# The Effect of the Career Psychoeducation Program on the Career Decision Self-Efficacy and Educational Outcome Expectations of Eleventh-Grade Students*

**Gürcan Şeker** [i]
Niğde Ömer Halisdemir University

**Burhan Çapri** [ii]
Mersin University

**Abstract**

This study aimed to examine the effectiveness of a career psychoeducation program developed based on the social cognitive career theory in career decision self-efficacy and educational outcome expectations of eleventh grade students. The study used a quasi-experimental model with a pretest-posttest control group design. The experimental process of the study was designed according to a 2x3 mixed (split-plot) design with a control group including pretest, posttest, and follow-up measurements. This process was carried out with 36 eleventh greleventh grade students, including 18 in experimental and 18 in control groups. The study data were collected using the Career Decision Self-Efficacy Scale–Short Form and the Educational Outcome Expectations Scale. During the experimental process, an eleven-week career psychoeducation program was carried out in the experimental group, and no intervention was conducted in the control group. As a result of the study, it was found that there was a significant difference in favor of the experimental group students in terms of the mean scores obtained from the career decision self-efficacy and educational outcome expectations and that this difference between the mean scores was also maintained in the follow-up measurements. The findings of the effectiveness of the career psychoeducation program on the career decision self-efficacy and educational outcome expectations of eleventh grade students were discussed in the light of the related literature.

**Keywords**: Social Cognitive Career Theory (SCCT), Career Decision Self-Efficacy, Educational Outcome Expectation, Career Psychoeducation Program

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[i] **Gürcan Şeker,** Dr., Faculty of Education, Department of Educational Sciences, Niğde Ömer Halisdemir University, ORCID: 0000-0002-6633-7859

**Correspondence:** gurcanseker@ohu.edu.tr

[ii] **Burhan Çapri,** Prof. Dr., Faculty of Education, Department of Educational Sciences, Mersin University, ORCID: 0000-0002-6812-4785

## INTRODUCTION

Career development is a concept introduced to keep up with the changing nature of career and business behaviors that cover a significant part of the life span. This concept encompasses interests, skills, values, information about the business world, and other formal or informal experiences in the lifeline starting from childhood and continuing until retirement. Although career development is often used independently of each other, it is considered a concept that comprises career decisions and choices (Lent & Brown, 2013).

One of the basic components of the career development and decision process is career decision self-efficacy, which is handled within the framework of social cognitive career theory (Hackett & Betz, 1981). Social cognitive career theory was developed by Lent, Brown, and Hackett (1994) based on the general social cognitive theory of Bandura (1986). Social cognitive career theory focuses on three cognitive variables, which it suggests are important in career development, and the interaction between these variables. These are self-efficacy (belief), outcome expectation, and personal goals (Lent, 2013).

Social cognitive career theory identifies the role of perceived self-efficacy in career development and career decision-making and focuses on research on this topic (Hackett & Betz, 1995). The concept of self-efficacy was first used in the field of career development with a study conducted by Hackett and Betz (1981). The concept of career decision self-efficacy has been widely used in the literature since the development of the career decision self-efficacy scale by Taylor and Betz (1983).

Career decision self-efficiency is expressed as the belief or expectations of the individual about their own abilities in making career decisions (Taylor & Betz, 1983). High career decision-making self-efficacy of individuals shows that they are more confident in their ability to better evaluate their skills, interests, and potential, to gain accurate information about the professions and qualifications required by the professions, and to set concrete and attainable goals and that it boosts the individual's motivation. On the contrary, low self-efficacy causes either postponement of career decision-making or difficulties in the career decision-making process (Lent et al., 1994).

Low career decision self-efficacy may negatively affect search for career and decision-making behaviors, and it is assumed that this situation may emerge as an important predictor of career indecision. Therefore, it is stated that the process of making an effective career decision should include not only the development of skills but also the confidence in these skills. This situation motivates studies related to self-efficacy in the career decision-making process (Taylor & Betz, 1983).

The literature on career decision self-efficacy has focused on scale adaptation studies (Chaney et al., 2007; Gaudron, 2011; Hampton, 2006; Işık, 2010; Miguel et al., 2013; Miller et l., 2009; Presti et al., 2013). On the other hand, career indecision (Büyükgöze-Kavas, 2011; Creed et al., 2006; Lam & Santos, 2018; Taylor & Betz, 1983; Xu & Tracey, 2014) seems to be one of the important variables studied in relation to career decision self-efficacy. Besides, concepts, such as selection of a career (Gianakos, 1999; Pulliam et al., 2017; Sisco, 2014), personality traits (Hou et al., 2014; Jin et al., 2009; Page et al., 2008; Penn & Lent, 2019; Wang et al., 2006), and perceived support for a career (Alliman-Brisset et al., 2004; Garcia et al., 2012; Gushue & Whitson, 2006; Patel et al., 2006), have been among variables whose relationship with career decision self-efficacy has been examined.

One of the cognitive variables dealt with in the career development process in social cognitive career theory is the concept of "outcome expectation". Outcome expectation refers to personal beliefs about the outcome of performing a particular behavior. Self-efficacy is related to a person's perception of what they can do, while outcome expectation is related to expectations for the consequences of a behavior to be exhibited. Although self-efficacy and outcome expectation are generally thought to be low or high in parallel with each other, there may be situations where one is higher or lower than the other (Lent, 2013). Bandura states that self-efficacy and outcome expectations should be handled

separately from each other. Outcome expectation is a person's prediction of the outcome of the behavior they put into practice. Self-efficacy, on the other hand, is the belief that the person can successfully perform the necessary behaviors to achieve the outcome. There are different outcome expectations including physical, social, and self-evaluation specific to the targeted behavioral areas (Bandura, 1986).

The concept of outcome expectation is studied as one of the important components of career selection and performance goals within the framework of social cognitive career theory. In this context, outcome expectation is defined as the imagined outcome of performing certain career-related behaviors (Lent et al., 1994). Betz and Voyten (1997) defined outcome expectations based on social cognitive career theory as an individual's beliefs about the results of certain educational or career decision-making behaviors by evaluating them under the heading of career outcome expectations. When the outcome expectations specific to the targeted behavioral areas are evaluated, one of the outcome expectation areas that is not taken into account is the educational outcome expectations. Educational outcome expectations express the expectations of the individual to achieve certain outcomes as a result of completing a certain educational level (Springer et al., 2001). Outcome expectations have also been examined in the field of education in a manner specific to the behavioral areas. These areas may include areas of outcome expectations, such as mathematics or science, as well as academic subject areas specific to the targeted behavioral area. However, it is noteworthy that in studies on outcome expectations in the field of education, areas, such as career choice and career decision, are ignored (Tilley, 2005).

Social cognitive career theory suggests that the goals people set for themselves are significantly influenced by their self-efficacy and outcome expectations, and that self-efficacy and outcome expectations have an important contribution to the development of career interests (Lent & Brown, 1996). In the literature, there are many correlational studies that discuss self-efficacy and outcome expectations variables together (Adachi, 2014; Ali et al., 2005; Bağlama & Uzunboylu, 2017; Conkel-Ziebell, 2010; Conklin et al., 2013; Domene, 2012; Feldt & Woelfel, 2009; Gushue, 2006; Gushue & Whitson, 2006; Metheny & Mcwhirter, 2013). On the other hand, there are a limited number of experimental studies (Bozgeyikli, 2005; Chartrand & Rose, 1996; Eşkisu et al., 2020; Işık, 2010; Mcwhirter et al., 2000) which address these two concepts together.

In the literature, it has been seen that experimental studies examining the effectiveness of career intervention programs on variables (career decision self-efficacy, outcome expectations) considered in the context of social cognitive career theory have mainly used university samples (Baldwin, 1998; Cox, 1996; Foltz & Lusso, 1998; Fouad et al., 2009; Gallo, 2017; Grier-Reed & Skaar, 2010; Guillen, 2007; Joslyn, 2015; Lam & Santos, 2018; Lip, 2014; Oreshnick, 1991; Reese & Miller, 2006; Sun, 2019). Considering the limited number of studies with high school students compared to studies with university samples, the career intervention programs developed within the scope of these studies are effective in the positive development of career decision self-efficacy and outcome expectations. For example, in their study conducted with Italian adolescents, Chiesa et al. (2016) aimed to improve the career decision-making process by increasing the career decision self-efficacy of the participants with the career group intervention program prepared for adolescents in the transition to university or business life. The results of the study indicated that the career group intervention program was effective in increasing career decision-making self-efficacy. The findings of the study conducted by Mcwhirter et al. (2000), on the other hand, showed that a nine-week career education program had an effect on the career decision self-efficacy of high school students, as well as the self-efficacy and professional outcome expectations for vocational skills. In addition to various studies in the literature showing that career intervention programs have an impact on the career decision self-efficacy (Falco & Summers, 2019; Medina, 2010; Miles & Naidoo, 2017) and outcome expectations of high school students (Garcia, 2018), there are also studies (Dungan, 1992; Kraus, 1997) showing no significant difference between the mean scores of the experimental and control groups in terms of the effectiveness of career intervention programs.

The number of experimental studies involving career intervention programs developed within the framework of social cognitive career theory in Turkey is quite limited, and these studies have generally been conducted on university students (Eşkisu et al., 2020; Işık, 2010; Kahraman, 2020; Öztürk, 2020; Uzun, 2019). On the other hand, it is seen that there are also experimental studies, which consisted of samples made up of middle school students and which utilized vocational group guidance programs (Bozgeyikli, 2005; Seçer et al., 2013).

The effectiveness of career intervention programs prepared for career decision self-efficacy and outcome expectations within the framework of social cognitive career theory and the lack of career intervention programs developed in the context of social cognitive career theory for high school students in Turkey should be evaluated as a situation that needs considering. Considering that a career psychoeducation program that can contribute to the fulfillment of career development tasks of high school students can be useful, a career psychoeducation program based on social cognitive career theory was prepared for 11th-grade students within the scope of this study. The main purpose of this study is to test the effectiveness of the career psychoeducation program, which was prepared to increase the career decision self-efficacy and educational outcome expectations of 11th-grade students, who are in the process of making career decisions. Based on this general purpose, the following hypotheses were tested:

• There will be a difference between the mean career decision self-efficacy posttest scores of experimental group students participating in the career psychoeducation program and the control group students not included in the program in favor of the experimental group. This difference in mean scores will persist in the follow-up measurements to be made after twelve weeks.

• There will be a difference between the mean educational outcome expectations posttest scores of experimental group students participating in the career psychoeducation program and the control group students not included in the program in favor of the experimental group. This difference in mean scores will persist in the follow-up measurements to be made after twelve weeks.

## METHOD

### Research Model

This study used a quasi-experimental model with a pretest-posttest control group design to investigate the effectiveness of the career psychoeducation program developed based on social cognitive career theory on the career decision self-efficacy and educational outcome expectation levels of 11th-grade students. The quasi-experimental model is an experimental model, where the participants are not determined randomly and full control of potential confounding (secondary) variables cannot be achieved (Johnson and Christensen, 2017). The experimental process of the study was designed according to a 2x3 mixed (split-plot) design with a control group including pretest, posttest, and follow-up measurements. One of the variables whose effect on the dependent variable is examined in mixed designs is defined as the different experimental procedure conditions carried out on the groups formed (experiment and control), and the other is the repeated measurements of the subjects at different times (pretest, posttest, and followup) (Büyüköztürk, 2014).

### Study group

The study group was selected among the 11th-grade students at Atatürk Anatolian High School located in the central county of Niğde province. Accordingly, the career decision self-efficacy and educational outcome expectation scales were administered to 233 11th-grade students, and as a result of the analysis of the data obtained, 39 students whose scores were below a standard deviation were included in the experimental process. The students were informed about the purpose and scope of the study and told that participation in the study was voluntary. Three of the students stated that they were not willing to participate in the study, and the remaining 36 students were divided into two and

assigned to the experimental and control groups randomly. The experimental group consisted of 13 female and 5 male students, and there were 12 female and 6 male in the control group.

**Data collection tools**

***The Career Decision Self-efficacy Scale-Short Form (CDSES-SF)***

The Career Decision Self-efficacy Scale-Short Form (CDSES-SF), which was developed by Betz, Klein, and Taylor (1996) and adapted to Turkish by Işık (2010), is used to determine the perceived self-efficacy in university students for the tasks they need to fulfill during their career decision-making process. The scale consists of five sub-dimensions, namely, accurate self-appraisal, gathering occupational information, goal selection, planning, and problem solving, and a total of 25 items. While responding to the items on the scale, the participants use a five-point Likert-type rating ranging between "no confidence (1)" and "complete confidence (5)" to indicate how confident they are in performing the tasks stated. A total score can be obtained from the scale. High scores indicate a high level of career decision-making self-efficacy. In the process of adapting the scale to the sample of Turkish university students, the internal consistency coefficient was calculated with Cronbach's alpha calculation method, and the stability coefficient was calculated with the test-retest method. Cronbach's alpha coefficient was found to be .88, and the stability coefficient was found to be .81.

As the study was conducted with 11$^{th}$-grade students, the psychometric properties of the scale were examined in a sample of high school students within the scope of the doctoral thesis study conducted by Şeker (2020). To examine the psychometric properties of the scale, first, necessary permission for using the scale was obtained for this study, and then data were collected on a voluntary basis from 450 9-12$^{th}$-grade high school students in schools located in the central county of Niğde. The findings obtained as a result of the confirmatory factor analysis revealed that the general model was explained by the five-factor structure as shown by the coefficients obtained ($X^2$*=559.05, Sd=265,* $X^2$*/Sd=2.07, CFI=.91, TLI=.90, RMSEA (%90 GA)= .049 (.043-.054), SRMR= .05*). For the reliability analysis of the scale in the high school sample, the internal consistency coefficient was calculated. As a result of the analysis, it was found that Cronbach's alpha (α) internal consistency coefficient was .92. Findings regarding the construct validity and reliability analysis of the short form of the career decision self-efficacy scale in the Turkish high school students sample revealed that the 25-item five-factor structure fitted the high school sample.

***The Educational Outcome Expectations Scale***

The Educational Outcome Expectation Scale reveals the expectations of high school students regarding the outcome of the education they have been receiving for their career development and occupational/academic goals (Şeker, 2020). A five-point Likert-type scaling ranging from "completely disagree" to "completely agree" was preferred for the educational outcome expectations scale. Explanatory (EFA) and Confirmatory Factor Analysis (CFA) techniques were employed to determine the construct validity of the scale. The data for both analyses were collected in two stages from 9$^{th}$-12$^{th}$-grade students in secondary education institutions located in the central county of Niğde province. Data were collected from 545 students for EFA in the first stage and 324 students for CFA in the second stage. As a result of the analysis, a scale consisting of two sub-dimensions and 11 items was obtained. The sub-dimensions were named "career-oriented educational outcome expectations" and "academic-oriented educational outcome expectations". The reliability of the measurements obtained from the educational outcome expectation scale was calculated by the internal consistency reliability coefficient (Cronbach's alpha) and test-retest reliability methods. The internal consistency reliability coefficient was found to be .81 for the academic-oriented educational outcome expectation sub-dimension of the scale, and .85 for the career-oriented educational outcome expectation sub-dimension. The internal consistency reliability coefficient for the overall scale score was calculated as .87. The coefficients for the test-retest reliability analysis were .65 for the academic-oriented educational outcome expectations sub-dimension, .78 for the career-oriented educational outcome expectations sub-dimension, and .79 for the overall scale score.

### The Career Psychoeducation Program

During the preparation stage of the career psychoeducation program developed based on social cognitive career theory, first, a literature review was conducted, and studies conducted on both high school students (Alvarez, 2009; Chiesa, Massei, and Guglielmi, 2016; Garcia, 2018; Kraus, 1997; Mcwhirter et al, 2000; Medina, 2010; Miles and Nidoo, 2017) and university students (Baldwin, 1998; Cox, 1996; Oreshnick, 1991; Folt and Luzzo, 1998; Fouad, Cotter, and Kantamneni, 2009; Gallo, 2017; Guillen, 2007; Işık, 2010; Joslyn, 2015; Lam and Santos, 2018; Reese and Miller, 2006; Sun, 2019) were reviewed. Later, the school psychological counselors working in secondary education institutions were consulted on what kind of activities were needed to improve the career and occupational decision-making self-efficacy of students.

The career psychoeducation program was structured under the titles of domains of self-efficacy, themes, and session goals. While creating the domains of self-efficacy and session themes of the program, the domains of self-efficacy that make up the subscales of the career decision self-efficacy scale developed by Betz et al. (1996) and used in this study were taken as a basis. These domains of self-efficacy were accurate self-appraisal, gathering occupational information, goal selection, planning, and problem solving, which were also referred to by Crites (1973) as necessary for career development. The informative sources of self-efficacy expectation were utilized in structuring the sessions and activities. In the first session of the psychoeducation program, students were informed about the purpose and content of the program, group rules were determined, concepts, such as career, job, and profession were discussed. The second and third sessions, which addressed the domain of accurate self-appraisal self-efficacy, included activities prepared by using tests, inventories, and forms to raise awareness of students about their interests, abilities, professional values, and professional personality types. The fourth and fifth sessions, which handled the domain of gathering occupational information self-efficacy, included activities on the system of transition to higher education, higher education programs, and familiarity with and searching for jobs. The sixth and seventh sessions, which addressed the domain of goal selection, involved determining the self-efficacy for academic and professional goal selection, the importance of goal setting and the advantages it provides, and making temporary job choices. The eighth and ninth sessions were about the domain of planning self-efficacy and included activities related to the importance of making educational and occupational plans, evaluation of the future of the jobs of interest, designing a career journey, giving informing about and planning for job opportunities outside university education. The tenth session, which targeted the domain of problem-solving self-efficacy, included activities in which students could express methods for gaining awareness about problems that may be encountered in the career or occupational decision-making process and coping with these problems. In the last session, the career psychoeducation program was evaluated, and then the posttest was administered. There was no pilot study of the psychoeducation program.

### Data Analysis

Explanatory and confirmatory factor analysis techniques were used to determine the factor structures of the scale in the scale adaptation and development processes conducted within the scope of the study. To test the effectiveness of the experimental process, the two-factor ANOVA in repeated measurements technique was employed. The point to be considered in the interpretation of the two-factor ANOVA analysis in repeated measurements is that the group*measurement joint effect is significant. The significance of the joint effect shows that the variance in the mean scores of the subjects is due to the experimental process (Büyüköztürk, 2014). The effect sizes were also calculated together with the two-factor ANOVA analysis in repeated measurements, and in this calculation, eta squared ($\eta 2$) was employed, and $\eta 2$ values were also included in the analysis table. SPSS 24.0 Statistics Software package was used for the analysis of the measurements of experimental and control groups and the explanatory factor analysis during the scale development process, while the AMOS Software package was used for the confirmatory factor analysis.

## FINDINGS

In this section, the findings obtained in line with the hypotheses of the research are presented. In the first stage, findings related to career decision self-efficacy are presented, while in the next stage, findings regarding educational outcome expectations are included.

Table 1 shows the mean and standard deviation values of the pretest, posttest, and follow-up measurements regarding the career decision self-efficacy of the participants in the experimental and control groups.

**Table 1. Statistical results for the overall CDSES-SF scores**

| **CDSES-SF** Overall score | | Pretest | | Posttest | | Follow-up | |
|---|---|---|---|---|---|---|---|
| **Group** | N | | Ss | | Ss | | Ss |
| Experimental | 18 | 64.39 | 10.27 | 92.05 | 15.12 | 87.33 | 14.66 |
| Control | 18 | 64.55 | 10.07 | 65.78 | 18.07 | 68.17 | 13.43 |

The two-factor ANOVA analysis in repeated measurements was used to test the significance of the difference between the experimental and control groups in terms of mean career decision self-efficacy scores (pre-post-follow-up). The data obtained are given in Table 2.

**Table 2. ANOVA results for the pretest, posttest, and follow-up measurements of CDSES-SF**

| **Source of the variance** | **Sum of squares** | **Sd** | **Mean squares** | **F** | **p** | **$\eta^2$** |
|---|---|---|---|---|---|---|
| Inter-group | 18319.435 | 35 | | | | |
| Group (D/K) | 6150.231 | 1 | 6150.231 | 17.18 | .000* | .34 |
| Error | 12169.204 | 34 | 357.918 | | | |
| Intra-group | 15498.667 | 72 | | | | |
| Measurement (Pretest, posttest, follow-up) | 4635.630 | 2 | 2317.815 | 21.04 | .000* | .38 |
| **Group*Measurement** | **3370.963** | **2** | **1685.481** | **15.30** | **.000*** | **.31** |
| Error | 7492.074 | 68 | 110.178 | | | |

*p<.05

The analysis results of the repeated measurements of career decision self-efficacy scores indicated that there was a significant difference between the mean scores of the experimental and control groups when only the groups were taken into account, regardless of the measurements made (F1-34 = 17.18, p <.05). When only the measurements were taken into account for the total scale score, regardless of the group variable, it was found that there was a significant difference between the mean scores obtained from the pretest, posttest, and follow-up measurement of the experimental and control groups (F2-68 = 21.04, p <.05). The most important finding regarding the analysis in Table 2 was that the joint effect of being in different process groups and measurement factors (pre-post-follow-up) on career decision self-efficacy scores was significant (F2-68 = 15.30, p <.05). Finally, the eta squared (η2) value, which is used to determine to what extent the variance seen in the total scale scores is explained by the experimental procedure, was examined. Accordingly, the findings obtained revealed that 31% of the variance observed in the total scale scores during the measurements could be explained by the experimental process (η2 = .31). These results revealed that the variance observed in the career decision self-efficacy levels of the students in the experimental group included in the psychoeducation program showed a significant difference compared to the students in the control group who were not included in the program, and this difference was maintained in the follow-up study. The variance graph of the pretest, posttest, and follow-up measurements regarding the total scale score is given in Figure 1.

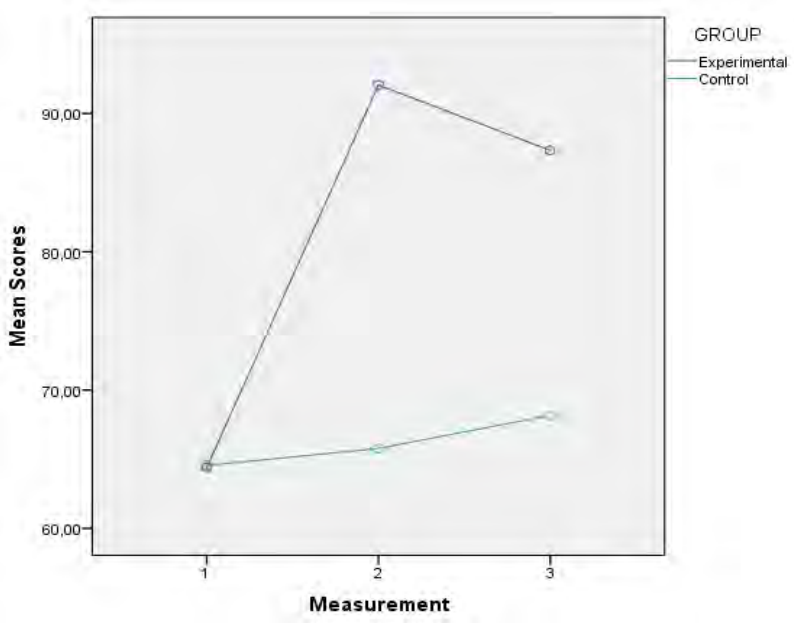


**Figure 1. Graph for the measurements of the career decision self-efficacy scores**

In the second stage, the findings related to the educational outcome expectations scores were discussed. The mean and standard deviation values of the pretest, posttest, and follow-up measurements regarding the educational outcome expectations of the participants in the experimental and control groups are given in Table 3.

**Table 3. Statistical results of the total scores obtained from the educational outcome expectations scale**

| **Total scores from the EOES** | | Pretest | | Posttest | | Follow-up | |
|---|---|---|---|---|---|---|---|
| **Group** | **N** | | **Ss** | | **Ss** | | **Ss** |
| Experimental | 18 | 29.05 | 6.51 | 40.67 | 8.13 | 39 | 5.80 |
| Control | 18 | 29.61 | 6.87 | 29.94 | 8.08 | 30.67 | 7.33 |

The results of the two-factor ANOVA analysis in repeated measurements regarding the significance of the difference between the mean educational outcome expectations scale scores of the experimental and control groups and the mean scores obtained from the measurements (pretest-posttest-follow-up) are given in Table 4.

**Table 4. ANOVA results for pretest, posttest, and follow-up measurements of the educational outcome expectation scale**

| **Source of the variance** | **Sum of squares** | **Sd** | **Mean squares** | **F** | **p** | **$\eta^2$** |
|---|---|---|---|---|---|---|
| Inter-group | 4491.657 | 35 | | | | |
| Group (D/K) | 1026.750 | 1 | 1026.750 | 10.07 | .003* | .23 |
| Error | 3464.907 | 34 | 101.909 | | | |
| Intra-group | 3212.666 | 72 | | | | |
| Measurement (Pretest, posttest, follow-up) | 793.685 | 2 | 396.843 | 15.13 | .000* | .31 |
| **Group*Measurement** | **635.722** | **2** | **317.861** | **12.12** | **.000*** | **.26** |
| Error | 1783.259 | 68 | 26.224 | | | |

*p<.05

The results of the analysis for repeated measures of educational outcome expectations scores indicated that there was a significant difference between the mean scores of the experimental and control groups when only the groups were considered, regardless of the measurements (F1-34 = 10.07,

p <.05). It was also found that there was a significant difference between the mean scores obtained from the pretest, posttest, and follow-up measurements of the total score of the educational outcome expectations of the experimental and control groups when only the measurements were taken into account, regardless of the group variable (F2-68 = 15.13, p <.05). According to another important finding regarding the analysis result, which should be considered in line with the hypotheses put forward, the joint effect of being in different treatment groups and measurement factors (pre-post-follow-up) on educational outcome expectation total scores was significant (F2-68 = 12.12, p <.05). In the last stage, the eta squared (η2) value, which is used to determine to what extent the educational outcome expectations of the experimental procedure implemented explained the variance observed in the total scale scores, was examined. The data obtained showed that 26% of the variance in the educational outcome expectation scores along the measurements could be explained by the experimental procedure (η2 = .26). These results revealed that there was a significant difference between the educational outcome expectation levels of the students in the experimental group participating in the psychoeducation program and those in the control group who were not included in the program in favor of the experimental group and that this difference continued in the follow-up study. The variance graph of the measurements is given in Figure 2.

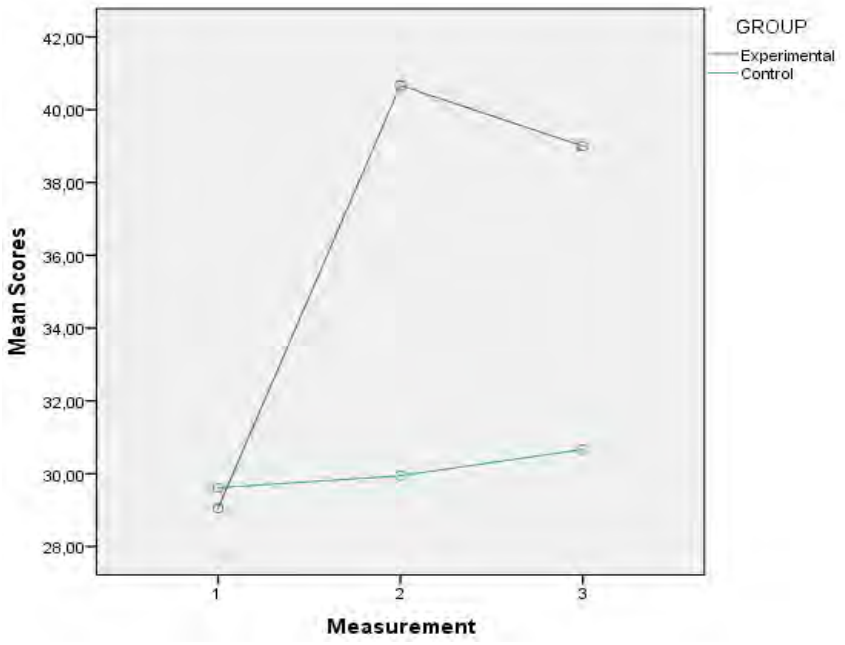


**Figure 2. Graph for the measurements of the educational outcome expectations scores**

## DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

Two hypotheses were put forward within the scope of the study. The first of these hypotheses was that there would be a difference between the mean career decision self-efficacy posttest scores of experimental group students participating in the career psychoeducation program and the control group students not included in the program in favor of the experimental group and that this difference in mean scores would persist in the follow-up measurements to be made after twelve weeks. The findings obtained from the study indicated that there was a significant increase in the mean posttest scores of the experimental group students obtained from the career decision self-efficacy scale compared to those of the control group students. It was observed that this difference between the mean scores of the experimental and control group students continued in the follow-up measurements.

When the related literature was examined, it was found that there were experimental studies based on social cognitive career theory that supported the findings of the present study. In a study conducted with high school students, Mcwhirter et al. (2000) obtained findings similar to those of this study. In this study, it was concluded that the career education program was effective in increasing the

career decision self-efficacy of students. In another study conducted with high school students, Alvarez (2009) revealed that the career education intervention program they developed was effective in the planning sub-dimension of career decision self-efficacy. In their study with high school students, Medina (2010) concluded that career group intervention was effective in increasing career decision-making self-efficacy. In the study conducted by Chiesa et al. (2016), it was found that career group intervention was effective in increasing career decision self-efficacy. Another study that revealed career group intervention had an impact on career decision self-efficacy was the study conducted by Falco and Summers (2019) in a high school sample.

In the literature, results obtained from experimental studies on samples consisting of university (Baldwin, 1998; Foltz and Luzzo, 1998; Fouad et al., 2009; Gallo, 2017; Işık, 2010; Lam and Santos, 2018; Reese and Miller, 2006) and secondary school students (Bozgeyikli, 2005; McComb-Beverage, 2012; Seçer, Gülbahçe, and Ateş, 2013), apart from the high school samples, were similar to the results obtained from the present study. In these studies, too, it was found that career group intervention affected career decision self-efficacy.

Contrary to the findings obtained from this study, there are also studies in the literature that concluded career intervention programs conducted with both high school students (Dungan, 1992; Kraus and Hughey, 1999) and university students (Joslyn, 2015) were not effective in increasing career decision self-efficacy.

The second hypothesis of the study was that there would be a difference between the mean educational outcome expectations posttest scores of experimental group students participating in the career psychoeducation program and the control group students not included in the program in favor of the experimental group and that his difference in mean scores would persist in the follow-up measurements to be made after twelve weeks. Findings regarding educational outcome expectation also revealed that there was a significant difference in favor of the experimental group regarding the mean posttest scores. In addition, it was found that this difference between the mean scores of the experimental and control groups continued in the follow-up measurements.

The findings of the experimental study conducted by Mcwhirter et al. (2000) regarding outcome expectations supported the findings of the present study. In the study conducted by these researchers, it was revealed that the nine-week career training program was effective in increasing the outcome expectation scores regarding the career process. In another study, which supported the findings of the present study, Garcia (2018) examined the effectiveness of the career intervention program, which they called the Career Information System (CIS) Program, and pointed out the occupational outcome expectations as one of the variables that were used to test the effect of the program. The results of the study showed that the career information system program was effective in increasing the occupational outcome expectations. The results obtained in studies conducted by Işık (2010) and Eşkisu, Haspolat, and Ağırkan (2020) in university samples also supported the findings regarding outcome expectations obtained in the present study. The results of the study conducted by Guillen (2007) indicated that, contrary to the findings obtained in this study, there was no significant difference between the experimental and control group scores in terms of the effectiveness of the outcome expectation intervention.

When the results of this study were evaluated in general, it was revealed that the career psychoeducation program developed based on social cognitive career theory had an effect on career decision self-efficacy and educational outcome expectations of $11^{th}$-grade students. The study has some limitations besides its contributions to the related literature and the field. One of these limitations was that the career psychoeducation program developed was conducted only with $11^{th}$-grade students. Experts and researchers working in the field can be recommended to test the career psychoeducation program developed within the scope of this study on high school students at different grade levels.

Considering that studies conducted in high school samples based on social cognitive career theory in Turkey are quite limited, we recommend researchers should conduct experimental studies to

test career intervention programs to be developed for different grade levels. Besides, considering the importance of self-efficacy and outcome expectations in the career development process, it is thought that experimental or mixed-method studies on this topic will provide significant contributions to the field and the literature.

Another limitation of the study was that the follow-up measurements were made only twelve weeks after the administration of the posttest. Longer-term effects of the program can be revealed by making more follow-up measurements in studies to be conducted with similar or different samples. However, the effects of the career psychoeducation program, which was designed based on social cognitive career theory within the scope of the study, on different class levels or different variables (career indecision, occupational maturity, etc.) can be tested by researchers in future studies.

The career psychoeducation program designed within the scope of the study is considered to be functional in terms of including subjects and interactive applications, which students may be interested in, and a study booklet on the implementation process. Especially school psychological counselors working in secondary education institutions can benefit from this program to increase the self-efficacy of students in the career decision-making process, and they can practice with student groups of 15-20 by identifying students who have problems in the career decision-making process.

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