

# Chance in Career Choice: A Rank-Ordering Study

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## Abstract

This study attempts to investigate the position of chance among the factors affecting the career choices of university students according to gender and willingness. For this purpose, the present study based on rank-order judgments of participants was conducted. In present study, the participants (N = 417) ranked the given ten factors in terms of their perceived impact on university department choices. Further, the participants were asked to describe the chance events they experienced related to career choice. The results showed that 28% of the participants stated that chance plays a role in their career choice. Among the factors affecting career choices, chance ranked seventh in the total sample, sixth in females, eighth in males, eighth in those who chose the department willingly, and third in those who chose the department unwillingly by the degree of perceived influence. Overall, these results indicate that chance events were prioritized over others such as family demands, friend opinions and media effect. The findings were discussed and implications for career counselling were presented.

**Keywords:** Career Choice, Chance, Unplanned Events, University Students, Ranking.

## Öz

Bu çalışma, üniversite öğrencilerinin kariyer seçimlerini etkileyen faktörler arasında şans olaylarının yerini cinsiyet ve eğitim aldıkları bölümü isteyerek seçme durumuna göre ortaya koymayı amaçlamaktadır. Bu amaçla, katılımcıların sıralama yargılarına dayalı olarak bir araştırma yürütülmüştür. Bu çalışmada katılımcılar (N = 417) verilen on faktörü üniversite bölüm tercihlerine etki etmeleri bakımından, kendi algılarına doğrultusunda sıralamıştır. Ayrıca buna ek olarak katılımcılardan bu kariyer seçimleri sırasında deneyimledikleri şans olaylarını belirtmeleri istenmiştir. Araştırmanın bulguları, katılımcıların %28'inin bölüm tercihleri sırasında çeşitli şans olaylarının kararlarında rol oynadığını belirttiğini göstermiştir. Şans olaylarının algılanan etkisi, tüm katılımcılarda yedinci sırada, kadınlarda altıncı sırada ve erkeklerde sekizinci sırada yer almıştır. Bölümü isteyerek seçenlerde sekizinci ve istemeyerek seçenlerde ise üçüncü sırada kariyer seçimini etkileyen faktör olarak algılanmıştır. Bu sonuçlar katılımcıların ailenin istekleri, arkadaş görüşleri ve medya etkisine göre şans olaylarını kariyer seçimini etkilemede daha öncelikli olarak algıladığını göstermektedir. İlgili bulgular literatürle birlikte tartışılıp kariyer psikolojik danışmanlığı için sonuç, yorum ve çıkarımlar sunulmuştur.

**Anahtar Kelimeler:** Kariyer Seçimi, Şans, Planlanmamış Olaylar, Üniversite Öğrencileri, Sıralama.

July 2022

Volume:19

Issue:48

DOI: 10.26466//opusjsr.1110507

## Citation:

Görgülü, Z. and Bozgeyikli, H. (2022). Chance in career choice: A rank-ordering study. *OPUS–Journal of Society Research*, 19(48), 573-587.

## Introduction

Working at a job has always remained important from the assignment of duties in a small community to today's professional careers. To date, various theories have strived to understand and clarify issues related to career. Careers of individuals were examined, and interventions were applied with a deterministic purpose such as predicting, preparing, and planning. However, some researchers realized that deterministic ways do not always lead to the expected results. (Bright et al., 2005a; Hart et al., 1971; Krumboltz, 1998; Mitchell et al., 1999; Pryor, 2010). Unexpected or unplanned events and chances occur without being related to the career preparations and plans (Hirschi, 2010). While many studies revealed that individuals experience chance at different stages of their careers (Betsworth & Hansen, 1996; Bright et al., 2005a, 2005b; Hirschi, 2010, Kim et al., 2019; Korkut-Owen, 2018; Magnuson et al., 2003; Ulas-Kilic et al., 2020; Regan & Graham, 2018), our knowledge about chance events is still limited. For this reason, this study aims to investigate the position of chance in career choice, which is an important career decision for individuals.

## Career Choice

Career choice is a broad concept that includes intentions, plans, and desires, and also a measure of individuals' career decisiveness, career behaviours, and career clarity (Whiston, & James, 2013). Satisfaction with career choice is related to the sense of responsibility towards work (Eren, 2015), reducing fault and unprofessional behaviour at work (Furst, 2018), job satisfaction (Westbrook, & Nordholm, 1983), and lessening work-related burnout (Liang, & Hsieh, 2005) in the research. Therefore, career choices are not only related to determining the future career, but also an important concept associated with psychological, social, and economic conditions.

Career choices begin with childhood. In a family, the child constructs the self, interests and values while doing the tasks assigned to them, playing games, and observing the role models around them (Savickas, 2013). Many research and theories pay attention to interests (Ackerman, &

Beier, 2003; Nyamwange, 2016), personality (Garcia-Sedeño et al., 2009), and values (Choi, 2017). In this respect, Holland (1996) states that matching personality traits with occupations is an important predictor of job satisfaction. Similarly, Dawis and Lofquist (1976) described the congruence of individuals' characteristics with their work environment as the main factor in choosing a suitable career. Therefore, internal factors such as interests, personality and values are related to career choices.

The environment in which individuals live are also associated with their career choices. The environment includes factors such as socioeconomic level, education systems, school characteristics, family and society, job features and work experience (Kirkpatrick-Johnson, & Mortimer, 2002). In recent studies, family support and the characteristics of the family (Auyeung, & Sands, 1997; Sasson, 2021; Rocker-Yoel, & Dori, 2022), the advices of the teacher and others (Gomez et al., 2021; Siddiky, & Akter, 2021), job popularity (Lascano, 2021; Papathanassis, 2021), job opportunities (Abonyi et al., 2021; Bölükbaş, 2018; Nalbantoğlu-Yılmaz, 2017; Phan, & Bae, 2021), economic problems (Morales & Jacobson, 2020), and media effect (Saleem et al., 2014) were discussed regarding their impact on career choice. These studies showed that to understand the career choices, not only the individual but also the the environment and context should be considered. Consistently, Lent (2013) points out that the environment chooses the people, too.

Individual and environmental factors such as families, friends, teachers and psychological counsellors, interests and abilities, economic conditions, prestige, and job opportunities are seen to be related to the careers. University Entrance Exams in countries just as Turkey, South Korea, Japan, Bulgaria, Brazil, and China, also, were found influential in students' career choices (Nalbantoğlu-Yılmaz, 2017; Sarıkaya, & Khorshid, 2009). Therefore, career choice is not only a decision regarding interests, abilities, and environments factors, but the exam result is also considered by the students as a notable factor.

Both individual and environmental factors are foreseeable in career choice in some respect. This may provide individuals with an unrealistic sense of control. However, life has unpredictable construction and decisions like career choice are not always made in a planned and reasonable way (Krumboltz, 1998; Pryor, and Bright, 2003; Pryor, 2010). Unexpected and chance events are influential in career choices.

### Chance Events

The unplanned and unexpected events, happenstance, serendipity, and chances can occur throughout making career decisions (Bright et al., 2005a, 2005b; Hu et al., 2015; Kim et al., 2017; Ulas-Kilic et al., 2020; Regan, & Carroll, 2017). Krumboltz's (2009) Planned happenstance theory and Pryor and Bright's (2003) Chaos Theory are pioneering studies intended to explain chance events in career. Krumboltz (2009) claimed that the future is unpredictable and emphasized that the impact of unexpected events may be considerable. Besides, Bright et al. (2005a, 2005b) report that unexpected events can be more influential in career choices than is thought. These events, which is described as chance in chaos theory, originate from the complexity of human lives and indicate the impossibility of predicting the future entirely by doing plans. Plans and thoughts about the future can change by accidents, diseases, and misfortunes (Pryor, & Bright, 2003, 2011, 2014). Therefore, it is seen that human's capacity of making their own decision is limited due to chance and unplanned events.

The structure of chance events is specified in a limited number of studies and some dimensions are observed commonly. For example, Betsworth and Hansen (1996) identified eleven dimensions of serendipity. These categories comprised professional or personal connections, unexpected advancement, being in the right place at the right time, influences from family and others, prior experiences, military experiences, unexpected exposures, and obstacles, etc. Correspondingly, Bright et al. (2005a, 2005b) labelled professional or personal connections, prior experiences, barriers and obstacles, exposure to an event or activity without the intention of it, as chance events. In

addition, accidents or health problem, positive and negative work experiences are also defined as chance events. Other studies based on participant opinions about chance report similar results (Kim et al., 2019; Ulas-Kilic et al., 2020; Regan & Graham, 2018). In these studies, chance events frequently reported were personal or business relationship.

In collectivist cultures, environmental control in career choices may put individuals in a passive position regarding their careers, causing them to identify even controllable and predictable events as chance and beyond their control (Ulas-Kilic et al., 2020). However, in a study conducted in Turkey, a country that has both individualistic and collectivist cultures, only 6% of university students report that chance was effective in their career choices. (Korkut-Owen et al., 2012). This rate is much lower than the other studies (Bright et al., 2005a; Hirschi, 2010; Kindsiko, & Baruch, 2019). In this regard, it seems that more research is needed to examine the chance, especially in career choices.

### The Current Study

The present study, adopting a quantitative paradigm, was conducted because chance events in career choice are mostly researched qualitatively, and there is a need for studies that show the place of chance among other career choice factors. Therefore, in this study, we aim to examine the rank of chance impact among other factors such as interest, exam performance, job opportunity, prestige, family demands, teacher assistance and so on. For this purpose, the scaling method with the law of ranking judgments, which can be defined as a robust in terms of internal consistency (Guilford, 1954; Turgut, & Baykul, 1992), was used. We expect that this study can contribute to the literature regarding chance events and provide insight for future career interventions. Accordingly, the following research questions were presented.

1. How do university students rank factors impacting their career choice?
2. How do female university students rank factors impacting their career choice?
3. How do male university students rank factors impacting their career choice?

4. How do university students which selected their department willingly rank factors impacting their career choice?
5. How do university students which selected their department unwillingly rank factors impacting their career choice?
6. What is the ranking of chance events among the factors impacting the career choices of university students?

## Method

### Research Design

The rank scaling model was used based on Thurstone's law of comparative judgments in present study (Price, 2021; Thurstone, 1931;). In this model, the participants are asked to rank the given items from the highest to the lowest according to a certain feature. Therefore, this model provided the approach of centring on the preferences of the participants. Many studies used the scaling models (e.g., Bozgeyikli et al. 2016; Koçak, & Çokluk-Bökeoğlu, 2021; Özbaşı, 2019; Özdemir, 2021).

### The Sample

The convenient sample was comprised of 417 (68.04% females, 31.96% males) Turkish university students in various faculties pursuing their education through the 2021-2022 academic year and new graduates. The participants voluntarily participated in the research by filling out the online form shared on social media. 594 participants began to fill out the form but 417 of those completed it. Accordingly, the completion rate was 70.54%. Table 1 show other descriptive properties of the sample.

**Table 1. Demographic properties**

Demographics		Female	Male	Total
		f (%)	f (%)	f (%)
Grade	preparatory	14 (5%)	4 (3%)	18 (4%)
	1 <sup>st</sup>	108 (41%)	53 (44%)	180 (43%)
	2 <sup>nd</sup>	73 (28%)	30 (24%)	108 (26%)
	3 <sup>th</sup>	35 (13%)	18 (15%)	61 (15%)
	4 <sup>th</sup>	20 (8%)	9 (7%)	29 (7%)
	graduate	12 (5%)	9 (7%)	21 (5%)
Students who made career choice willingly		214 (82%)	108 (88%)	352 (84%)
Students who made career choice unwillingly		48 (18%)	15 (12%)	65 (16%)
Students who experience chance events in career choice		79 (30%)	29 (24%)	117 (28%)
Students who do not experience chance events in career choice		183 (70%)	94 (76%)	300 (72%)

## Measures

**Personal information form:** We developed the form to obtain the participants' information including gender, grade, university, and whether they chose the department willingly. In addition, there is an open-ended question to examine how they perceive chance events. Thus, secondary data were collected to support the research.

**Rank-Order Judgments on career choice form:** We developed a form consisting of ten factors impacting career choice. The participants were asked to rank ten factors from 1 to 10 according to the degree of perceived impact on their career choice. It was allowed to place only one factor in each rank to avoid overlap. The strength of this approach is that it forces participants to make comparisons from the most important factor to the least important and in this way, it increases the validity of this method (Guilford, 1954).

Pryor and Bright's (2011) Chaos Theory and related literature (e.g., Ackerman, & Beier, 2003; Bölükbaş, 2018; Bright et al., 2005a, 2005b; Gomez et al., 2021; Morales, & Jacobson, 2020; Nalbantoğlu-Yılmaz, 2017; Nyamwange, 2016; Saleem et al., 2014; Sarıkaya, & Khorshid, 2009; Sasson, 2021; Rucker-Yoel, & Dori, 2022) were used to compose the form. Accordingly, the form consists of the following ten factors: 1) Family demand, 2) Friends' opinion, 3) Teacher / counsellor' assistance, 4) Chance / unplanned conditions, 5) Interest / ability congruence, 6) Prestige 7) Job opportunity, 8) Entrance exam

performance, 9) Economic conditions, 10) Media effect (e.g., social media, internet).

**Data analysis**

We followed Guilford's (1954) suggestions for data analysis regarding the rank-order judgment scaling. This method is based on judge to observers' preferences with reference to each other. Observers are asked to clearly distinguish all stimuli from one another, and the scale value is calculated by comparison of stimuli rank-order frequencies (Guilford, 1954). Thus, internal consistency is assumed to enforce with this method.

Among the rank-order methods, The Pair-comparison Treatment of Complete Ranks (Guilford, 1954, p. 183) was used. The Pair-comparison method was used because there were enough judgments to obtain the scale value and there is no overlap in the ranks. In this regard, the frequency matrix of the rank order was formed firstly. A proportion matrix was composed according to how many times each stimulus is greater than the other stimuli. The following formula (Guilford, 1954) and frequency matrix were used for the pairwise comparison of factors.

$$\frac{\sum_{i=1}^n [f_{ji} \cdot (f_{k<i} + \frac{1}{2} \cdot f_{ki})]}{N^2}$$

In the formula, j and k are pair of factors (stimulants); n; last rank,  $f_{ji}$ ; Frequency of assigning rank i to stimulus j,  $f_{ki}$ ; Frequency of assigning rank i to stimulus k,  $f_{k<i}$ ; Frequency of assigning a lower rank than the i rank value to k stimuli, N; The number of participants (Turgut, & Baykul, 1992). Then, each cell in the proportion matrix was converted to standard z-scores. Positive scale values were obtained by adding to all column averages the absolute value of the z-score, which is the lowest in the obtained column averages. These steps were implemented through Microsoft Excel program.

The qualitative data to support main analysis were coded by using descriptive coding (Miles et al., 2018). In this coding method, passages or sentences were summarized with one or two words appropriate to the meaning. Because we asked participants short but focused answer questions, each of the answers (n = 66) of

participants was coded in only one theme. Finally, eight themes were obtained.

**Findings**

Table 2 present the frequency matrix showing how many times each factor was placed in each order by the participants. For example, 44 of the participants ranked parents' demand in the first place. In this table, column and row totals are equal to the number of participants.

*Table 2. Rank-order frequency matrix (F)*

Stimuli		teache chance r / / interes									
		Pare Frie nts' nds'	counseunpla llor' nned	t / ability	job	entranc econo e exam mic dia	me performcondit ct	ow			
Ri	and ion nce	ons	ence	ige	unity	ance	ions	ct	ow	$\Sigma r$	
1	44	29	28	56	110	19	27	59	14	31	417
2	20	46	43	36	49	52	51	49	39	32	417
3	37	24	50	30	36	49	48	51	56	36	417
4	26	33	38	42	31	42	38	55	64	48	417
5	64	37	35	24	20	56	54	36	56	35	417
6	35	25	31	27	32	65	60	42	48	52	417
7	41	31	44	53	22	59	37	32	51	47	417
8	39	31	78	50	37	29	33	34	39	47	417
9	29	94	45	45	31	33	39	22	34	45	417
10	82	67	25	54	49	13	30	37	16	44	417
$\Sigma$ mn	417	417	417	417	417	417	417	417	417	417	417 0

The formula given above (Guilford, 1954) was used on frequency matrix for the pairwise comparison of factors. Thus, the proportion matrix was formed. Table 3 shows the result of converting the frequency matrix into a proportion matrix.

**Table 3. Proportion Matrix derived from ranking career choice factors**

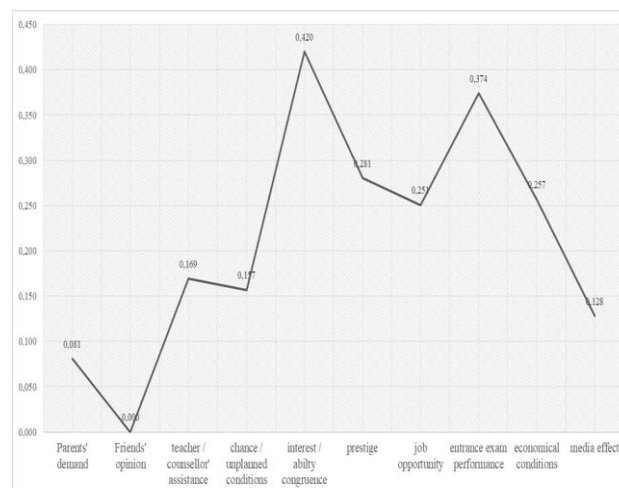
Ranking Stimuli	1	2	3	4	5	6	7	8	9	10
1	-	0,476	0,502	0,538	0,546	0,531	0,518	0,556	0,549	0,460
2	0,524	-	0,512	0,564	0,564	0,534	0,534	0,573	0,555	0,470
3	0,498	0,488	-	0,551	0,556	0,532	0,530	0,576	0,554	0,438
4	0,462	0,436	0,449	-	0,501	0,471	0,471	0,514	0,494	0,402
5	0,454	0,436	0,444	0,499	-	0,469	0,471	0,520	0,493	0,384
6	0,469	0,466	0,468	0,529	0,531	-	0,508	0,554	0,525	0,397
7	0,482	0,466	0,470	0,529	0,529	0,492	-	0,543	0,520	0,414
8	0,444	0,427	0,424	0,486	0,480	0,446	0,457	-	0,465	0,371
9	0,451	0,445	0,446	0,506	0,507	0,475	0,480	0,535	-	0,371
10	0,540	0,530	0,562	0,598	0,616	0,603	0,586	0,629	0,629	-
Σcolumn	4,323	4,169	4,277	4,800	4,831	4,554	4,554	5,000	4,785	3,708

The ratios in the proportion matrix were converted to z standard values. To obtain the scale value (SV) of each factor (stimulus), column averages were taken. Table 4 present standardized version of the proportion matrix.

**Table 4. Standardized proportion matrix derived from ranking career choice factors**

Ranking Stimuli	1	2	3	4	5	6	7	8	9	10
1	-	-0,060	0,004	0,096	0,116	0,079	0,046	0,141	0,124	-0,100
2	0,060	-	0,031	0,162	0,162	0,084	0,085	0,184	0,138	-0,075
3	-0,004	-0,031	-	0,128	0,141	0,081	0,076	0,192	0,135	-0,156
4	-0,096	-0,162	-0,128	-	0,004	-0,072	-0,074	0,035	-0,014	-0,249
5	-0,116	-0,162	-0,141	-0,004	-	-0,077	-0,073	0,051	-0,017	-0,296
6	-0,079	-0,084	-0,081	0,072	0,077	-	0,020	0,137	0,062	-0,260
7	-0,046	-0,085	-0,076	0,074	0,073	-0,020	-	0,108	0,050	-0,216
8	-0,141	-0,184	-0,192	-0,035	-0,051	-0,137	-0,108	-	-0,087	-0,328
9	-0,124	-0,138	-0,135	0,014	0,017	-0,062	-0,050	0,087	-	-0,329
10	0,100	0,075	0,156	0,249	0,296	0,260	0,216	0,328	0,329	-
Σcolumn	-0,445	-0,832	-0,561	0,756	0,835	0,138	0,136	1,263	0,720	-2,010
SV	-0,044	-0,083	-0,056	0,076	0,083	0,014	0,014	0,126	0,072	-0,201
CSV	0,157	0,118	0,145	0,277	0,284	0,215	0,215	0,327	0,273	0,000

Finally, to provide clarity and ease of comparison and to acquire positive scale values, scale values were summed with the absolute value of the largest negative value. Thus, the lowest value was set to zero (see., table 4, values of CSV). Figure 1 shows the graph generated from the corrected scale values (CSV). The ranking of career choice factors as follows: 1) Interest / ability congruence, 2) Entrance exam performance, 3) Prestige, 4) Economic conditions, 5) Job opportunity, 6) Teacher / counsellor' assistance 7) Chance / unplanned conditions, 8) Media effect, 9) Parents' demand, 10) Friends' options. According to this, the least important factor of the participants was friends' options. Participants thought that chance events impacted their career choices more than family demands, friends, and media.



**Figure 1. The ranking of career choice factors in the total sample**

The procedure to acquire the corrected scale values applied to groups separated by gender for obtaining rank-order of factors impacting female and male students' career choices. Figure 2 shows the graph formed with ranking scale values.

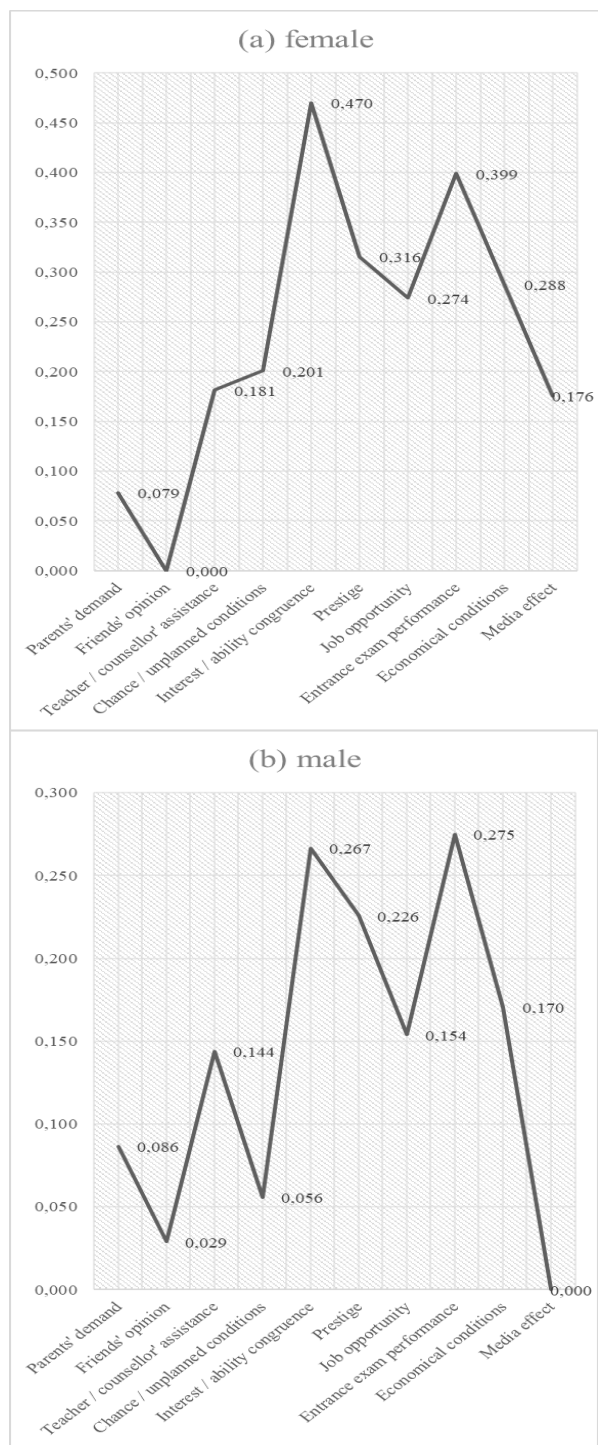
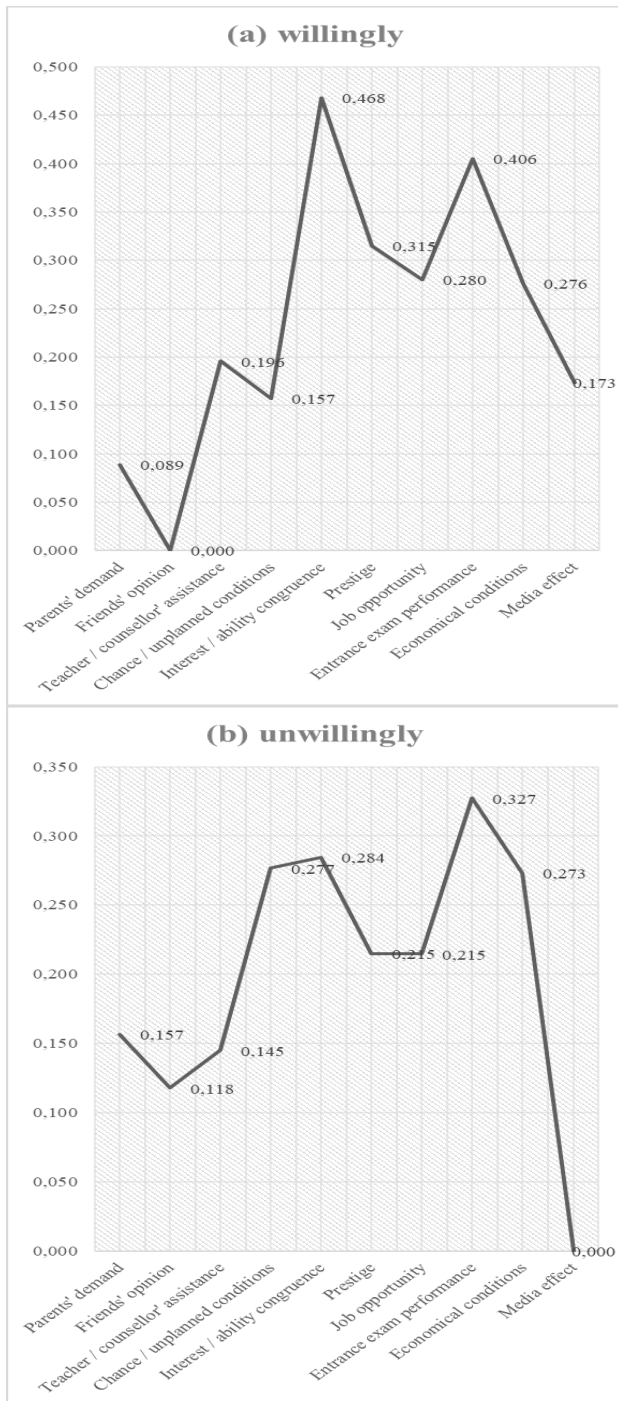


Figure 2. The ranking of career choice factors by (a) female and (b) male

Figure 2a shows the ranking of career choice factors for women as follows: 1) Interest / ability congruence, 2) Entrance exam performance, 3) Prestige, 4) Economic conditions, 5) Job opportunity, 6) Chance / unplanned conditions, 7) Teacher / counsellor' assistance, 8) Media effect, 9) Parents' demand, 10) Friends' options. In Figure 2b, the order these for men is as follows: 1)

Entrance exam performance, 2) Interest / ability congruence, 3) Economic conditions, 4) Prestige, 5) Job opportunity, 6) Teacher / counsellor' assistance, 7) Parents' demand, 8) Chance / unplanned conditions, 9) Friends' options, 10) Media effect.

Similarly, the procedures were applied separately for the participants who made their career choices willingly and unwillingly. Figure 3a shows the ranking of factors impacting career choices for the participants who made their career choice willingly as follows.: 1) Interest / ability congruence, 2) Entrance exam performance, 3) Prestige, 4) Job opportunity, 5) Economic conditions, 6) Teacher / counsellor' assistance, 7) Media effect, 8) Chance / unplanned conditions, 9) Parents' demand, 10) Friends' options. Otherwise, Figure 3b shows those for the participants who made their career choice unwillingly as follows: 1) Entrance exam performance, 2) Interest / ability congruence, 3) Chance / unplanned conditions, 4) Economic conditions, 5) Prestige and Job opportunity, 6) Parents' demand, 7) Teacher / counsellor' assistance, 8) Friends' options, 9) Media effect.



**Figure 2. The ranking of career choice factors in the sample make career choice (a) willingly and (b) unwillingly**

Note: a) willingly n = 352, b) unwillingly n = 65

Finally, in Table 5, the rankings of factors impacting career choices according to different groups such as gender and willingness are summarized.

**Table 5. The ranks of career choice factors as per total sample, gender and, willingness**

Stimuli	Total	Female	Male	willingly	unwillingly
Parents' demand	9	9	7	9	6
Friends' options	10	10	9	10	8
Teacher / counsellor' assistance	6	7	6	6	7
Chance / unplanned conditions	7	6	8	8	3
Interest / ability congruence	1	1	2	1	2
prestige	3	3	4	3	5
Job opportunity	5	5	5	4	5
Entrance exam performance	2	2	1	2	1
Economic conditions	4	4	3	5	4
Media effect	8	8	10	7	9

### Qualitative Findings

Of the 417 participants, 66 (55 females, 11 males) provided qualitative data that could be analysed. As a result of the content analysis, eight categories of chance events emerged. Table 6 shows the eight categories as follows: unexpected examination result, personal relationships, encountering unexpected information during the process of choosing a department, establishment of their desired department, change of their wants, experiencing a failure, making a mistake and effect of temporary location. The most frequently mentioned chance event by the participants was encountering an unexpected examination result. Accordingly, the participants learned that they enter the department which they thought they cannot, which they wrote on the preference list casually, or which they preferred at the last moment. Another popular chance event was talking about the career choice with a friend, family friend, teacher, and so on, during the exam and preference period. The participants state that this conversation affects their career choice.



**Table 6. Themes, frequencies, and quotations about perceptions of chance and unplanned experiences**

Themes	f	Quotations
Unexpected examination results	23	"I couldn't get into the department that I thought I would absolutely enter. I entered this department because it was down to below in my preference list." <b>Male, Landscape architecture, first-year student.</b>
Personal relationships	18	"...during the preference period, I coincided with my friend in the theatre play I role in and he/she was going to choose Criminal Enforcement, too. He/she explained the positive aspects of this department and also the things that confused me, and this was effective for me in choosing this department." <b>Female, Criminal Enforcement, first-year student.</b>
Unexpected Information	7	"I learned by coincidence that there was the department in the city where I live, I had no money, so I chose here instead of going far." <b>Female, English Language and Literature, second-year student.</b>
establishment of related department	6	"The department was established in the year I took the exam." <b>Female, Banking, and insurance, second-year student.</b>
Chanced wants	4	"I wanted to change city" <b>Female, Material science and engineering, third-year student.</b>
Experience a failure	3	"I couldn't succeed in the Military Interview" <b>Male, Avionics, second-year student.</b>
Making a mistake	2	"Wrong selection of not the department but the university, by mistake" <b>Male, Management Information Systems, second-year student.</b>
temporary location	2	"I had an abroad experience that I did not plan, and then I started to want to learn the language." <b>Female, English translation and interpreting, third-year student</b>
Sum of frequency:	66	

Participants state that during the preference period, unexpected information they encountered while doing research impacted their career choice, and they describe these events as chance. According to the participants, if they had not learned that information, their preferences might have been different. Some participants stated that the department was established the year they entered university entrance exam and that this was a chance. Another chance event was the sudden or momentary change in the thoughts and feelings of the participants at that time. One participant stated that she did not notice the department she wanted for years during the preference period. Another participant stated that she chose her department with an instant and emotional decision. Accordingly, it is seen that the decisions planned before the preference period can change and individuals can head for different areas.

Some participants also consider their failure in entrance exam or university education as a chance to choose their current department. Also, some participants stated that a technical mistake made during the selection of the department (for example, choosing the wrong department in the system) or an event such as the change of their preferences by someone else impact their career choices and that this was a chance. Finally, two participants described their experiences in a temporary residence as a chance.

## Discussion

The results suggest that the career choices of university students are impacted by chance events, as well as the planned factors (such as interest-ability congruence, the characteristics of the job). Among the ten factors that directed their career choices, chance events ranked in the 6th place according to the participants. Further, 28% of the participants think that chance impacts on their career choices. This result differs from Korkut-Owen et al. (2012) study, but they are broadly consistent with other studies (Hirschi, 2010; Kindsiko & Baruch, 2019). This also accords with other studies based on the opinions of participants (Hu et al., 2015; Kim et al., 2019; Kindsiko, & Baruch, 2019; Magnuson et al., 2003; Scott, & Hatalla, 1990; Ulas-Kilic et al., 2020). As can be seen, the rate of reporting the chance events varies. However, no research so far found the position of chance among other factors impacting career choice as in this research.

The results show that chance was perceived as impacting career choices more than family demand, media effect and friends' opinions. However, talking with family and close relatives was perceived as a chance when asked what chance events were. Similarly, in many studies, the relationships of participants were perceived by them as a chance factor (Betsworth & Hansen, 1996; Bright et al., 2005a; Hirschi, 2010, Kim et al., 2019; Korkut-Owen, 2018; Ulas-Kilic et al., 2020; Regan & Graham, 2018). Participants describe it as a chance to have a family that supports them or to

benefit from the experiences of family and close friends. Therefore, every personal relationship experience which is not included in family demands and friend opinions may be set as a chance by participants. In this regard, chance events, due to comprehensiveness, may be ranked further ahead of these factors.

Considering Turkey, which covers some characteristics of collectivist cultures, surprisingly the family demands fell behind chance and other factors. Although family and close friends seem to be effective in career choices (Bright et al., 2005b), the reason for this difference can be explained by the rank-based method of this research. The participants ranked the impact of the factors according to their own perceptions. In this regard, the impact of family and friends may be perceived as less important compared to other factors such as interest-ability congruence, job opportunities and prestige. In the context of Turkey, it can be considered that young people of the Turkish society, due to individualization, care about the opinions of their families and close others, but eventually, they take other factors such as their interests more into consideration when making their own decisions.

Interest and ability congruence came forward among other factors in almost every group. Therefore, this study confirms other studies demonstrating that interest and ability are associated with career choice (e.g., Korkut-Owen et al., 2012; Korkut, 2018; Scott, & Hatalla, 1990; Ackerman, & Beier, 2003; Nyamwange, 2016). The entrance exam performance stood out as another important factor. This finding is also consistent with other studies (e.g., Korkut-Owen et al., 2012; Nalbantoğlu-Yılmaz, 2017; Sarıkaya, & Khorshid, 2009). In this regard, it may be suggested that the factors in the first place regarding ranking of career choices was also significant predictors in the literature.

A difference was found between the priorities of female and male students in their career choices. Scott and Hatalla (1990) reported that unexpected events have an impact on women's careers although not as strong as planned events. In other studies, no difference was found between males and females in terms of experiencing chance (Bright et al., 2005a; Hirschi, 2010). The present

study expanded the findings of previous studies by revealing the difference in priority as per gender. Accordingly, while both males and females experience chance events at similar rates, female students perceived their chance experiences as ahead of other factors which are teachers/counsellors' assistance and family demand when compared to male students. Therefore, it can be interpreted that male students attached less importance to their chance experiences.

Male students put the entrance exam performance as the first factor impacting their career choices, while female students placed interests and abilities congruence in the first place. Consistent with this, Korkut-Owen et al (2012) reported that female students give priority to their interests in the choosing of departments compared to males, on the other hand, male students consider family and work-related characteristics. A possible explanation for this might be gender perception in society. Accordingly, males are brought up in line with the stereotype which includes that they need to work and provide for their families. In this regard, male students may feel more pressure to earn money and so may make career choices to find a job as soon as possible. Thus, career choices may be made under this pressure.

In the present study, another difference found as per willingness in ranking. The participants who make career choices unwillingly perceived chance events more influential than those of making choice willingly. Department selection is an essential career choice. The participants were observed to emphasise the chance when they experienced dissatisfaction during this election. Bright et al. (2009) suggest that chance events can be remembered better when having a great impact on participants' careers and having little control over this. Accordingly, the possible explanation why the unwilling ones ranked the chance event the highest may be that they are better remembered. Moreover, according to Hirschi and Valero (2017), if individuals are in career indecision, they may think that any career choice is impacted by the chance. In this regard, some participants who made their career choice unwillingly can be in career indecision, for this

reason, may have thought that chance was more effective in their choices.

This study also examined which events the participants describe as chance. Accordingly, the perceptions of the participants about chance are similar to other studies. The participants referred to personal relationships such as an unexpected conversation with someone or being encouraged by someone, and to accessing unexpected information, an accident, political or systemic changes (Betsworth & Hansen, 1996; Bright et al., 2005a; Hirschi, 2010, Kim et al., 2019; Korkut, 2018; Ulas-Kilic et al., 2020; Regan, & Graham, 2018) as chance. Moreover, Bright et al. (2005a) report the chance dimensions to be consistent with these qualitative findings.

### Limitations and Future Research

This study has several limitations. First, each factor used in the ranking is expressed with one or a few words and may be open to interpretation of the participants. Although the factors were described clearly and precisely, there is a risk that the same factor may connote different meanings for different participants. To reduce this risk, especially for chance events, how participants perceive chance events was examined with an open-ended question. The participants stated chance events similar to those reported in the literature. Second, the present study focused career choice regarding university and department among career decisions. However, individuals make different decisions at different stages of their careers. Perceived ranking of chance on other career decisions, such as changing a position or job, may be different. Therefore, caution must be taken when generalizing the results on other career decisions. Third limitation is the examination of chance at the general level due to the research scope of this study. The place of chance events in career choices requires a more detailed examination in future studies. Chance events are recommended to investigate with dimensions reported in the literature and supported by the qualitative results of this study.

### Implications for Practice

Career counselling for transition to university in Turkey is generally based on matching the exam scores of the students with the departments. Consistently, the entrance exam performance was among the primarily effective factors in the career choices in this study. On the other hand, this condition can be interpreted as an indicator that students need help and support in terms of career counselling. Accordingly, one of the noticing factors need to be addressed in career support and counselling services may be chance. A notable proportion of the university students in this study believe that chance events influence their career choices and change their plans. Disruption of career plans due to unexpected events, namely chance, can be claimed to provide a perspective from the rigid to flexible construction of the career counselling process. Therefore, this study suggest that career counselling may provide a flexible way to support young people's career plans rather than rigid plans. By providing flexibility and acknowledging chance, career counsellors may make their clients benefit more from career counselling services. Career counselling can include such skills as living with uncertainty, staying curious about the future, taking risks, and developing an open thinking system (Pryor & Bright, 2011). As claimed by Bright and Pryor (2008), career counselling may be constructed from control to flexibility, from probability to opportunity, and from limiting to expanding. In this context, enabling clients to acquire skills (see further; Borg et al., 2006; Kwok, 2018; Pryor & Bright, 2006) to benefit from chance events can be an important goal for career counselling, considering the uncertain and unpredictable context of the 21st century.

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