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Investigating the change in career decision making self-efficacy levels of university students

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Abstract

The aim of this study is to examine the change in career decision making self-efficacy levels of university students. 29 students from different faculties of a public university in Ankara who chose the "Career Planning in Transition to Business Life" course as a non-departmental selective course constitute the sample of the study. Activities included in the career decision making training program developed by Işık (2010) were used during practice of the course. Career Decision Making Self-Efficacy Scale developed by Ulaş & Yıldırım (2016) was used as the data collection tool in the pre-test and the post-test, which was performed at the end of the ten week-practice. The data obtained were evaluated in SPSS 18.0 (Statistics Package for Socials Sciences) program, and descriptive statistics, independent groups t-test, dependent groups t test, and bivariate correlation analysis were performed in the analyses of the data. According to the results of the analyses, career decision making self-efficacy scores of students differed significantly in pre-test and post-test measurements, the difference between scores did not vary by gender, and there is no significant correlation between the students' course grades and pre-test scores, post-test scores or the difference between them.

Keywords: Social cognitive career theory, career decision making self-efficacy, university students

1. Introduction

1.1. Introduce the problem

In Turkey, students take the Higher Education Institutions Examination (YKS) at the end of high school and are placed in university programs according to the scores they get from it. Students try to find out convenient career alternatives for themselves and start a job during their university years. The unemployment rate among young people between the ages of 15-24 has increased 3 points and reached the level of 25.3% (Turkish Statistical Institute [TUIK], 2019). As a natural result of the increasing unemployment problem, students are scared of not being able to find a job when they graduate from university. Therefore, determining university students' states of making career decisions is considered necessary as this is an important period for them to make decisions and plans about their career. However, the facts that students have unrealistic expectations from business life

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and that school life and business life are very different from each other make this process more difficult (Wendlandt & Rochlen, 2008). A person's career involves her/his experience, attitude and behaviors related to work throughout her/his business life (Griffin, 1993). In the literature, it is stated that university students should establish a good relationship between their personal characteristics and the jobs they intend to have (Zunker & Osborn, 2002), be knowledgeable about the places to apply in order to find a job, and be able to write a good resume and have a successful job interview (Sharf, 2002). In this respect, Social Cognitive Career Theory (SCCT), which emphasizes the importance of these concepts in career development, constitutes the conceptual framework of the current research study. Social Cognitive Career Theory is based on the social cognitive theory of Bandura and was developed by Lent, Brown and Hacket (1994) (Ertem, Demir, & Gökalp, 2017). Self-efficacy beliefs, outcome expectations and personal goals are the basics of SCCT (Brown & Hackett, 2002). According to Lent, Hackett and Brown (1999), the first stage in the transition from school life to business life is "to create realistic competence and outcome expectations" (Ulaş, 2016). In this process, a variable that is effective for students to make appropriate decisions about their career is career decision making self-efficacy (Betz & Voyten, 1997, Taylor & Betz, 1983, Ye, 2014). Taylor and Betz (1983) define the concept of career decision making self-efficacy as individuals' beliefs in their own abilities to successfully complete the tasks required to make career decisions. Therefore, we can claim that career decision making self-efficacy is primarily important in transition to business life.

Literature suggest that compared to the undecided ones, university students who have made a career decision have higher career decision making self-efficacy expectations, lower anxiety levels (Gloria & Hird, 1999) and higher self-confidence (Taylor and Betz, 1983). Low career decision-making self-efficacy leads to postponing making career decisions and performance anxiety (Lent, Brown & Hackett, 2002). In study conducted by Işık (2007), the majority of university students stated that they needed professional help in getting to know their interests, abilities and values, preparing for an interview, and writing a resume, and that they would have liked to take an elective course that could help them in these areas.

According to SCCT, four sources shape self-efficacy beliefs: mastery experiences, vicarious experiences, verbal persuasion, and physiological and affective states. (Bandura, 1986, cited in Niles & Bowlsbey, 2013, p.97). It is suggested that individuals who have not got to know themselves adequately during their undergraduate education and who have not made plans for after graduation may need help (Gati, Krausz, & Osipow, 1996). It is obvious in the literature that students who have taken part in career interventions are more likely to apply what they know when engaged in planning and decision-making for their career in the future (Hansen & Pedersen, 2012) and they know their personal interests, values, personalities and skills (Fouad, Cotter, & Kantamneni, 2009). Since students are in the stage of self-discovery and decision making during their university

years, career development courses they take during this time has a potential to affect a critical development stage in their lives (Hinkelman & Luzzo, 2007). As a result of the study carried out by Reese and Miller (2006), it was revealed that career decision making self-efficacy expectations of the students who took career development courses significantly increased compared to those who did not.

In the literature, there are a limited number of studies examining university students' career decision making self-efficacy levels. In this respect, career development courses that enable students to obtain real information about business life are essential during their university years. Considering the importance of these years in terms of career planning, it is thought that the current study might be effective in meeting the career-related needs of university students in our country.

The aim of this study is to examine the change in university students' career decision making self-efficacy levels. For this purpose, answers to the following questions were sought in the study:

1. What is the level of career decision making self-efficacy of university students?
2. Is there a significant difference between the pre and posttest scores of university students' career decision making self-efficacy level?
3. Do the pre and posttest scores of university students' career decision making self-efficacy differ by gender?
4. Is there a relationship between students' grades in the course 'Career Planning in Transition to Business Life' and their career decision making self-efficacy pre and post test scores or the difference between scores?

2. Method

2.1. Design of the Study

A quasi-experimental pretest-posttest design was employed in this study, which aims to investigate the change in university students' career decision making self-efficacy levels.

2.2. Participants

The participants of the study, which were determined by criterion sampling as one of the purposeful sampling methods, consisted of 29 students (16 females, 13 males) who took the "Career Planning in Transition to Business Life" course from different faculties of a public university in Ankara. The study was carried out in the spring term of the 2018-2019 academic year. Criterion sampling is the forming of the sample from individuals, events,

objects or situations that have the specified qualifications related to the problem (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2018). In order to test the effectiveness of the practices, taking the career planning in transition to business life course was determined as the criterion in determining the sample. Table 1 shows the distribution of the participants according to gender, department and year at university.

Table 1. Distribution of participants according to gender, department and year

Variable	Group	f	%
Gender	Female	16	55
	Male	13	45
Department	Industrial engineering	8	27.5
	Manufacturing engineering	5	17.24
	Industrial design engineering	4	13.8
	Computer engineering	4	13.8
	Nutrition and diatetics	3	10.34
	Civil engineering	2	6.9
	Energy systems engineering	1	3.44
	Chemical engineering	1	3.44
	Mechanical engineering	1	3.44
Year	Freshman	3	10.34
	Sophomore	12	41.4
	Junior	11	38
	Senior	3	10.34
Total		29	100

From Table 1, the distribution of the participants can be examined by gender; females (f: 16;) and males (f: 13;), by departments; industrial engineering (f: 8), manufacturing engineering (f: 5), industrial design and computer engineering (f: 4), nutrition and dietetics (f: 3), civil engineering (f: 2), energy systems, chemistry and mechanical engineering (f: 1), and by years at university; freshman and senior (f = 3), sophomore (f = 12), and junior (f = 11).

2.3. Data Collection Instrument

2.3.1. Career Decision Making Self-Efficacy Scale: In this research study, "Career Decision Making Self-Efficacy Scale" developed by Ulaş & Yıldırım (2016) was used to measure career decision making self-efficacy levels of university students. The scale is a 5-point Likert type scale (I am sufficient = 5, I am quite sufficient = 4, I am partially sufficient = 3, I am not really sufficient = 2, I am not sufficient at all = 1), and it consists of 45 items. Subscales were named as "knowledge of jobs", "knowledge of self", "career choice", "ways to create a career plan" and "following professional issues". The total score that can be obtained from the scale varies between 45-225. The total score that can be obtained is 11-55 for the "knowledge of jobs" dimension, 10-50 for the "knowledge of self"; 6-30 for "career choice" 14-70 for "ways to create a career plan", and 4-20 for "following professional issues". Cronbach Alpha = .97 has been found by Ulaş & Yıldırım (2016) for the entire scale. Higher scores obtained from the scale shows university students' self-efficacy in career decision making.

2.4. Procedure

The study lasted a total of 12 weeks - 2 weeks were for the application of the pre and posttests, and10 weeks were allocated for practice. During the "Career Planning in Transition to Business Life" course (10 weeks), activities that were related to the determined topics were applied by the researcher. The content of the course designed by the researcher based on the reference books on the subject is given in Table 2.

Table 2. Course content and the activities covered

Week	Content	Activities
Week 1	What is career? What is career planning?	"Differences between career, job, and work", "The importance of career decisions in our lives" (Kuzgun, 2004)
Week 2	The importance of career development and factors effecting career development process	Circles Test activity (Marko & Savickas, 1998; Savickas, 1991)
Week 3	Aptitudes, interests, and skills	The most dominant aptitudes, interests and values, and transferrable skills form
Week 4	Personality types	Hexagonal Garden activity (Özyürek, 2009)
Week 5	Methods of preparing a CV	Sample CV (Işık, 2015: 98)

Week 6	Successful job applications and effective job interviews	Frequently asked questions in job interviews (Işık, 2015: 99)
Week 7	Meeting successful people of the field and success stories	Job Analysis form (Lock, 1992)
Week 8	Expectations of the government and private sector from the graduates	Profit/Loss Analysis form (Işık, 2015: 93)
Week 9	Ethical guidelines for the job	Presentation on the ethical guidelines for the job
Week 10	National and international research studies conducted in the field	Students' presentations

The course taught by the researcher lasted 2 hours a week. The content of the course consisted of the following:

Week 1: Firstly, the students met each other. Overall information about what the course would be like was given. Job, work and career concepts were explained and the differences between them were indicated. The importance of career decisions in our lives was mentioned and the form (Kuzgun, 2004) was examined. Open-ended questions determined by the researcher were directed to the students. These questions are * Who planned your career?, * When does career planning begin?, * How long does career planning last ?, * Which aspects of your life do career decisions affect?

Week 2: Students were asked what factors might affect the career development process. Then the factors that affect the career development process were specified and the importance of career development was emphasized. Circles Test activity was conducted (Marko & Savickas, 1998; Savickas, 1991). Students were given a blank sheet. Students represented their past, present and future with a circle for each. They made explanations by writing three words reflecting their feelings about the past, present and future in these circles.

Week 3: Students were asked "How can knowing the aptitudes, interests and skills one has help in making a good career plan?" Definitions of the concepts of aptitude, interest and skill were made. Transferable skills form was distributed to students. Students shared the skills they believe they have with the class.

Week 4: Personality types based on Holland's theory (1997) were explained to students and "Hexagonal Garden" activity (Özyürek, 2009) was applied. Discussions were held about which personality types students find themselves close to, and people of which personality types they would like to work with in their professional life.

Week 5: Information about how to write a good CV and the points to consider are given with the help of the slides prepared by the researcher. Sample CV form (Işık, 2015: 98) was distributed to students. Brainstorming was done on the items in the form.

Week 6: Information on the things one should be careful about for an effective job interview is given. The students were asked if they had applied for a job before. Students who had applied for a job shared their experiences. Discussions were made on frequently asked questions in job interviews (Işık, 2015: 99).

Week 7: Students were asked to research success stories. The lives of the people examined in the stories were discussed. The things that students should pay attention to when choosing a job were mentioned. Students were asked which ones they give importance to among the items in the "Job Analysis" form (Lock, 1992). Students prepared interview questions by considering the criteria in the form and interviewed a person who belonged to their profession.

Week 8: Summaries of the interviews made during the previous week were shared in the classroom. "Profit/Loss Analysis" form (Işık, 2015: 93) was given to the students. The differences between working in a government institution and working in the private sector in terms of working hours, income, and working environment were discussed.

Week 9: Since the students were at different departments, general information about postgraduate education was given. Students were asked if they would like to have postgraduate degrees, and the reasons for their decisions were discussed.

Week 10: The students were asked to present national and international research studies conducted in their fields. It was discussed how they could make use of the awareness gained during this process in their career development process.

2.5. Data Analysis

In the scale developed by Ulaş and Yıldırım (2016), five-point rating (I am sufficient = 5, I am quite sufficient = 4, I am partially sufficient = 3, I am not really sufficient = 2, I am not sufficient at all = 1) was used. The data were analyzed using SPSS 18.0 and significance level was determined as p=0.05. Data were missing in the forms of 4 students; thus, they were excluded from the evaluation. When the obtained skewness and kurtosis values of the data fall between -2.0 and +2.0, parametric analyses can be performed (George & Mallery, 2010). Therefore, parametric tests (Independent groups t-test, dependent groups t test, and bivariate correlation analysis) were used to analyze the data collected in this study.

3. Findings

3.1. Normality Tests

Whether the data is normally distributed or not was investigated with the Shapiro-Wilk test and skewness-kurtosis values, as can be seen in Table 3.

Table 3. Normality test results of the overall scale and subscales

		Shapiro-Wilk				
Tests	Subscales	Statistic	SD	p	Skewness	Kurtosis
Pretest	Knowledge of Jobs	.984	29	.920	-.141	-.120
	Career Choice	.962	29	.361	.305	-.791
	Ways to Create a Career Plan	.981	29	.861	-.305	-.039
	Following Professional Issues	.967	29	.493	-.056	-.786
	Knowledge of Self	.961	29	.341	-.454	.904
	Overall	993	29	.999	-.062	-.283
Posttest	Knowledge of Jobs	.982	29	.894	.388	.907
	Career Choice	.975	29	.713	.039	-.242
	Ways to Create a Career Plan	.972	29	.615	.178	.245
	Following Professional Issues	.951	29	.200	.396	-.293
	Knowledge of Self	.972	29	.621	.170	-.625
	Overall	.958	29	.295	.078	-.277

When Table 3 is examined, it can be observed that all the pretest and posttest scores have skewness and kurtosis coefficients between -2 and +2, and all the p values of the Shapiro-Wilk test are greater than .05 (George & Mallery, 2010). This means that the data is normally distributed. Therefore, the data was proven appropriate to perform parametric tests on (Leech, Barrett, & Morgan, 2005).

3.2. Descriptive Statistics

Since the number of items in each subscale varies, the average scores for the subscales were transformed to a value between 1-5 by dividing them by the number of the items in that subscale. In the evaluation of the arithmetic averages obtained from the research, the following ranges were used: (Tekin, 1993) "1.00–1.80: Very low", "1.81–2.60: Low", "2.61–3.40: Medium", "3.41–4.20: High", "4.21–5.00: Very High. Since there are 45 items in the scale, the minimum value that could be obtained from the scale was 45 and the maximum value was 225. To determine the interval, the minimum value is subtracted from the maximum value, and the result is divided by the number of likert [(225-45)/5=36)]. The table below shows the range values for the options and the frequency-percentage values of the participants.

Table 4. Findings of the rating study

Option	Value	Range	Class	f	%
I am not sufficient at all	1	45-81	Very low	-	-
I am not really sufficient	2	82-118	Low	1	3.44
I am partially sufficient	3	119-155	Medium	21	72.41
I am quite sufficient	4	156-192	High	7	24.13
I am sufficient	5	193-229	Very high	-	-

When Table 4 is analyzed, it is seen that most of the students have career decision making self-efficacy at a medium level (72.41%). The results also show that 3.44% of the students have it at a low level and 24.13% of them at a high level.

The first sub-question of the research was "What is the level of career decision making self-efficacy of university students?" Descriptive statistics regarding the pre and posttest results are given in Table 5.

Table 5. Descriptive statistics regarding the pre and posttest of the overall scale and subscales

Test	Subscales	n	$\overline{X}$	Median	Mode	SS	Min.	Max.
Pre test	Knowledge of Jobs	29	3.20	3.18	3	.458	2	4
	Career Choice	29	3.56	3.50	4	.537	3	5
	Ways to Create a Career Plan	29	3.00	3.00	3	.457	2	4
	Following Professional Issues	29	2.87	2.75	3	.693	2	4
	Knowledge of Self	29	3.33	3.40	4	.511	2	5
	Overall	29	3.18	3.16	3	.37	2	4

Post test	Knowledge of Jobs	29	3.79	3.82	4	.449	3	5
	Career Choice	29	4.05	4.00	4	.452	3	5
	Ways to Create a Career Plan	29	3.78	3.79	4	.503	3	5
	Following Professional Issues	29	3.45	3.25	3	.642	3	5
	Knowledge of Self	29	3.87	3.80	4	.456	3	5
	Overall	29	3.80	3.80	4	.38	3	5

When Table 5 is examined, it is seen that the arithmetic mean, median, and mode values are close to each other, indicating that the data has a normal distribution (Büyüköztürk, Çokluk, & Köklü, 2017, p.59). Among the pre and posttest scores, the lowest average score belonged to "Following Professional Issues" $\bar{X}$=2.87; $\bar{X}$=3.45) subscale, and the highest score to "Career Choice" subscale ($\bar{X}$=3.56; $\bar{X}$=4.05)

The second research sub-question of the study is "Is there a significant difference between the pre and posttest scores of university students' career decision making self-efficacy level?"

The H_{02} hypothesis developed as an alternative to the second sub-question of the study is as follows:

Null hypothesis 2 (H_{02}): There is no significant difference between the pre and posttest scores of university students' career decision making self-efficacy level?

Dependent groups t-test results regarding whether Career Planning Course in Transition to Business Life has an effect on students' career decision making self-efficacy levels are given in Table 6.

Table 6. Dependent t-test results of the overall scale and subscales

Subscales	Group	N	$\overline{X}$	SS	SD	t	p	Cohen's d
Knowledge of Jobs	Pretest	29	3.20	.458	28	-4.75	.000	1.30
	Posttest	29	3.79	.449				
Career Choice	Pretest	29	3.56	.537	28	-4.40	.000	0.99
	Posttest	29	4.05	.452				
Ways to Create a Career Plan	Pretest	29	2.99	.457	28	-6.15	.000	1.64.
	Posttest	29	3.78	.503				
Following Professional Issues	Pretest	29	2.87	.693	28	-3.97	.000	0.87
	Posttest	29	3.45	.642				

Knowledge of Self	Pretest	29	3.33	.511	28	-6.45	.000	1.12
	Posttest	29	3.87	.456				
Overall	Pretest	29	3.18	.370	28	-7.00	.000	1.65
	Posttest	29	3.80	.382				

p<.05

When Table 6 is analyzed, it is seen that while the mean score of the students' career decision making self-efficacy level in the pre-test was ($\bar{X}$ =3.18; SS=.370), in the posttest, it was ($\bar{X}$=3.80; SS =.382). As for the subscales, the mean scores of the posttests are higher than the mean scores of the pretests, as well. There was a statistically significant difference between the pretest and posttest of students' career decision making self-efficacy levels [t (28) = -7.00, p = <.05, d = 1.65)]. By this finding, it can be said that the activities applied during the course have a large effect on career decision making self-efficacy levels of students.

The third sub-question of the research is "Do the pre and posttest scores of university students' career decision making self-efficacy differ by gender?"

The H_{03} hypothesis developed as an alternative to the third sub-question of the study is as follows:

Null hypothesis 3 (H_{03}): Pre and posttest scores of university students' career decision making self-efficacy do not differ by gender.

Independent groups t-test results regarding whether pre and posttest scores of university students' career decision making self-efficacy differ by gender are given in Table 7.

Table 7. Independent t-test results of the overall scale and subscales by gender

Subscales	Test Type	Gender	N	$\overline{X}$	SS	SD	t	p
Knowledge of Jobs	Pretest	Female	16	3.24	.378	27	.529	.601
		Male	13	3.15	.554			
	Posttest	Female	16	3.83	.493	27	.520	.607
		Male	13	3.74	.401			
Career Choice	Pretest	Female	16	3.47	.572	27	-1.053	.302
		Male	13	3.68	.488			
	Posttest	Female	16	3.93	.463	27	-1.701	.100
		Male	13	4.21	.403			
Ways to Create a Career Plan	Pretest	Female	16	3.00	.487	27	.158	.875
		Male	13	2.97	.437			
	Posttest	Female	16	3.79	.571	27	.058	.955
		Male	13	3.77	.425			

Following Professional Issues	Pretest	Female	16	2.86	.769	27	-.096	.924
		Male	13	2.88	.618			
	Posttest	Female	16	3.42	.669	27	-.241	.811
		Male	13	3.88	.633			
Knowledge of Self	Pretest	Female	16	3.29	.532	27	-.462	.647
		Male	13	3.38	.500			
	Posttest	Female	16	3.81	.460	27	-.771	.448
		Male	13	3.94	.459			
Overall	Pretest	Female	16	3.17	.397	27	-.126	.901
		Male	13	3.19	.351			
	Posttest	Female	16	3.78	.432	27	-.323	.749
		Male	13	3.83	.326			

$p<.05$

When Table 7 is analyzed, it is seen that the pre-posttest average scores of female and male students are lowest in the "Following Professional Issues" and the highest in the "Career Choice" subscales. It is obtained that female and male students have pre-test mean scores of ($\bar{X}$=3.17; $\bar{X}$=3.19) and post-test mean scores of ($\bar{X}$ =3.78; $\bar{X}$=3.83) from the overall scale. There is no significant difference between female and male students' pre or posttest average scores of career decision making self-efficacy (t=-.126; t = -.323; p> .05). Therefore, it can be stated that gender does not have a significant relationship with the level of career decision making self-efficacy.

The fourth sub-question of the study is "Is there a relationship between students' grades in the course 'Career Planning in Transition to Business Life' and their career decision making self-efficacy pre and post test scores or the difference between scores?"

The H_{04} hypothesis developed as an alternative to the fourth sub-question of the study is as follows:

Null hypothesis 4 (H_{04}): There is no relationship between students' grades in the course 'Career Planning in Transition to Business Life' and their career decision making self-efficacy pre and post test scores or the difference between scores.

A bivariate correlation analysis was conducted to determine whether there is a relationship between students' grades in the course and their career decision making self-efficacy pre and post test scores or the difference between scores. The average of students' midterm and final grades were used.

Table 8. Correlations among Pretest, Posttest and Difference Scores and Course Grade

Variable	Pretest	Posttest	Difference	Course Grade

Pretest	Pearson correlation (r)		.185	-.623**	-.222
	Sig. (2-tailed) (p)		.336	.000	.247
	N		29	29	29
Posttest	Pearson correlation (r)	.185		.654**	-.093
	Sig. (2-tailed) (p)	.336		.000	.632
	N	29		29	29
Difference	Pearson correlation (r)	-.623**	.654**		.098
	Sig. (2-tailed) (p)	.000	.000		.612
	N	29	29		29
Course Grade	Pearson correlation (r)	-.222	-.093	.098	
	Sig. (2-tailed) (p)	.247	.632	.612	
	N	29	29	29	

p<.05

When Table 8 is analyzed, a significant negative relationship is observed between the students' pretest scores and the difference between the pretest and posttest scores (r=-. 623, p <.05). Also, a significant positive relationship exists between the post test scores and the difference between scores (r = -. 654, p <.05). There is no significant correlation between the pre and posttest scores of the students or the difference between these scores and their grades. In other words, the scale scores increased independent from the grades they got from the course.

4. Discussion and Conclusion

The aim of this research study is to examine the change in university students' level of career decision making self-efficacy. For this purpose, the results obtained from the research are presented in accordance with the sub questions. It is seen that the career decision making self-efficacy of students are at the "medium" level before the application, and at the "high" level after the application. Research on the subject shows that students with higher career decision making self-efficacy levels have lower career indecision levels (Betz & Voyten, 1997; Büyükgöze-Kavas, 2011; Gloria & Hird, 1999; Taylor & Betz, 1983; Ye, 2014). Regarding the second sub-question of the study, it has been found out that there

is a significant difference between the pre and posttest scores of the students' career decision making self-efficacy. This shows that the course "Career Planning in Transition to Business Life" conducted by the researcher for 10 weeks has had a highly significant positive effect on students' career decision making self-efficacy. Studies exist in literature that demonstrate the effectiveness of programs implemented to increase the career decision making self-efficacy expectations of university students (Foltz & Luzzo, 1998; Scott & Ciani, 2008). Regarding the third sub-question of the study, it has been determined that students' level of career decision making self-efficacy do not differ by gender. When similar studies on the subject are examined, it is seen that there are findings that support the results of the current study (Brown & Lavish, 2006; Chung, 2002; Concannon & Barrow, 2012; Coon, 2009; Foltz & Luzzo, 1998). On the other hand, there are studies showing that the level of career decision making self-efficacy varies by gender (Betz & Voyten, 1997; Floyd, 2006; Gianakos, 2001; Wolfe & Betz, 2004). As a reason for this situation, it can be argued that the beliefs of individuals about which fields they will succeed is influenced not only by gender, but by the meanings they place on being 'woman' or 'man'. Regarding the fourth sub-question of the research, it has been revealed that there is no significant correlation between the pre and posttest scores of the students and their grades from the course. In other words, their scores increased independent from the course grades. Studies on this issue show that there are significant relationships between the grade point average (Lent, Brown & Larkin, 1986; Peterson, 1993) and career decision making self-efficacy. Bandura (1997) states that self-efficacy beliefs are affected by experiences of success. According to research, one of the sources that directly forms the basis for the development of career exploration self-efficacy is experience. In other words, individuals' career exploration self-efficacy can be developed through experiences related to activities (Komarraju, Swanson, & Nadler, 2014). Therefore, students can be helped by providing effective experiences to develop their career decision making self-efficacy during their university years.

5. Suggestions

Suggestions based on the results obtained from this research study are listed as follows:

- Educators can come up with solutions addressing the needs of university students by determining their career decision making self-efficacy levels.

- Different career courses can be taught to increase the career decision making self-efficacy levels of university students.

- Students can be provided with effective experiences to develop their career decision making self-efficacy during their university years.

References

Bandura, A. (1997). Self-efficacy: The exercise of control. New York: W.H. Freeman and Company.

Betz, N. E., & Voyten, K. K. (1997). Efficacy and outcome expectations influence career exploration and decidedness. The Career Development Quarterly, 46(2), 179-189.

Brown, C., & Lavish, L. A. (2006). Career assessment with native Americans: role salience and career decision-making self-efficacy. Journal of Career Assessment, 14(1), 116-129.

Büyükgöze-Kavas, A. (2011). Testing a model of career ındecision among university students based on social cognitive career theory (Doctoral dissertation). Middle East Technical University, Educational Sciences, Ankara.

Büyüköztürk, Ş., Çakmak, E. K., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2018). Eğitimde bilimsel araştırma yöntemleri, 25. Baskı. Ankara: Pegem Akademi.

Chung, Y. B. (2002). Career decision-making self-efficacy and career commitment: Gender and ethnic differences among college students. Journal of Career Development, 28(4), 277-284.

Concannon, J. P., & Barrow, L. H. (2012). A reanalysis of engineering majors' self-efficacy beliefs. Journal of Science Education and Technology, 21(6), 742-753.

Coon, K. L. (2009). Predicting career decision-making difficulties among undergraduate students: the role of career decision making self-efficacy, career optimism and coping (Unpublished Doctoral Dissertation). Southern Illinois University Carbondale, Illinois.

Ertem, H. Y., Engin-Demir, C. & Gökalp, G. (2017). Öğretmen adaylarının kariyer planlaması: Bir ihtiyaç analizi çalısması. 12th International Congress on Educational Administration, Ankara.

Floyd, T. D. (2006). Family dysfunction, parental attachment and career (pleasetypo)decision-making self-efficacy among college students (Unpublished Doctoral Dissertation). Temple University, Philadelphia.

Foltz, B. M., & Luzzo, D. A. (1998). Increasing the career decision-making self-efficacy of nontraditional college students. Journal of College Counseling, 1, 35-44.

Fouad, N., Cotter, E. W., & Kantamneni, N. (2009). The effectiveness of a career decision-making course. Journal of Career Assessment, 17(3), 338–347.

Gati, I., Krausz, M., & Osipow, S. H. (1996). A taxonomy of difficulties in career decision making. Journal of Counseling Psychology, 43, 510 –526.

George, D. & Mallery, M. (2010). SPSS for Windows step by step: A simple guide and reference, 17.0 update (10a ed.). Boston: Pearson.

Gianakos, I. (2001). Predictors of career decision-making self-efficacy. Journal of Career Assessment, 9(2), 101-114.

Gloria, A. M., & Hird, J. S. (1999). Influences of ethnic and non-ethnic variables on the career decision-making self-efficacy of college students. The Career Development Quarterly, 48, 157-174.

Griffin, R.W., 1993; Management, 4th Edition, Texas, USA: Houghton Mifflin Company.

Hansen, J.M., & Pedersen, J. (2012). An examination of the effects of career development courses on career decision-making self-efficacy, adjustment to college, learning integration, and academic success. Journal of the First-Year Experience & Students in Transition, 24(2), 33-61.

Hinkelman, J. M., & Luzzo, D. A. (2007). Mental health and career development of college students. Journal of Counseling & Development, 85(2), 143-147.

Işık, E. (2007). Üniversite öğrencilerinin üniversitelerinde verilen kariyer danışmanlığı hizmetlerine ilişkin algı ve beklentileri. XVI. Eğitim Bilimleri Kongre Kitabı (2. Cilt). Ankara: Detay Yayıncılık.

Işık, E. (2010). Sosyal bilişsel kariyer teorisi temelli bir grup müdahalesinin üniversite öğrencilerinin kariyer kararı yetkinlik ve mesleki sonuç beklenti düzeylerine etkisi. (Yayınlanmamış Doktora Tezi). Çukurova Üniversitesi, Adana.

Işık, E. (2015). Üniversiteye yeni başlayan öğrenciler için kariyer kararı verme yetkinliği programı (1. Baskı), Ankara: Nobel Yayın Dağıtım.

Kuzgun, Y. (2004). Meslek rehberliği ve danışmanlığına giriş (2.Baskı), Ankara: Nobel Yayın Dağıtım.

Leech, N. L., Barrett, K. C., Morgan, G. A., & Clay, J. N., & Quick, D. (Collaborators). (2005). SPSS for intermediate statistics: Use and interpretation (2nd ed.). Lawrence Erlbaum Associates Publishers.

Lent, R. W., Brown, S. D., & Hackett, G. (2002). Social cognitive career theory. In D. Brown (Ed.), Career Choice and Development. San Francisco, CA: Jossey-Bass.

Lent, R. W., Brown, S. D., & Larkin, K. C. (1986). Self-efficacy in the prediction of academic performance and perceived career options. Journal of Counseling Psychology, 33(3), 265.

Lent, R. W., Hackett, G., & Brown, S. D. (1999). A social cognitive view of school to work transition. The Career Development Quarterly, 44, 297-311.

Lock, R. D. (1992). Taking charge of your career direction. Career Planning Guide (2nd ed). Pacific Grove, CA: Brooks/Cole.

Marko, K.W. & Savickas, M. L. (1998). Effectiveness of a career time perspective intervention. Journal of Vocational Behavior, 52, 106–119.

Niles, S.G., & Bowlsbey, J. H. (2013). Career development interventions in the 21st century. New Jersey: Merrill Prentice Hall.

Özyürek, R. (2009). Kariyer psikolojik danışma süreci ve ilgi envanterlerinin profillerini yorumlama becerileri. F.K. Owen, R. Özyürek ve D.W. Owen (Ed.). Gelişen psikolojik danışma ve rehberlik: Meslekleşme sürecindeki ilerlemeler, içinde (s. 51-81). Ankara: Nobel Yayın Dağıtım.

Peterson, S. L. (1993). Career decision-making self-efficacy and institutional integration of underprepared college students. Research in Higher Education, 34(6), 659-685.

Reese, R. J., & Miller, C. D. (2006). Effects of a university career development course on career decision-making self-efficacy. Journal of Career Assessment, 14(2), 252-266.

Savickas, M. L. (1991). Improving career time perspective. In D. Brown & L. Brooks (Eds.), Career counseling techniques (pp. 236–249). Needham Heights, MA: Allyn & Bacon.

Scott, A. B., & Ciani, K. D. (2008). Effects of an undergraduate career class on men's and women's career decision-making self-efficacy and vocational identity. Journal of Career Development, 34(3), 263-285.

Sharf, R. S. (2002). Applying career development theory to counseling. Pacific Grove, CA.: Brooks/Cole Thomson Learning.

Taylor, K. M., & Betz, N. E. (1983). Applications of self-efficacy theory to the understanding and treatment of career indecision. Journal of Vocational Behavior, 22(1), 63-81.

Tekin, H. (1993). Eğitimde ölçme ve değerlendirme. Ankara: Yargı Yayınevi.

Türkiye İstatistik Kurumu (2019). İşgücü istatistikleri. http://tuik.gov.tr/PreHaberBultenleri.do?id=33777 (Erişim Tarihi: 04.02.2019).

Ulaş, Ö., & Yıldırım, İ. (2016). Kariyer Kararı Verme Yetkinliği Ölçeği'nin geliştirilmesi. Türk Psikolojik Danışma ve Rehberlik Dergisi, 6(45), 77-90.

Wendlandt, N. M., & Rochlen, A. B. (2008). Addressing the college-to-work transition: Implications for university career counselors. Journal of Career Development, 35(2), 151–165.

Wolfe, J. B., & Betz, N. E. (2004). The relationship of attachment variables to career decision-making self-efficacy and fear of commitment. The Career Development Quarterly, 52, 363-369.

Ye, Y. (2014). Role of career decision-making self-efficacy and risk of career options on career decision-making of Chinese graduates. Psychological reports, 114(2), 625-634.

Zunker, V. G. & Osborn, D. (2002). Using assessment results for career development. California: Pacific Grove, CA: Brooks/Cole.