranks | 1 <sup>w</sup>  | 6.00             | 6.00            | -3.491 0.000 |
|  | Ties           | 2 <sup>x</sup>  |                  |                 |              |
| <b>Desire for struggle and goal-setting skills</b> | Negative Ranks | 20 <sup>a</sup> | 10.50            | 210.00          |              |
|  | Positive Ranks | 0 <sup>b</sup>  | .00              | .00             | -3.929 0.000 |
|  | Ties           | 0 <sup>c</sup>  |                  |                 |              |

|                                     |                |                 |       |        |        |       |
|-------------------------------------|----------------|-----------------|-------|--------|--------|-------|
| <b>Communication skills</b>         | Negative Ranks | 18 <sup>d</sup> | 10.69 | 192.50 |        |       |
|                                     | Positive Ranks | 2 <sup>e</sup>  | 8.75  | 17.50  | -3.272 | 0.000 |
|                                     | Ties           | 0 <sup>f</sup>  |       |        |        |       |
| <b>Group skills</b>                 | Negative Ranks | 13 <sup>g</sup> | 7.77  | 101.00 |        |       |
|                                     | Positive Ranks | 1 <sup>h</sup>  | 4.00  | 4.00   | -3.061 | 0.000 |
|                                     | Ties           | 6 <sup>i</sup>  |       |        |        |       |
| <b>Trusting and trustworthiness</b> | Negative Ranks | 17 <sup>j</sup> | 10.24 | 174.00 |        |       |
|                                     | Positive Ranks | 2 <sup>k</sup>  | 8.00  | 16.00  | -3.202 | 0.000 |
|                                     | Ties           | 1 <sup>l</sup>  |       |        |        |       |
| <b>Decision-making skills</b>       | Negative Ranks | 16 <sup>m</sup> | 8.50  | 136.00 |        |       |
|                                     | Positive Ranks | 0 <sup>n</sup>  | .00   | .00    | -3.542 | 0.000 |
|                                     | Ties           | 4 <sup>o</sup>  |       |        |        |       |
| <b>Problem-solving skills</b>       | Negative Ranks | 20 <sup>p</sup> | 10.50 | 210.00 |        |       |
|                                     | Positive Ranks | 0 <sup>q</sup>  | .00   | .00    | -3.936 | 0.000 |
|                                     | Ties           | 0 <sup>r</sup>  |       |        |        |       |
| <b>Responsibility awareness</b>     | Negative Ranks | 19 <sup>s</sup> | 10.00 | 190.00 | -3.835 |       |
|                                     | Positive Ranks | 0 <sup>t</sup>  | .00   | .00    |        | 0.000 |
|                                     | Ties           | 1 <sup>u</sup>  |       |        |        |       |

### **Based on positive rank**

According to Table 2, it is observed that leadership awareness ( $Z = -3.55, p < .01$ ), emotional awareness ( $Z = -3.49, p < .01$ ), desire for struggle and goal-setting skills ( $Z = -3.92, p < .01$ ), communication skills ( $Z = -3.27, p < .01$ ), group skills ( $Z = -3.06, p < .01$ ), awareness of trusting and trustworthiness ( $Z = -3.20, p < .01$ ), decision-making skills ( $Z = -3.54, p < .01$ ), problem-solving skills ( $Z = -3.93, p < .01$ ), responsibility awareness ( $Z = -3.83, p < .01$ ) points are statistically different between the posttest and pretest scores of the participants. According to these findings, it is possible to say that the education program organized improves leadership skills in all dimensions.

### **Discussion and conclusion**

In this study, the effectiveness of the leadership skills education program prepared for final-year students at the faculty of economics was examined with the retrospective pretest-posttest model. It was observed according to the results obtained in the education program that the leadership skills of the students increased.

It was observed that desire for struggle and goal-setting, communication skills, group skills, problem-solving skills, decision-making skills, responsibility awareness, awareness of trusting and trustworthiness, leadership awareness and emotional awareness levels of the students who participated in the education program increased significantly from a moderately sufficient level to a quite sufficient level. There are similar findings in parallel with this result (e.g., Külekçi, 2016; Cress et al., 2001; Zimmerman-Oster and Burkhardt, 1999); Singleton, 2011; Hinds et al., 2008; Laguerre, 2010). According to this result, it is possible to say that, in practice, the activity structure supports the participants in terms of the leadership skills acquisition, thus, the practice is effective. It was determined according to the outputs of 22 different leadership education programs in a study conducted on leadership programs in higher education that service and volunteerism, communication skills, personal and social responsibility, improved self-respect, a problem-solving ability, desire to perform an activity, conflict solving skills developed in the students (Zimmerman-Oster and Burkhardt, 1999). It was observed in a study conducted by Külekçi (2016) with university students that the education program on the basis of leadership skills based on social responsibility improved social responsibility awareness. It was concluded in a meta-analysis study on leadership development programs that the programs had a positive effect of 66% and it was stated that positive outcomes were observed in the cognitive, affective or behavioral areas (Avolio, Reichard, Hannah, Walumbwa and Chan, 2009). It is indicated that while approximately 30%



of change is attributed to some genetic factors in the emergence of leadership roles, 70% is required to be explained by non-genetic factors (Arvey, Zhang, Avolio and Krueger, 2007). Moreover, it is stated that genetics and the environment interact in leadership development (Avolio, Gardner, Walumbwa, Luthans, May, 2004). Nowadays, leadership has begun to be considered as a skill rather than the discussions of “Are leaders born or made?”. Therefore, it is stated that individuals will make progress in leadership skills when given sufficient opportunity and time for development. Thus, programs for improving leadership skills are conducted in different occupational areas (Suliman, Klaber and Warren, 2013). Then, it is possible to say that the outcomes of the leadership education programs applied are supported by many findings in the literature. In other words, it can be interpreted that effective results can be obtained with the programs for strengthening leadership skills.

In this study, the reasons why the students’ awareness in leadership skills has increased may be intense in-class discussions, the fact that the students are forced to make introspection from time to time, intense studies to increase interpersonal skills and that in general, they are asked to structure knowledge themselves. Moreover, using different teaching techniques during the program and practice-oriented implementation may have increased the effectiveness. The students can learn how to cope with difficult situations in leadership development programs depending on the learning styles (Komives, 2011) and leadership development can be provided with coaching skills (Gelinis and James, 1999). In these programs, individuals gain awareness of themselves through introspection and acquire compliance with their basic values, identities, emotions, motivation and goals (Gardner, Avolio, Luthans, May and Walumbwa, 2005). In leadership development, forcing individuals to think and using appropriate tools in the environment support leadership development. Furthermore, the individual finds the opportunity to learn from his/her own experiences with deep thinking, concept formation and generalizations (Owen, Hodgson and Gazzard, 2007). Then, it is possible to say that making introspection in students and interpersonal awareness studies are among important activities in programs for leadership skills development.

There are some limitations in these results. The study group is small and consists of easy-to-reach individuals. Moreover, the researcher takes part as an instructor. Thus, the results of this study can be generalized for the group studied. On the other hand, the students may have thought that such a program will ensure some positive changes in themselves.

According to the results of this study, it is suggested to conduct the programs for providing leadership skills at universities. One of the most important duties of higher education is to train the youth with leadership skills so that they can adapt to the life after graduation (Astin and Astin, 2000). On the other hand, these programs can be addressed in the context of

leadership qualifications required to be improved by students by being structured in a better way. It is observed during this study that the programs for providing leadership skills at the higher education level are not addressed at the sufficient level. The most obvious evidence for this is that there is a limited number of studies conducted in this area at the higher education level (Külekçi, 2016). Moreover, the fact that 65% of the programs for providing leadership skills in the literature are discussed at the higher education level indicates that there is a need for new studies in the national literature (Komives, 2011). In this regard, it is recommended to policy-makers to put the leadership education programs on the agenda as theoretical or applied courses in higher education programs.

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