

Teacher Education Students' Career Adaptability and Vocational Personality Types¹

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Abstract

The purpose of this research is to examine whether there are any differences in career adaptability of students according to gender, majors, perceived mother's attitudes, perceived father's attitudes and vocational personality types. The participants consisted of 822 students (596 female, 226 male) from a public university in the 2018-2019 academic year who volunteered to participate in the research. The research was designed according to the causal-comparative model. The data of the research was collected using the Career Adapt-Abilities Scale–Short Form and the Hacettepe Career Profile and Personal Information Form. The collected data were analyzed based on the t-test and one-way ANOVA using the Statistical Package for the Social Sciences (SPSS). This research showed that students' career adaptability levels did not present any statistically significant difference according to gender. However, students' career adaptability levels showed statistically significant differences according to majors, perceived parental attitudes, and vocational personality types. The findings were discussed in light of the related literature. Suggestions were provided for researchers, practitioners and policy makers.

Keywords: *Career adaptability, interests, perceived parental attitude, vocational personality types*

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Eđitim Fakóltesi Öğrencilerinin Kariyer Uyumları ve Mesleki Kişilik Tipleri

Öz

Bu araştırmanın amacı, eğitim fakóltesi öğrencilerinin kariyer uyumlarının cinsiyetleri, bölümleri, algıladıkları anne tutumları, algıladıkları baba tutumları ve mesleki kişilik tiplerine göre farklılaşıp farklılaşmadığının incelenmesidir. Araştırma grubu 2018 - 2019 eğitim ve öğretim yılında bir devlet üniversitesinde öğrenim gören ve araştırmaya katılmaya gönüllü olan 822 (596 kadın, 226 erkek) eğitim fakóltesi öğrencisinden oluşmaktadır. Araştırma nedensel karşılaştırma modeline göre tasarlanmıştır. Araştırmanın verilerinin toplanmasında Kariyer Uyum Yetenekleri Ölçeđi - Kısa Formu, Hacettepe Kariyer Profili ve Kişisel Bilgi Formu kullanılmıştır. Araştırma kapsamında toplanan veriler SPSS kullanılarak bağımsız örneklem t-testi ve tek yönlü varyans analizi (ANOVA) ile incelenmiştir. Araştırma sonucunda, öğrencilerin kariyer uyum düzeylerinin cinsiyetlerine göre istatistiksel olarak önemli düzeyde farklılık göstermediđi saptanmıştır. Bununla birlikte öğrencilerin kariyer uyum düzeylerinin bölümlerine, algıladıkları anne ve baba tutumları ile mesleki kişilik tiplerine göre istatistiksel olarak önemli düzeyde farklılık gösterdiđi bulunmuştur. Elde edilen bulgular, alan yazın ışığında tartışılmıştır. Araştırmacılara, uygulayıcılara ve politika yapıcılara yönelik olarak önerilerde bulunulmuştur.

Anahtar Sözcükler: *Algılanan anne ve baba tutumu, ilgiler, kariyer uyumu, mesleki kişilik tipleri*

INTRODUCTION

Career processes have changed with the economic and technological developments in the 21st century. This process differs from the previous century due to its dynamic, complex, uncertain and highly competitive structure. Permanent employment options over the past century have been replaced by short-term and temporary jobs (Savickas, 2012). In the 21st century, employees must be those who can use advanced technologies, adopt flexibility rather than stagnation, maintain employability, create their own opportunities, and participate in lifelong learning. Career approaches used in the 20th century emphasized stability and predictability in work life, but those approaches have lost their functions today. Today, regardless of how constant an individual's characteristics are, the environment continues

to change rapidly (Savickas et al., 2009). It is important for individuals to adapt to these changes and to cope effectively with unpredictable and varying tasks and expectations in the variable and challenging world of work (Savickas, 1997; Maggiori, Rossier, & Savickas, 2017; Hui, Yuen, & Chen, 2018).

Savickas (1997) has defined the concept of career adaptability based on these needs. Career adaptability is a psychosocial construct that includes resources to be prepared to cope with predictable career tasks and changes that are difficult to predict during the job preparation or recruitment phase (Savickas, 1997). Savickas (2005) defines the subscales of career adaptability as concern, control, curiosity, and confidence. Concern involves remembering the vocational background of the individual, thinking about his current vocational status, and predicting and planning his vocational future. Control enables the individual to take responsibility in shaping himself and his environment by using determination, discipline, and effort (Savickas & Porfeli, 2012). Curiosity is a subscale that addresses the individual's curiosity about career options and explains how to analyze and explore these options. Confidence expresses the self-efficacy belief that the individual can make fit choices about his own career and that the individual will be successful when acted in line with these choices (Savickas, 2005). These four basic subscales, which explain career adaptability, represent the resources and strategies that individuals use to manage the developmental tasks, transitions, and traumas they face when constructing their careers (Savickas, 2005).

People need career adaptabilities to overcome the changing expectations and tasks in work life over time (Maggiori, Rossier, & Savickas, 2017). Therefore, it is important to reveal the structures that explain career adaptability. Career adaptability forms an important structure in the career constructing process. Another structure in this process is vocational personality (Savickas, 2005). Savickas (2005) says that vocational personality development starts with family interaction and later takes shape with different social environments, especially school. Holland (1997) states that vocational personality types develop as a result of innate inheritance and later interaction with the social environment, especially the family. Holland (1997) divides personality types into six categories: realistic, investigative, artistic, social, enterprising, and conventional. According to Savickas (2005), Holland's (1997) theory of personality types is useful in examining the vocational personality types of individuals and for

use in vocational assessment. Thus, knowing the vocational personality types seems important in understanding the career adaptability levels of individuals.

In previous studies, career adaptability was examined with many career related variables such as jobs, career and life satisfaction, perceived social support, gender, self-esteem, personality traits, career indecision, and performance. These studies have shown that career adaptability significantly predicts job satisfaction (Zacher & Griffin, 2015), career satisfaction (Zacher, 2015), and life satisfaction (Bölükbaşı, 2017). In addition, these studies show that perceived social support (Han & Rojewski, 2015; Karacan-Özdemir & Yerin-Güneri, 2017), career indecision, and perceptions about gender roles (Yiğit, 2018) significantly predict career adaptability. In addition, career adaptability has a significant positive relationship with self-esteem (Ataç, Dirik, & Trigger, 2018; Hui, Yuen, & Chen, 2018) and different results are reported when examined by gender (Coetzee & Harry, 2015; Han & Rojewski, 2015; Erus & Zeren, 2017; Eryılmaz & Kara, 2018; Kahya & Ceylan, 2018). In studies that examine the relation between career adaptability and personality, personality is mostly examined in the context of the five-factor model of personality and these studies show that personality is significantly related to career adaptability (Norris, 2016; Eryılmaz & Kara, 2017). In this study, personality is handled in the context of Holland's personality types theory (Holland, 1997).

Global changes in the economy and technology affect education as well as many other fields. In the past century, while education systems based mostly on the positive philosophy and behavioral education approaches were implemented, postmodern philosophy and constructivist approach have now begun to come to the fore. With these changes, the characteristics required for teaching and the profession itself have also changed. People are expected to have 21st century skills today, and teachers are expected to teach these skills during the education process. Teachers and teacher candidates who are expected to teach these skills must obtain these skills and use them in the classroom (Gelmez-Burakgazi et al., 2019).

Thus, the tasks and expectations that teachers must acquire are different and have changed significantly from the previous century. Since this change requires teachers to adapt to rapidly changing tasks and expectations, it is important to understand and increase the career adaptability of the teacher education students. In conclusion, the results of this research are

expected to guide the studies aimed at improving the career adaptability of the teacher education students. Based on these reasons, we aim to examine teacher education students' career adaptability in relation to gender, majors, perceived mother's attitudes, perceived father's attitudes and vocational personality types.

METHOD

Research Design

In this research, a causal-comparative model (Fraenkel, Wallen, & Hyun, 2012) was used to examine whether there are any differences in career adaptability of teacher education students according to gender, majors, perceived mothers' attitudes, perceived fathers' attitudes, and vocational personality types.

Participants

The current research included 822 students studying various majors in a school of education at a state university in the 2018-2019 academic year who volunteered to participate in the research. Participants were identified using the convenience sampling method (Fraenkel, Wallen, & Hyun, 2012). The ages of the students participating in the research were between 17 and 35 years old ($\bar{x} = 20.24$, $SS = 1.78$). Other demographic information of the participants is presented in Table 1.

Table 1. Demographic information of the participants

Variables		n	%
Gender	Female	596	72.5
	Male	226	27.5
University Grade	Freshman	199	24.2
	Sophomore	284	34.5
	Junior	175	21.3
	Senior	164	20.0
Major	Guidance and Psychological Counseling	160	19.5
	Science Education	83	10.1
	Social Sciences Education	71	8.6
	English Language Education	110	13.4
	Turkish Education	112	13.6
	Early Childhood Education	126	15.3
	Primary Education	106	12.9
	Mathematics Education	54	6.6

As seen in Table 1, 596 (72.5%) of the participants identified as female and 226 (27.5%) identified as male. Reported university grades of the participants were freshman ($n = 199$, 24.2%), sophomore ($n = 284$, 34.5%), junior ($n = 175$, 21.3%), and senior ($n = 164$, 20.0%). Majors of the participants were reported as Guidance and Psychological Counseling ($n = 160$, 19.5%), Science Education ($n = 83$, 10.1%), Social Sciences Education ($n = 71$, 8.6%), English Language Education ($n = 110$, 13.4%), Turkish Education ($n = 112$, 13.6%), Early Childhood Education ($n = 126$, 15.3%), Primary Education ($n = 106$, 12.9%), and Mathematics Education ($n = 54$, 6.6%).

Instruments

Career adaptability. The Career Adapt-Abilities Scale–Short Form (Maggiori, Rossier, & Savickas, 2017) was used to assess career adaptability. It was adapted to Turkish by Işık et al. (2018). The scale, which consists of 12 items, has four subscales: concern, control, curiosity, and confidence. Higher scores indicate greater levels of career adaptability, and items used a 5-point Likert scale ranging from 1 (*not strong*) to 5 (*strongest*). As a result of the confirmatory factor analysis applied to the study group with undergraduate students, the model was found to fit very well ($\chi^2 / df = 2.13$, GFI = .950, CFI = .966, TLI = .955, RMSEA = .059). Cronbach alpha internal consistency reliability coefficient of the scale ranged from .76 to .90 for the undergraduate sample. Test-retest reliability coefficients were calculated as .66 for concern, .62 for control, .68 for curiosity, .64 for confidence, and .82 for the total scale (Işık et al., 2018). In the current study, the estimated Cronbach alpha internal consistency reliability coefficient of the total scale was .82.

Vocational personality type. The Hacettepe Career Profile (Özer, Yılmaz, Osmanlı, & Yiğit, 2015) was used to assess Holland's vocational personality type. The scale consisted of 42 adjectives rated on a 6-point rating scale. The Cronbach alfa internal consistency reliability coefficients for the subscales of the measurement instrument were found to be .79 for realistic, .76 for investigative, .73 for artistic, .86 for social, .80 for enterprising, and .80 for conventional. Within the scope of the criterion validity, the fit between Hacettepe Career Profile results and major preferences was examined by 77 of the participants who attended the Hacettepe University Promotion Days in 2015, using the "C index." It showed that in the first choice of 49 participants (63.6%) and 63 participants (% 81.8), at least one of the first three choices was classified as correct (person - major fit level medium / high) by Hacettepe Career Profile (Özer, Yılmaz, Osmanlı, & Yiğit, 2015). In the current study, the estimated Cronbach alpha internal

consistency scores were $\alpha = .78$ (realistic), $\alpha = .67$ (investigative), $\alpha = .73$ (artistic), $\alpha = .87$ (social), $\alpha = .72$ (enterprising), $\alpha = .80$ (conventional). The vocational personality types of the participants were determined as the subscale that they gave the highest score in Hacettepe Career Profile.

Demographic variables and perceived parental attitudes. In this research, a personal information form prepared by the researchers was used to determine the demographic characteristics and perceived parental attitudes of the participants. Participants indicated their age (in years), gender (1 = female, 2 = male), university grade (1 = freshman, 2 = sophomore, 3 = junior, 4 = senior); major (1 = Guidance and Psychological Counseling, 2 = Science Education, 3 = Social Sciences Education, 4 = English Language Education, 5 = Turkish Education, 6 = Early Childhood Education, 7 = Primary Education, 8 = Mathematics Education); and perceived parental attitudes (1 = authoritative, 2 = permissive, 3 = protective, 4 = authoritarian, 5 = neglectful, 6 = inconsistent). In accordance with the relevant literature (Baumrind, 1991; Yavuzer, 2019), the categories of perceived parental attitudes were determined.

Procedure

Research data were obtained from students who volunteered to participate in the study in the fall semester of the 2018-2019 academic year. Before the data were collected, participants were informed about the purpose and importance of the research. In addition, participants were given privacy explanations and instructions on how to respond to the scales. All of the information was completed using paper and pencil, and the questionnaire took approximately 15 minutes to complete.

Data Analysis

Before analyzing the data, statistical checks were made to test whether the data met the parametric statistical assumptions. First of all, Mahalanobis distance was used to determine extreme values in the data, as a result of which 14 entries were excluded from the research. Therefore, data obtained from 808 out of 822 students were included in the analysis. The normality of the data was evaluated with kurtosis and skewness values. When these values are between -1 and +1, it is assumed that the data shows normal distribution (Çokluk, Şekercioğlu & Büyüköztürk, 2010). The kurtosis values of all observed variables in the model are between -.09 and .29, and the skewness values between -.19 and -.33. Since the kurtosis and skewness values of all observed variables in the model are within the limits of -1 and +1, the data provide the normal distribution assumption.

Next, the homogeneity of variances was examined using the Levene test.

As the Levene test results were not statistically significant ($p > .05$), it was determined that the assumption of homogeneity of variances was provided (Field & Hole, 2019). After these measures were taken, descriptive statistics, t-test, one-way variance analysis (ANOVA) and Bonferroni post hoc test were used in the analysis of the data. The SPSS 22.0 package program was used for statistical analysis.

RESULTS

The t-test was conducted to examine the students' career adaptability levels according to gender and the findings are presented in Table 2.

Table 2. T-Test results regarding career adaptability levels according to gender

Gender	n	\bar{x}	SD	df	t	p
1. Female	585	47.76	5.72	806	.04	.966
2. Male	223	47.74	5.74			

According to Table 2, students' career adaptability levels did not show any significant difference according to gender, $t(806) = .04, p > .05$.

One-way analysis of variance (ANOVA) was conducted to examine the students' career adaptability levels according to their majors and the findings are presented in Table 3.

Table 3. ANOVA results regarding career adaptability levels according to major

Major	n	\bar{x}	SD	F	p	η^2	Group Differences
1. Guidance and Psychological Counseling	158	47.17	5.05	2.740	.008**	.023	1,6 < 7
2. Science Education	79	47.19	4.94				
3. Social Sciences Education	69	47.45	5.60				
4. Primary Education	105	48.01	5.65				
5. English Language Education	108	47.64	6.06				
6. Turkish Education	110	47.09	6.28				
7. Early Childhood Education	126	49.68	5.85				
8. Mathematics Education	53	47.76	6.08				

** $p < .01$

According to Table 3, students' career adaptability levels show significant difference according to majors, $F_{(7, 800)} = 2.740$, $p < .01$. According to the results of Bonferroni test, it was found that the early childhood education students' career adaptability levels ($\bar{x} = 49.68$) were significantly higher than those of the students in Turkish education and guidance and psychological counseling. The eta square value ($\eta^2 = 0.023$) in this analysis shows that the majors of education students have little more than a small effect on the level of career adaptability (Cohen, 1988).

One-way analysis of variance (ANOVA) was conducted to examine the students' career adaptability levels according to perceived mothers' attitudes and the findings are presented in Table 4.

Table 4. ANOVA results regarding career adaptability levels according to perceived mothers' attitudes

Perceived Mothers' Attitudes	n	\bar{x}	SD	F	p	η^2	Group Differences
1. Authoritative	128	49.24	5.36	7.912	.000***	.021	2, 3 < 1
2. Protective	459	47.75	5.93				
3. Authoritarian and other	169	46.60	5.14				

*** $p < .001$

According to Table 4, students' career adaptability levels show significant differences according to perceived mothers' attitudes, $F_{(2, 753)} = 7.912$, $p < .001$. According to the results of the Bonferroni test, it was found that career adaptability levels of students who perceived their mothers as authoritative ($\bar{x} = 49.24$) were higher than those students who perceived their mothers as protective ($\bar{x} = 47.75$), or authoritarian and other ($\bar{x} = 46.60$). The eta square value ($\eta^2 = 0.021$) in this analysis shows that the perceived mothers' attitudes of education students had little more than a small effect on the level of career adaptability (Cohen, 1988).

One-way analysis of variance (ANOVA) was conducted to examine the students' career adaptability levels according to perceived fathers' attitudes and the findings are presented in Table 5.

Table 5. ANOVA results regarding career adaptability levels according to perceived fathers' attitudes

Perceived Fathers' Attitudes	n	\bar{x}	SD	F	p	η^2	Group Differences
1. Authoritative	123	49.08	5.42	4.148	.016*	.011	2, 3 < 1
2. Protective	335	47.59	5.68				
3. Authoritarian and other	303	47.36	5.84				

* $p < .05$

According to Table 5, students' career adaptability levels show significant difference according to perceived fathers' attitudes, $F_{(2, 758)} = 4.148, p < .05$. According to the results of the Bonferroni test, it was found that career adaptability levels of students who perceived their fathers as authoritative ($\bar{x} = 49.08$) higher than students who perceived their fathers as protective ($\bar{x} = 47.59$), or authoritarian and other ($\bar{x} = 47.36$). The eta square value ($\eta^2 = 0.011$) in this analysis shows that the perceived father's attitudes of education students have only a small effect on the level of career adaptability (Cohen, 1988).

One-way analysis of variance (ANOVA) was conducted to examine the students' career adaptability levels according to vocational personality types and the findings are presented in Table 6.

Table 6. ANOVA results regarding career adaptability levels according to vocational personality types

Vocational Personality Types	n	\bar{x}	SD	F	p	η^2	Group Differences
1. Realistic	49	46.27	5.19	4.162	.001**	.025	1, 2, 4 < 5
2. Investigative	77	47.07	5.69				
3. Artistic	79	49.06	5.20				
4. Social	405	47.35	5.68				
5. Enterprising	63	49.96	5.71				
6. Conventional	135	48.11	6.00				

** $p < .01$

According to Table 6, students' career adaptability levels show significant difference according to vocational personality types, $F_{(5, 802)} = 4.162$, $p < .01$. According to the results of Bonferroni test, it was found that career adaptability levels of students who are enterprising ($\bar{x} = 49.96$) were higher than students who were realistic ($\bar{x} = 46.27$), investigative ($\bar{x} = 47.07$), or social ($\bar{x} = 47.35$). The eta square value ($\eta^2 = 0.025$) in this analysis shows that vocational personality of education students have only a small effect on the level of career adaptability (Cohen, 1988).

DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

This study examined whether there are any differences in career adaptability of teacher education students according to gender, majors, perceived mother's attitudes, perceived father's attitudes and vocational personality types. One of the findings of the study is that students' career adaptability levels did not show any statistically significant difference according to gender. In the literature, there are studies supporting (Erus & Zeren, 2017; Ghosh & Fouad, 2017) and not supporting (Coetzee & Harry, 2015; Han & Rojewski, 2015; Eryılmaz & Kara, 2018; Kahya & Ceylan, 2018) this finding. The developmental guidance approach emphasizes that occupations are not classified according to gender and that there are no gender differences for occupations. According to the developmental guidance approach, since biases related to gender are thought to be restrictive for individuals in the career process, they focus on the personality traits, interests, and abilities of the individuals. Therefore, this finding of the research is thought to be due to the fact that males and females have similar career adaptability resources.

Another finding obtained in the research is that the level of career adaptability among students shows a statistically significant difference according to majors, and career adaptability levels of early childhood education students are significantly higher than those of the students in Turkish education and guidance and psychological counseling. This finding is similar to the findings of another research in which career adaptability was examined according to the majors (Aktaş & Şahin, 2019; Gül, Maksüdünov, Yamaltdinova, & Abdildaev, 2019; Kahya & Ceylan, 2018). Unlike the other majors, it is seen that the early childhood education receives students studying in the field since high school through vertical transfer. It can be said that these students implemented their vocational self-concept at an early age and, therefore, structured their careers more

effectively and developed their career adaptability resources.

In this research, it was found that there was a statistically significant difference in the level of career adaptability among the teacher education students according to the perceived mother's and father's attitudes, and that the level of career adaptability among the students who perceived their mothers and fathers as authoritative was significantly higher than those who perceived other attitudes. According to Baumrind (1991), parents who adopt a democratic attitude provide their children with freedom within the limits of logical rules, thus supporting their children's autonomy. Previous studies show that individuals who perceive democratic parental attitudes have high levels of psychosocial development, academic competence (Lamborn, Mounts, Steinberg, & Dornbusch, 1991), and academic achievement levels (Erdoğan, 2007). In addition, while there is a positive relationship between perceived authoritative parental attitude and career knowledge, concern, curiosity, time perspective about the future, career planning (Kutlu & Apaydın, 2019), logical and independent decision making, there is a negative relationship between authoritative parental attitude and being indecisive. Thus, this is similar to the findings of the other research (Erdoğan, 2007; Kutlu & Apaydın, 2019; Lamborn, Mounts, Steinberg, & Dornbusch, 1991), which indicate the positive contribution of perceived authoritative parental attitudes to students' career development processes. According to these findings, authoritative parental attitudes support students' career development processes.

The last finding in this research involves the level of career adaptability among the students according to vocational personality types. The career adaptability levels of the students who are enterprising are significantly higher than students who realistic, investigative, and social. According to Holland's (1997) theory, social personality type is the best personality fit for the major of the teacher education students. While it is expected that teacher education students with social personality type would have a higher career adaptability level, in this study, it is thought that higher levels of career adaptability of students with enterprising personality type are related to the characteristics required by the dynamic, complex, uncertain, and highly competitive structure of the 21st century world of work. Entrepreneurship is seen as an important factor in overcoming the problems encountered in the variable business world (Woo, 2018). Enterprising people are aggressive individuals with effective communication skills and high leadership and

persuasion skills (Holland, 1997). These characteristics of enterprising people are thought to be effective in higher levels of career adaptability compared to other types. This finding is similar to previous research in which there is a significant positive relationship between intrapreneurship and career adaptability (Woo, 2018).

Based on the findings of this research, recommendations can be listed as follows. In similar studies, while examining students' career adaptability according to majors, different variables such as high school types and fields of graduation may be taken into consideration. In addition, the authoritative attitude that students perceive from their mothers and fathers in their career development processes is important. In this context, it can be seen that it would be useful for counselors to stress the benefits of authoritative attitudes of parents.

It has been emphasized that developing the individual's entrepreneurship is one of the roles expected from career counselors in line with the new paradigms (Özyürek, 2016; Yeşilyaprak, 2016). According to Özyürek (2016), vocational personality types that are conceptualized as interests are structures that can be discovered and learned with new experiences. In this context, it is recommended that work should be carried out for the students to discover their vocational personality types and work for increasing career adaptability should be made by examining the vocational personality types of the students. In addition, higher education institutions have a responsibility to help individuals better prepare for joining the national workforce and improve their employability (Heckman, 2000). For this purpose, a Career Planning course offered to freshmen of universities in Turkey is suggested (Cumhurbaşkanlığı İnsan Kaynakları Ofisi [Presidency of the Republic of Turkey Human Resources Office], 2019). Such a course can contribute to improving the career adaptability of the students by including the content for students to develop their enterprising characteristics. As a necessity of the 21st century, we can contribute to improving the career adaptability of teachers and counselors by reviewing teacher and counseling training policies, providing opportunities for students to develop their enterprising characteristics, and opening elective courses to discover students' different characteristics.

This study has a number of limitations that should be considered when interpreting the results and designing future research. First, the research data was collected at only one university in Turkey and participants were

identified using the convenience sampling method. Therefore, future studies are needed when generalizing from such data. Second, participants were not balanced across perceived parental attitudes. Therefore, some perceived parental attitude subgroups were combined for comparison. Future research is needed to examine career adaptability with a more balanced sample across perceived parental attitudes. Finally, perceived mothers' attitudes and perceived fathers' attitudes were measured through one question each. Perceived parental attitudes can be measured through a scale in future research.

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