ULUSLARARASI EĞİTİM BİLİMLERİ DERGİSİ
ISSN: 2149-0848
THE JOURNAL OF INTERNATIONAL EDUCATION SCIENCE

Career Decision-Making Difficulties on
High School Students

Lise Öğrencilerinin Kariyer Karar Verme
Zorlukları

Volkan FİDAN*
Selçuk NAS**

Submitted / Geliş: 25.10.2021
Accepted / Kabul: 19.12.2021
Published /Yayın: 26.12.2021

10.29228/INESJOURNAL.53964

Article Information: **Research Article** Makale Türü: **Araştırma Makalesi**

Citation / Atıf

Fidan, V. & Nas, S. (2021). Career decision-making difficulties on high school students. *The Journal of International Education Science*, 8 (29), 1-18.

Fidan, V. ve Nas, S. (2021). Lise öğrencilerinin kariyer karar verme zorlukları. *The Journal of International Education Science*, 8 (29), 1-18.

This article was checked by Intihal.net. Bu makale İntihal.net tarafından taranmıştır.
This article is under the Creative Commons license. Bu makale Creative Commons lisansı altındadır.

*Lecturer., Ege University, volkan.fidan@ege.edu.tr

**Prof. Dr., Dokuz Eylül University, snas@deu.edu.tr

ULUSLARARASI EĞİTİM BİLİMLERİ DERGİSİ

ISSN: 2149-0848

THE JOURNAL OF INTERNATIONAL EDUCATION SCIENCE

Career Decision-Making Difficulties on High School Students*

Lise Öğrencilerinin Kariyer Karar Verme Zorlukları

Lecturer Volkan FİDAN

Prof. Dr. Selçuk NAS

Abstract: The aim of this study is to determine the differences in the career decision making difficulties between the 12th grade students of the maritime vocational high school and the other 12th grade students of the other high schools in İzmir. The data have been collected using the Career Decision Making Difficulties Questionnaire (CDDQ) prepared by Gati, Krauz and Osipow (1996) and adapted to Turkish by Bacanlı (2008) and Kesici, Hamarta and Arslan (2007) to be applied to high school students. The participants of the study are 500 high school students. The result of the study reveals that maritime vocational high school students have more difficulties in choosing an occupation than the other high school students do. Besides the students who have participated in the study have medium difficulty level and female and male students have the same difficulty level in career decision making difficulties.

Keywords: Educational science, occupation, choice of occupation, career decision-making difficulties, marine occupation.

Öz: Bu çalışmanın amacı, İzmir'deki denizcilik meslek lisesi 12. sınıf öğrencileri ile diğer liselerin 12. sınıf öğrencileri arasındaki kariyer karar verme güçlüklerindeki farklılıkları belirlemektir. Veriler Gati, Krauz ve Osipow (1996) tarafından hazırlanan ve lise öğrencilerine uygulanmak üzere Bacanlı (2008) ve Kesici, Hamarta ve Arslan (2007) tarafından Türkçeye uyarlanan Kariyer Karar Verme Güçlükleri Anketi (CDDQ) kullanılarak toplanmıştır. Araştırmanın katılımcıları 500 lise öğrencisidir. Araştırmanın sonucu, denizcilik meslek lisesi öğrencilerinin meslek seçiminde diğer lise öğ-

* Statements of "COPE-Code of Conduct and Best Practices Guidelines for Journal Editors": No conflicts of interest were reported for this article. Ethics committee approval is not required for this article. Author contributions: %85-%15. Corresponding Author: Volkan FİDAN

"COPE-Dergi Editörleri İçin Davranış Kuralları ve En İyi Uygulama İlkeleri" beyanları: Bu çalışma için herhangi bir çıkar çatışması bildirilmemiştir. Bu çalışmanın veri toplama araştırma safhası 2019-2019 yılında gerçekleştirildiği için etik kurul onayı gerekmemektedir. Katkı Oranı Beyanı: %85-%15. Sorumlu Yazar: Volkan FİDAN

rencilerine göre daha fazla zorlandıklarını ortaya koymaktadır. Ayrıca kariyer karar verme güçlüklerinde araştırmaya katılan öğrenciler orta derecede, kız ve erkek öğrenciler aynı derecede güçlük çektikleridir.

Anahtar Kelimeler: Eğitim bilimleri, meslek, meslek seçimi, kariyer karar verme zorlukları, denizcilik mesleği.

Introduction

Choice of occupation is a process that occurs over time shaping a person's marriage, overall view on life, daily lifestyle and attitudes (Çakır, 2004: 2; Kepçeoglu, 2004). When making such an important decision that directly affects personal life, individuals have to take into account their own talents and requirements and also the basic necessities of that particular time. This decision affects the individual's social acceptance, psychological and health state, so it may have lifelong results in the future of the individuals (Mann, Harmoni and Power, 1989: 268). Although some individuals make career decisions relatively easily, many others face difficulties during or before the decision-making process (Gati & Saka, 2001: 331). The problems that occur in the decision-making phase of what kind of occupation is more suitable for students according to their characteristics are called 'Career Decision-Making Difficulties' (Gati, Krauzs and Osipow, 1996: 511).

Kuzgun (2003) has defined as a set of activities that the concept of occupation, produce useful goods or services to people, enable them to earn money and gain a decent level of education, based on having acquired systematic knowledge and skills. The rapid increase in the world population has led to an increase in needs and the increasing needs have led to the diversification of branches of occupation. The changes in the economic, social and cultural fields have deeply unsettled the quality of work and labor force, the organizational processes of work, the structure of organizations and their understanding of management (Aytekin, 2005: 55). Particularly in the 1930s, it was understood that the importance of the human element in business life was directly proportionate to the development of the behavioral management and organization theories (Koçel, 2013: 233). In the other words, it was accepted that the worker's happiness in his / her occupation would increase productivity in organization and social welfare.

In Turkey, the difficulties in choice of occupation is most concentrated on transition period from high school (upper secondary school) to higher education (third level education). However, it is important how much the individual explore themselves about their characteristics or to what extent they know the social dimensions of the occupations.

Despite the wide range of employment opportunities of the maritime sector, marine occupation is open to hazards, carried out under severe natural conditions, away from home and has a strict hierarchical structure. Seafarers are considered the

most isolated groups due to their hard-working environment (Yorulmaz, 2018). However, high salary in the marine occupation encourages students to move towards this field. Still, the students making career decision in maritime sector must know the advantages and disadvantages of the occupation.

Literature review

When the studies related to the career decision making difficulties were examined, it was found that the people who conducted the study tended to look at the subject from three different perspectives. These are the studies focused on profile variables, cultural differences and career counseling.

Gati and Saka (2001) revealed that boys reported higher difficulties than girls in external conflicts and dysfunctional beliefs similar to Gati, Krausz ve Osipow (1996) studies. Albion and Fogarty (2002) revealed that older career deciders reported fewer difficulties on all CDDQ subscales in the study of focusing different ages. Bacanlı (2012) revealed that there were significant differences in career decision making difficulties of the students according to the gender (males had more difficulties than female), perceived academic achievement (perceived their academic achievement bad had more difficulties than perceived good), and decided and undecided situation for career (undecided persons about their career had more difficulties than decided persons). Bacanlı, Eşici and Özünlü (2013) revealed that females had less difficulties on the CDDQ total scale, lack of readiness subscale, lack of information subscale and inconsistent information subscale were significantly lower than males. As grade level increased, female had less difficulties on the career decision-making difficulties scores on the CDDQ total scale, lack of readiness subscale, lack of information subscale and inconsistent information subscale than males. As socioeconomic status and severity of difficulties increase the career decision making difficulty level decrease for all scales of all students. Decided students are significantly lower than those of the undecided students. All of these studies focused on career decision making difficulties according to profile variables as our present research.

Mau (2001) revealed that Taiwanese students report more difficulties in career decision making and tend to be more indecisive in their career decision making than American students. Mau (2004) indicated Asian American students had more difficulties in career decision making than other groups, whereas White American students had the fewest difficulties. Asian American students had more difficulties than White and Hispanic American students before the process and more difficulties than White and African American students during the process. Hijazi, Tatar and Gati (2004) revealed that there were no significant differences in career decision making difficulties in East Jerusalem, areas in the West Bank under the Palestinian National Authority, and Israel. Zhou ve Santos (2007) revealed that there were no significant differences in ca-

reer decision making difficulties between Chinese and British international university students. These studies focused the career decision making difficulties according to cultural differences.

Gati, Saka and Krausz (2001) revealed that there were significant reduction in career decision making difficulty level of students after computer-assisted career guidance systems on 7 of categories 10 in CDDQ. Fouad et al. (2006) revealed that students had difficulties with career decions and high levels of psychological distress and half of these students were aware of career services but much fewer had used those services. Fouad, Cotter ve Kantamneni (2009) indicated there were significant decrease in career decision making difficulties after completion of career course. These studies focused the career decision making difficulties according to career counseling.

Taxonomy of Career Decision-Making Difficulties rely on decision theory. Gati et al (1996) developed an ideal decision maker who is aware of the need to make a career decision, is willing to make it, and is capable of making the right decision. If career decision maker has any deviation from ideal career decision, it has two possible reasons: (a) by preventing the individual from making a decision or (b) by leading to a less than optimal decision (Gati, Krausz ve Osipow, 1996). The strongest part of the taxonomy is that it tackles the problem of the career decision making 'prior to beginning of the process' and 'during the process'.

In career decision-making difficulties, there have been many research having used CDDQ (Career Decision-Making Difficulties Questionnaire), the overall findings reveal that males have more difficulties in external conflicts and dysfunctional beliefs than girls do (Gati and Saka, 2001; Zhou ve Santos, 2007; Bacanlı, 2012; Bacanlı, Eşici ve Özünlü, 2013). In some other perspectives of career decision-making, it has been concluded that the students who consider their occupations have fewer difficulties than the students who don't (Tien, 2005; Bacanlı, 2012; Bacanlı, Eşici ve Özünlü, 2013). Another reveal is that there are no signficiant differences between male and female students in encountering such difficulties (Albion, 2000; Akkoç, 2012; Karaca, 2013).

The aim of the study

The aim of this study is to determine the degree of the difficulties experienced by 12th grade maritime vocational high school students, other vocational high school and general high school students, especially focusing on 12th grade students because they are in the career decision stage of transition to higher education. The study involves Career Decision-Making Difficulties degrees and differences across genders, including whether they made career decisions or not and their confidence level of career decision.

Methodology

Participants

The sample of the study involves 500 high school students (upper secondary education) (185 females and 315 males) who are at 12th grade on vocational and technical (94 students from maritime field and 180 students from other vocational field and 226 students from general secondary education) in İzmir/Turkey. The participants are from four high schools (two of which are vocational and technical high schools and the others are general high schools) in İzmir (Table 1).

Table 1. Frequency and Percentages of the Participants

GENDER			FIELD OF EDUCATION		
	(n)	%		(n)	%
Male	315	63,0	Maritime Vocational High School	94	18.8
Female	185	37,0	The Other Field Vocational High School	180	36.0
			General High School	226	45.2
Total	500	100,0	Total	500	100,0

Instruments

In this study 34 items of Career Decision-Making Difficulties Questionnaire (CDDQ) have been used with the permission of Prof. Itamar Gati. For the Turkish version of CDDQ Prof. Feride Bacanlı has been asked for permission (Bacanlı, 2008). The first page of the questionnaire involves general background information: gender, field of education (maritime vocational high school, other vocational high school and general high school), whether the participants have made an occupation decision and if the answer is yes, how much they are confident with their choice and also the participants have been asked to rate the overall severity of their difficulties in making a career decision (from 1='not severe at all' to 9='very severe'). The following two pages have included 34 statements, each representing a particular difficulty related to one of the 10 specific categories of difficulties. The participants have been asked to rate, on a 9-point scale, the degree to which the difficulty represent them (from 1='does not describe me' to 9='describes me well').

The previous studies show that the Turkish version questionnaire's overall Cronbach's internal consistency reliability estimate is .90 (n=2509) (Bacanlı, 2016) and .81(n=862) (Kesici, Hamarta ve Arslan, 2007). In the present study the questionnaire's overall Cronbach's internal consistency reliability estimate is .918 (n=500) ($r \geq 0,70$).

Procedure

The schools where the questionnaires will be applied have randomly been selected and we have tried to reach all of the 12th grade students on the applying date.

The questionnaires have been applied in four different schools on November, December 2018 and February 2019. Generally, students have responded the questions in 45 to 50 minutes.

Analyses

Totally 541 questionnaires have been collected, but 41 of them have been excluded in the analyses because of uncaredful responses and internal consistency questions score.

Skewness and kurtosis values of the variables have been used to determine whether the distribution of variables is parametric or not (Tabachnick and Fidell, 2013). ANOVA test has been used in the variable of field of education, Mann Whitney U test has been used in the variable of gender and T-test has been used to determine whether the students had made a career decision or not, and if the answer is 'Yes' to this question, the score on how much they are confident of their choice of occupation has been explored. At the end of the questionnaire 'how much they have difficulty in making a career decision' question has been asked. 'Cohen d' value used for measuring the effect size of significant differences in T-test. The effect size is small if cohen d value is smaller than 0.2, medium if cohen d value is between 0.2-0.5 and large if cohen d value is bigger than 0.8. In the ANOVA test the effect size (eta-squared- η^2) was small if cohen d value is smaller than 0.01, medium if cohen d value between 0.01-0.059 and large if cohen d is bigger than 0.138. In Mann Whitney U test 'r' value has been used for measuring the effect size. The effect size is small if r value is smaller than 0.1, medium if r value is between 0.1-0.3 and large if r value is bigger than 0.5 (Cohen, 1988).

Results

Career Decision-Making Difficulties level of students in 3 major categories, the 10 subcategories and the total score are presented in Table 2. The table reveals that the dysfunctional beliefs is the most compelling factors for the students in the stage of readiness and also among all subcategories, that they have also some indeciveness in career decision-making, that they have more information about the process and occupations than self and ways of obtaining information and that they have internal conflicts in making career decision.

Table 2. Means and Standart Deviation of CDDQ Factors

CDDQ Factors	Mean*	SD
LACK OF READINESS	4.7267	1.10930
• Lack of Motivation	3.4800	1.87871
• Indeciveness	5.1007	2.04956
• Dysfunctional Beliefs	5.5995	1.77010
LACK OF INFORMATION	3.7135	2.06492

• The Career Decison Making Process	3.9373	2.45114
• Self	3.4380	2.24555
• Occupations	3.9107	2.38800
• Ways of Obtaining Information	3.5680	2.34101
INCONSISTENT INFORMATION	3.6623	2.01389
• Unreliable Information	3.7080	2.28645
• Internal Conflicts	3.8320	2.09171
• External Conflicts	3.4470	2.44020
CDDQ Total Score	4.0342	1.48049

- 1 (Does nor describe me) – 9 (Describe me well) (Gati et al, 2000)
- CDDQ score, between 1,00-2,99 low score, between 3,00-4,99 medium score, between 5,00-9,00 high score (Gati, 2008).

Distribution of variables

The analyses of the skewness and kurtosis value of the field of education and gender variables as well as the methods used are indicated in Figure 1.

In the field of education variable skewness value is 0.480 and kurtosis value is -1.110. Since the kurtosis and skewness value are within the range of normal values (Tabachnick and Fidell, 2013), Anova test has been performed for variables with parametric distribution.

In the gender variable skewness value is 0.540 and kurtosis value is -1.715. Since the kurtosis and skewness value are not within the range of normal values (Tabachnick and Fidell, 2013), Mann Whitney U test has been performed for variables with non-parametric distribution.

Figure 1. Distribution of Variables and Analyses Methods

Analyses of field of education variable

All of the analyses (ANOVA) are shown in Table 3. In the lack of motivation maritime vocational high school students (3.6915 – medium) have more difficulties than general high school students (3.2257 – medium). In the dysfunctional beliefs, maritime vocational high school students (6.1949 – high) have more difficulties than general high school students (5.4502 – medium) and the other vocational high school students (5.4764-medium). The effect size of significant differences in the lack of motivation (e^2 : 0.015) and dysfunctional beliefs (e^2 : 0.026) are medium.

In the lack of information about the way of obtaining information, maritime vocational high school students (3.9734 – medium) have more difficulties than general high school students (3.2721 – medium). The effect size of this significant difference is medium (e^2 : 0.014).

In the unreliable information, maritime vocational high school students (4.1631 – medium) have more difficulties than general high school students (3.3673 – medium). In the external conflicts, maritime vocational high school students (3.9096 – medium) have more difficulties than general high school students (3.7917 – medium). The effect size of significant differences in unreliable information (e^2 : 0.030) and external conflicts (e^2 : 0.021) are medium.

In the total CDDQ score maritime vocational high school students (4.3623 – medium) have more difficulties than general high school students (3.8160 – medium).

The effect size of significant difference in CDDQ total score (e^2 : 0.021) is medium.

Analyses of gender variable

All of the analyses (Mann Whitney U) are shown in Table 3. In the lack of motivation, male students have more difficulties than female students. In the indeciveness, female students have more difficulties than male students. In the external conflicts, male students have more difficulties than female students. The effect size of significant differences in lack of motivation (r :-0.12), indeciveness (r :-0.16) and external conflicts (r :-0.10) are medium.

In career decision-making (CDDQ total score) female (247.62) and male (252.19) students have difficulties at the same degree.

Table 3. Significant Differences of the Variables

CDDQ Factors	VARIABLES	
	FIELD OF EDUCATION "Anova" Significant Differences*	GENDER "Mann Whitney-U" Significant Differences*
Lack of Motivation	F: 3,822– p: 0,023 Maritime Voc. High school (3.6915)* General High school (3.2257)* e^2 : 0.015	U:25054.500 p: 0,009 r : -0,12 Female : 228,43 Male : 263,46
Indeciveness	--	U:23671.500 p: 0,000 r : -0,16 Female : 280,05 Male: 233,1
Dysfunctional Beliefs	F: 6,693– p: 0,001 Maritime Voc. High school (6.1941)* Other Vocational High school (5.4764)* General High school (5.4502)* e^2 : 0.026	--
Lack of information about process	--	--
Lack of information about self	--	--
Lack of information about occupations	--	--
Lack of information about way of obtaining information	F: 3,673– p: 0,026 Maritime Voc. High school (3.9734)* General High school (3.2721)* e^2 : 0.014	--

Unreliable information	F: 5,076– p: 0,007 Maritime Voc. High school (4.1631)* General High school (3.3673)* e ² : 0.020	--	
Internal conflicts	--	--	
External conflicts	F: 7,830– p: 0,000 Maritime Voc. High school (3.9096)* Other Vocational High school (3.7917)* General High school (2.9801)* e ² : 0.030	U:25932.500 p: 0,037 r: -0,10	Female : 233,18 Male : 260,67
CDDQ Total Score	F: 5,283– p: 0,005 Maritime Voc. High school (4.3623)* General High school (3.8160)* e ² : 0.021	--	

*1 (Does not describe me) – 9 (Describe me well) (Gati et al, 2000)

The degree of difficulties according to the students' consideration of occupations

In this section the students have been asked "Have you considered what occupation you would like to choose?" and then the significant differences between making decision or not have been analyzed through T test. 348 students have declared that they considered their occupation and 152 students declared that they didn't consider.

Significant differences within these two groups have been determined in all major, subcategories and the total CDDQ score as shown in Table 4. The effect size of significant differences between the student considering or not considering their occupations is large in the lack of information about process, lack of information about own-self, lack of information about occupations, unreliable information, internal conflicts and the total CDDQ score factors. The effect size is medium in the lack of motivation, indecisiveness, dysfunctional beliefs, lack of information about way of obtaining information, external conflicts factors.

The students who have considered what occupations they would choose have fewer difficulties than the students who have not except dysfunctional beliefs.

Table 4. Results of T-test (Have you considered what occupation you would like to choose?)

CDDQ Factors	Answers	N	Mean*	SS	Cohen d	Sh	<i>t-test</i>	
							<i>t</i>	<i>p</i>
Lack of Motivation	Consider	348	3.0939	1.7616	-0.7042	.09444	-7.310	0.000
	Not Con- sider	152	4.3640	1.8443		.14959		
Indeciveness	Consider	348	4.8946	1.9609	-0.3274	.10512	-3.438	0.001
	Not Con- sider	152	5.5724	2.1732		.17628		
Dysfunctional Beliefs	Consider	348	5.8420	1.7435	0.4619	.09346	4.733	0.000
	Not Con- sider	152	5.0444	1.7097		.13868		
Lack of information about process	Consider	348	3.1973	2.1264	-1.0978	.11399	-	0.000
	Not Con- sider	152	5.6316	2.3046		.18693		
Lack of information about ownself	Consider	348	2.7284	1.8548	-1.1402	.09943	-	0.000
	Not Con- sider	152	5.0625	2.2227		.18029		
Lack of information about occupations	Consider	348	3.3151	2.1204	-0.8624	.11367	-	0.000
	Not Con- sider	152	5.2741	2.4132		.19574		
Lack of information about way of obtaining information	Consider	348	3.0460	2.1027	-0.7565	.11272	-	0.000
	Not Con- sider	152	4.7632	2.4256		.19675		
Unreliable information	Consider	348	3.1398	2.01966	0.8926	.10826	-	0.000
	Not Con- sider	152	5.0088	2.33568		.18945		
Internal Conflicts	Consider	348	3.3034	1.89794	0.8881	.10174	-	0.000
	Not Con- sider	152	5.0421	2.01565		.16349		
External Conflicts	Consider	348	2.9282	2.13871	0.7056	.11465	-	0.000
	Not Con- sider	152	4.6349	2.66941		.21652		
CDDQ Total Score	Consider	348	3.6019	1.28428	1.0475	.06884	-	0.000
	Not Con- sider	152	5.0239	1.42698		.11574		

*1 (Does not describe me) – 9 (Describe me well) (Gati et al, 2000)

The degree of confidence of the students who have consider of the occupation

The degree of confidence of 348 students who have declared that consideration of occupation has been examined. It has been determined that these students are confident with their choice of occupation. (7.1480 - high) (Table 5).

Table 5. Degree of Confidence of the Students Who Have Considered of the Occupations

Question	N	Mean*	SD
If so, to what extent are you confident of your choice?	348	7.1480	1.69938

*CDDQ score, between 1,00-2,99 low score, between 3,00-4,99 medium score, between 5,00-9,00 high score (Gati, 2008).

The degree of difficulty of the students in making career decision

At the end of the questionnaire the participants have been asked "How would you rate the degree of your difficulty in making a career decision?" and the degree of difficulties of students have been determined. It is determined that the degree of difficulty was 5.2860 -high (Table 6).

Table 6. Degree of Difficulty in Making a Career Decision

Question	N	Ort.*	SD
How would you rate the degree of your difficulty in making a career decision?	500	5.2860	2.64238

*CDDQ score, between 1,00-2,99 low score, between 3,00-4,99 medium score, between 5,00-9,00 high score (Gati, 2008).

Conclusion and disscussion

The students of maritime vocational high school have more difficulties than the students of general high school in lack of motivation, dysfunctional beliefs, lack of information about way of obtaining information, unreliable information, external conflicts and CDDQ total score. The prediction that maritime students may have more difficulties in making career decision has been proved substantially. The students who have graduated from secondary school have two possible choices for upper secondary education: vocational and general high school. Higher salary of marine occupation and

more employment opportunities (Nas and Çelik, 2012) are the most charming properties for these students who have narrow perspective about life. At this point it's thought that they don't consider the fact that marine occupation has physical and mental difficulties or whether it is suitable for their own interests, abilities and values. So when the students find out the disadvantages of marine occupation, they fall into dilemma about choice of occupation. It is also a loss for the national economy because of the higher cost of vocational high school education than general high school. The fact that maritime students have more difficulty in choosing an occupation than other high school students shows that there is a need for two-dimensional guidance and counseling. One of them is for the students who have graduated from secondary school and is interested in marine occupation. The other one is for the students of maritime vocational high school for solving their dilemma about choice of occupation.

Before the research, it was expected that vocational high school students would have fewer difficulty in career decision making than general high school would in career decision-making, but the result is the opposite to this expectation. Normally vocational high school students have their education in a special field and so they have made a career decision. This result points to the general dilemma of vocational high school students.

The most difficulty factor in CDDQ is dysfunctional belief and indeciveness. This is in parallel with the results of Karaca (2013) who has researched on university students. So it is normal and expected that high school students have some difficulties in career decision-making, because the university students in higher education have the same difficulties.

In the readiness stage, it has been concluded that the lack of motivation is the least difficult factor. The reason of this result is the research applied to the last (12th) grade students. So it is expected that the last grade students have motivation in making a career decision.

In the lack of information, the students have more difficulty in process and occupational diversity than self and way of obtaining information. Kuzgun (1982) points out that the individual's freedom about choice of occupation is a compelling factor in addition to occupational diversity. So the occupational diversity and process is a factor that naturally force the students. The students obtain information about occupations easily because of developing technology; but at this point, it is important which information is useful for each individual; so it points to the necessity of counseling and guidance again.

Despite Karaca (2013), Bacanlı (2012), Gati, Krausz and Osipow (1996) and Gati and Saka (2001)'s theoretical views that negative interventions of families, teachers,

friends and other important persons increase career decision-making difficulties, our research shows that the students have more internal conflicts than external about career decision-making. So it is thought that family, friends and teachers are less effective and students can make a career decision more easily in a free and non-oppressive environment. The fact that the students have more difficulty internal conflicts than external shows that they experience psychological dilemma about career decision-making.

There isn't a significant difference between female and male students' difficulty level in CDDQ total score. It is concluded that male students are less motivated and exposed to more intervention and girls have indeciveness in making a career decision. This result is parallel to the study conducted by Hijazi, Tatar and Gati (2004) only in terms of loss of motivation and indeciveness.

In our study, it has been concluded that the students who have declared that they had made a career decision would have less difficulty than the students declared that they had not yet made a career decision. This result is parallel to the researches of Bacanlı (2012), Bacanlı, Eşici ve Özünü (2013) and Tien (2005). Also this result supports the CDDQ reliability and validity in Turkish students.

The students have difficulties in making a career decision at medium level (4.0342) according to the research results. However, it has also been concluded that the students have high level difficulty (5.2860) according to the responses to the question "How would you rate the degree of your difficulty in making a career decision?" at the end of the questionnaire. The students who have declared that they had made a career decision have confidences their choice of occupation in high level (7.1480). Also, these students are confident in their choice of occupation and have less difficulty than the others.

A limitation of this research is that it has been carried out in İzmir/Turkey and involved only the last (12th) grade students. For the further research, all grades of high school in throughout all Turkey could be involved.

References

- Albion, P. (2000). Preliminary investigation of some influences on student teachers' self efficacy for teaching with computers. *Association for the Advancement of Computing in Education*, 76/4, 569-582.
- Albion, M. J. ve Fogarty, G. J. (2002). Factors influencing career decision making in adolescents and adult. *Journal of Career Assessment*, 10/1, 91-126.
- Akkoç, F. (2012). The relationship between the vocational indecision and career beliefs of high school students. *Buca Eğitim Fakültesi Dergisi*, 32, 49-70.

- Aytekin, A. (2005). *Socio-economic and cultural factors affecting to choose professions the case study of Isparta* [Master Thesis]. Süleyman Demirel University, Isparta.
- Bacanlı, F. (2012). Relationships between career decision making difficulties and irrational beliefs about career choice. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 4/37, 86-95.
- Bacanlı, F., Eşici, H. and Özünlü, M. B. (2013). An examination of career decision making difficulties according to several variables. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 5/40, 198-211.
- Bacanlı, F. (2016). Career decision-making difficulties of Turkish adolescents. *International Journal for Educational and Vocational Guidance*, 16/2, 233-250.
- Çakır, M. A. (2004). The development of career decision inventory. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi*, 37/2, 1-14.
- Fouad, N. A., et al.(2006). Need, awareness, and use of career services for college students. *Journal of Career Assessment*, 14/4, 407-420.
- Fouad, N., Cotter, W. E. and Kantamneni, N. (2009). The effectiveness of a careerdecision-making course. *Journal of Career Assessment*, 19/1, 21-34.
- Gati, I. & Saka, N. (2001). High school students' career-related decision-making difficulties. *Journal of Counseling and Development*, 79/3, 331-340.
- Gati, I., Krausz, M. & Osipow, S. H. (1996). A taxonomy of difficulties in career decision making. *Journal of Counseling Psychology*, 43/4, 510-526.
- Gati, I., Osipow, S. H., Krausz, M. & Saka, N. (2001). Validity of the career decision-making difficulties questionnaire: counselees' versus career counselors' perceptions. *Journal of Vocational Behavior*, 56/1, 99-113.
- Gati, I. (2008). Making better career decision. presented at the society of vocational psychology's preconference workshop. *International Counseling Psychology Conference*, Chicago, USA.
- Gati, I. (2011). *Abridged professional manual for the career decision-making difficulties questionnaire (CDDQ)*. March 2011 Version.
- Hijazi, Y., Tatar, M. & Gati, I. (2004). Career decision-making difficulties among Israeli and Palestinian Arab high school seniors. *Professional School Counseling*, 8/1, 64-72.
- Karaca, O. (2013). *Examining career decision-making difficulties of computer education & instructional technologies students according to different variables (sample of Dokuz Eylul and Ege Universities)* [Master Thesis]. Sakarya University, Sakarya.

- Kepçeoğlu, M. (2004). *Psychological counseling and guidance*, İstanbul: Alkım Press.
- Kesici, Ş., Hamarta, E. & Arslan, C. (2007). The validity and reliability study of the turkish version of the career decision making difficulties questionnaire. *Selçuk Üniversitesi Eğitim Fakültesi Dergisi*, 24, 329-342.
- Koçel, T. (2013). *Management administration*, İstanbul: Beta Press.
- Kuzgun, Y. (1982). *The effect of vocational guidance on recognizing occupation appropriate to their abilities and interests*. Ankara University, Press of Educational Sciences
- Kuzgun, Y. (2003). *Introduction to vocational guidance and counseling*, Ankara: Nobel Press.
- Mann, L., Harmoni, R. & Power, C. (1989). Adolescent decision making: the development of competence. *Journal of Adolescence*, 12/3, 265-278.
- Mau, W. C. (2001). Assessing career decision-making difficulties: a cross- cultural study. *Journal of Career Assessment*, 9, 353-364.
- Mau, W. C. (2004). Cultural dimensions of career decision-making difficulties. *The Career Development Quarterly*, 53/1, 67-77.
- Nas, S. & B. Celik (2012). The academician profiles of maritime higher education institutions in Turkey. *Journal of Marine Technology and Environment*, 2, 105-114.
- Tabachnick, B. G. & Fidell, L. S. (2013). *Using multivariate statistics*. Boston: Pearson.
- Tien, H. L. S. (2005). The validation of the career decision making difficulties scale in a Chinese culture. *Journal of Career Assessment*, 13/1, 114-127.
- Yorulmaz, M. (2018). The relationships between seafarers' job satisfaction, task and contextual performance. *Journal of ETA Maritime Science*, 7/1, 79-96.
- Zhou, D. & Santos, A. (2007). Career decision-making difficulties of british and chinese international university students. *British Journal of Guidance and Counselling*, 35/2, 219-235.

Extended Abstract

Choosing an occupation is one of the most important decisions made by the individual throughout his or her life. It generally is a very difficult and important decision to return. In Turkey, choice of occupation is concentrated in the transition from secondary to higher education. It is thought that the difficulty in this subject is experienced mostly by the 12th grade students who are educated at the level of secondary education. In particular, vocational high school students are expected to have fewer difficulty when they are trained to specialize in a particular occupation.

The aim of this study is to determine the differences in the career decision making difficulties between the 12th grade students of the maritime vocational high school and the other 12th grade students of the other high schools in İzmir. The data have been collected using the Career Decision Making Difficulties Questionnaire (CDDQ) prepared by Gati, Krauz and Osipow (1996) and adapted to Turkish by Bacanlı (2008) and Kesici, Hamarta and Arslan (2007) to be applied to high school students. The participants of the study are 500 high school students.

The result of the study reveals that maritime vocational high school students have more difficulties in choosing an occupation than the other high school students do. Besides the students who have participated in the study have medium difficulty level and female and male students have the same difficulty level in career decision making difficulties. It has been concluded that the students who have declared that they have made an occupational decision have fewer difficulty than the students who have declared that they have not made it and when the confidence level of the former to their choice of occupation increased, their career decision-making difficulties levels decreased.