OPUS

issue 48

OPUS Journal of Society Research

Volume 19 • Issue 48 • July 2022 • ISSN: 2791-9781 E-ISSN: 2791-9862

ISSUE 48

ADAMOR

OPUS

Journal of Society Research

Volume 19 ● Issue 48 ● July 2022 ● ISSN: 2791-9781 E-ISSN: 2791-9862

ISSUE 48

ADAMOR

OPUS

Volume 19, Issue – 48

Journal of Society Research
Toplum Araştırmaları Dergisi

ISSN: 2791-9781 – E-ISSN:2791-9862

Issue – 48 ● July 2022

Issue – 48, 2022

Content

Editorial

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OPUS Journal of Society Research (JSR) is abstracted in EBSCO Information Services, ERIHPLUS European Reference Index For The Humanities and Social Sciences, Cite Factor, TEI Index of Turkish Education, ULAKBIM TR Index, SOBIAD Citation Index and ASOS Index.

Received Date: 29 April 2022 I Accepted Date: 20 June 2022

OPUS Journal of Society Research

RESEARCH ARTICLE

Chance in Career Choice: A Rank-Ordering Study

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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.

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 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 araştırmada 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.*

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-Sedeñto 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 Thustone'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%)
	1st	108 (41%)	53 (44%)	180 (43%)
	2nd	73 (28%)	30 (24%)	108 (26%)
	3th	35 (13%)	18 (15%)	61 (15%)
	4th	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; Rocker-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.

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

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										
R_i	Parents' demand	Friends' opinion	teacher / counsellor' assistance	chance / unplanned conditions	interest / ability congruence	prestige	job opportunity	entrance exam performance	economic conditions	media effect	∑row
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
∑column	417	417	417	417	417	417	417	417	417	417	4170

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	-	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	-
∑column	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		-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	
∑column	-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.

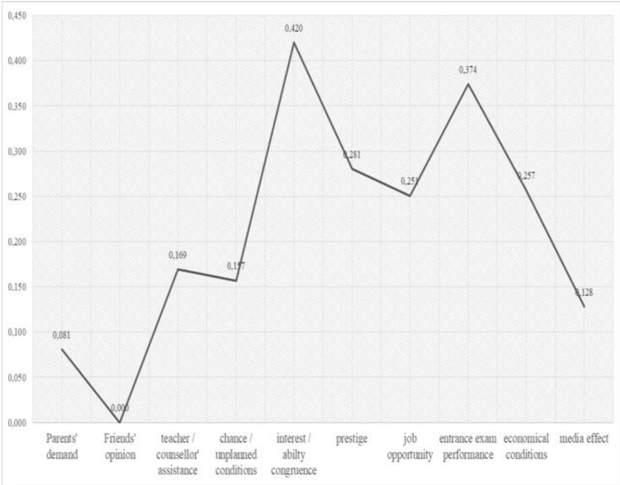

Figure 1. The ranking of career choice factors in the total sample

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.

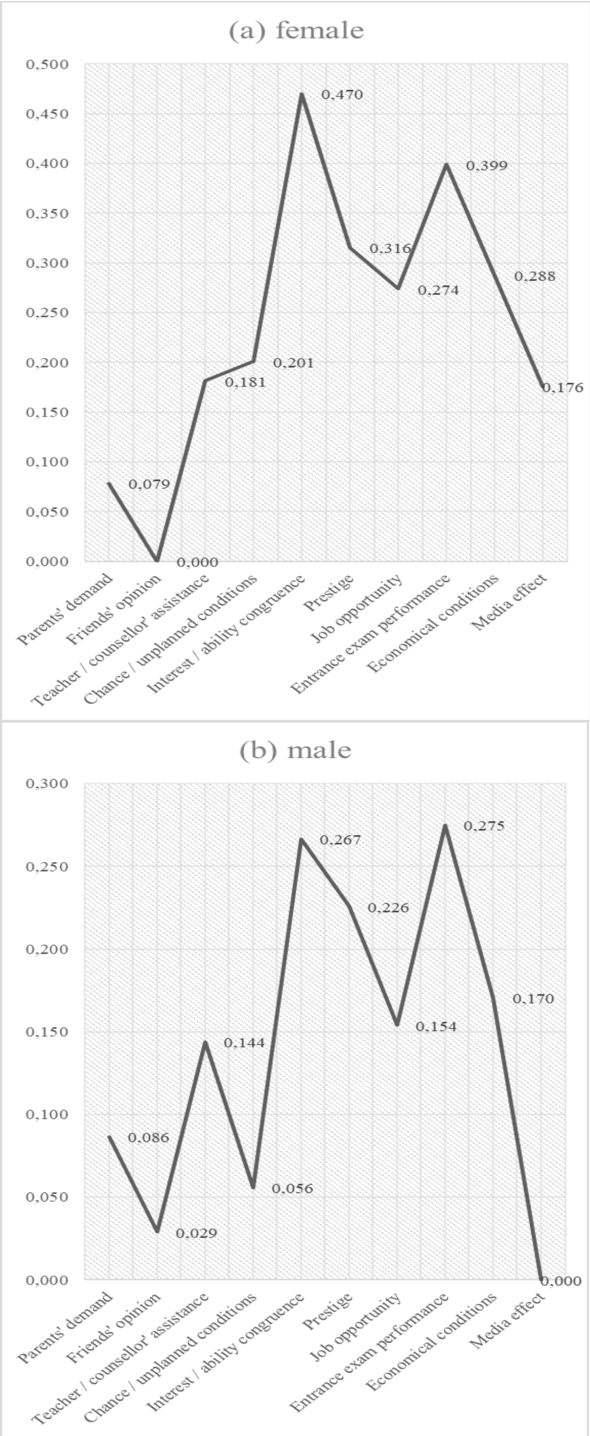

Figure 2. The ranking of career choice factors by (a) female and (b) male

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.

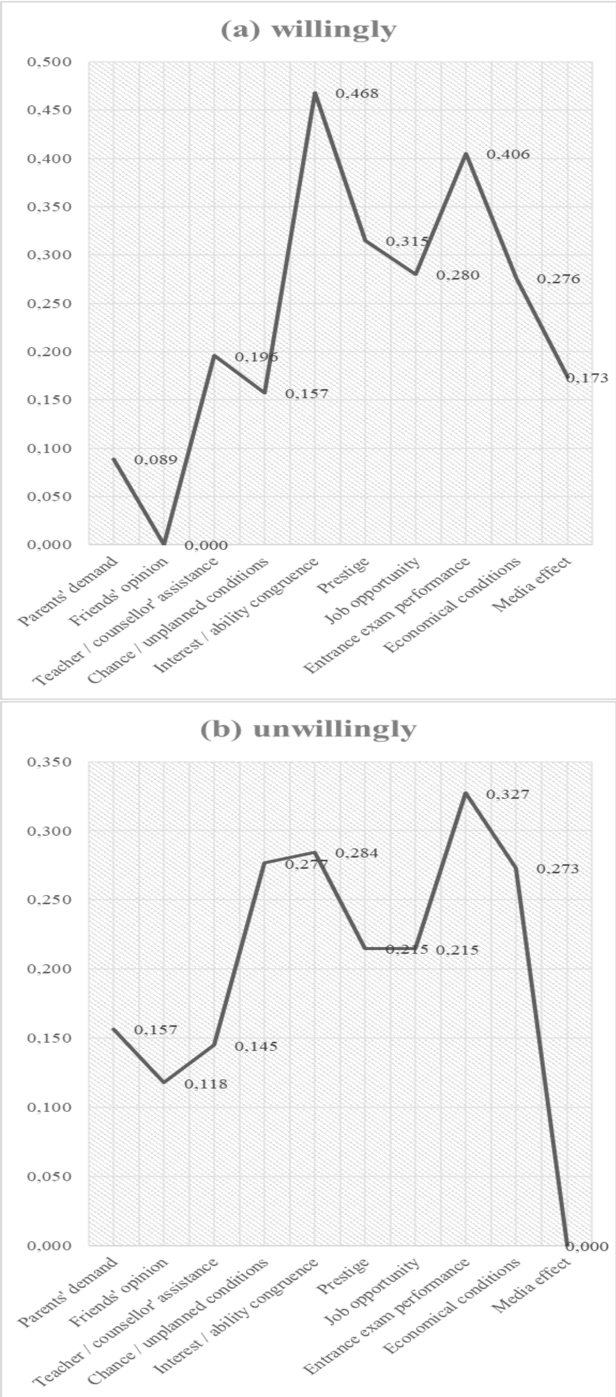

Figure 2. The ranking of career choice factors in the sample make career choice (a) willingly and (b) unwillingly

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." **Male, Landscape architecture, first-year student.**
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. "**Female, Criminal Enforcement, first-year student.**
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." **Female, English Language and Literature, second-year student.**
establishment of related department	6	"The department was established in the year I took the exam." **Female, Banking, and insurance, second-year student.**
Chanced wants	4	"I wanted to change city" Female, **Material science and engineering, third-year student.**
Experience a failure	3	"I couldn't succeed in the Military Interview" **Male, Avionics, second-year student.**
Making a mistake	2	"Wrong selection of not the department but the university, by mistake" **Male, Management Information Systems, second-year student.**
temporary location	2	"I had an abroad experience that I did not plan, and then I started to want to learn the language." **Female, English translation and interpreting, third-year student**
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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Received Date: 05 April 2022 I Accepted Date: 30 July 2022

OPUS
Journal of Society Research

RESEARCH ARTICLE

Design Empathy on Digital Radio Platforms

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July 2022
Volume:19
Issue:48
DOI: 10.26466//opusjsr.1099181

Citation:
Mayda, M. (2022). Design empathy on digital radio platforms. *OPUS– Journal of Society Research, 19*(48), 588-602.

Abstract

Breakdowns experienced in the media field due to technology and digitalization highlight some concepts. Concepts such as speed, mobility, screen, connectivity and interaction are rapidly finding application in digital media environments. When viewed from this perspective, it is seen that many new media production areas with technology references have emerged. One of these new digital media production areas is digital radios. With the traditional radio broadcasting being replaced by digital over time, it has become much more efficient to broadcast radio in the virtual environment. From now on, radios are no longer a media tool that is listened to, but also a communication environment that can be watched and interacted with. Thanks to the web technology that transforms the radio into a watchable platform, it is seen that the radio reaches the listener and the audience through the screens. For this reason, it can be said that the area of influence of radio broadcasting has expanded and radio broadcasting has taken a much more active position in the media sector. In this study, the subject was discussed descriptively and a design analysis of popular digital radios was carried out through the sample. The popular digital radio platforms in the sample were evaluated through various categories and sub-categories in terms of design discipline, and it was tried to analyze how the platforms went into fiction with design. By applying the Design Empathy technique in the study, it has been tried to reveal how the design transforms these platforms technically and semantically. In addition, the development adventure of digital radio platforms was handled with a design perspective, and the point of radio broadcasting was tried to be examined.

Keywords: *Digitalization, Digital Radio, Media Design, Design Empathy.*

Öz

Teknoloji ile dijitalleşmeye bağlı olarak medya alanında yaşanan kırılmalar bazı kavramları öne çıkarmaktadır. Hız, mobilite, ekranlaşma, bağlantılılık, etkileşim gibi kavramlar özellikle dijital medya ortamlarında kendilerine hızlı bir şekilde uygulama alanı bulmaktadır. Bu çerçeveden bakıldığında teknoloji referanslı pek çok yeni medya üretim alanının ortaya çıktığı görülür. Bu yeni dijital medya üretim alanlarından biriside dijital radyolardır. Geleneksel radyo yayıncılığının zaman içerisinde yerini dijitale bırakması ile sanal ortamda radyo yayını yapmak çok daha verimli hale gelmiştir. Artık radyolar dinlenen bir medya aracı olmaktan çıkarak aynı zamanda izlenen ve etkileşime geçilebilen bir iletişim ortamına dönüşmüştür. Radyoyu izlenebilir bir platforma dönüştüren web teknolojisi sayesinde, radyonun dinleyici ve izleyici kitlesine artık ekranlar üzerinden ulaştığı görülür. Bu sebeple radyo yayıncılığının etki alanının genişlediği ve medya sektörü içerisinde radyoculuğun çok daha aktif bir pozisyon aldığı da söylenebilir. Bu çalışmada betimsel olarak konu ele alınarak, örneklem üzerinden popüler dijital radyoların tasarımsal analizi gerçekleştirilmiştir. Örneklemdeki popüler dijital radyo platformları tasarım disiplini açısından çeşitli katagori ve alt katagoriler üzerinden değerlendirilerek, platformların tasarım ile nasıl bir kurgulamaya gittiği analiz edilmeye çalışılmıştır. Çalışmada Tasarımsal Empati tekniği uygulanarak, tasarımın bu platformları teknik ve anlamsal yönden nasıl dönüştürdüğü ortaya konulmaya çalışılmıştır. Çalışmada dijital radyo platformlarının gelişim serüveni tasarımsal bakış açısı ile ele alınarak, radyoculuğun geldiği nokta irdelenmeye çalışılmıştır.

Anahtar Kelimeler: *Dijitalleşme, Dijital Radyo, Medya Tasarımı, Tasarımsal Empati*

Introduction

It can be said that design has strengthened its position in the media due to digitalization today. Accordingly, there is an increase in the speed of diversification and interaction in media production areas. It is possible to say that visual perception has become much more important today, where visual culture is rapidly transforming into digital visual culture. Today, it has become much more important to make sense of what you see and to construct interaction processes over visuality. In this respect, it can be said that the visual literacy level of the society has become much more effective especially in media readings. John Berger Quote: "As soon as we see something, we realize that we can also be seen ourselves." approach reveals how visibility has become the main element of interaction in today's digital media world (Berger, 2003, p.9).

The effectiveness of digital radio platforms is increasing in media production areas that are open to interaction in digital media with a satisfying variety. It can be said that design is very effective in this increase. Because radio is no longer just a media tool that is listened to, but also a media tool that can be watched, observed and interacted with. In this case, it is seen that the news, information or broadcast is not only presented with a sound wave, but also transmitted over intense visuality. In this respect, design contributes to the fact that information plays a greater role in interaction processes by filling the new digital media ground to a large extent. In addition, with the effect of design on digital radio platforms, the effectiveness of the audience in the communication process is also increasing. In this respect, it can be said that design contributes to people's understanding of digital life and to managing digital communication processes more effectively (Heskett, 2002, p.15).

Digital radio platforms; depending on the digital transformation of the media, it is increasing its share in the media pie day by day. As the reason for this situation, it can be said that the listener and the audience take a much more active place in the communication process on digital radio platforms (Özel, 2020, p.1156). Now, while listening to the radio, the options have increased depending on the variety of broadcasting, and at the same time, the benefits of the audience from the radio have diversified. You can comment on a song you are listening to and you can create your own program list according to your interests. You can manage the communication process between you and the radio in a more interactive way, and at the same time, you can instantly share the information you have obtained with others. In this and many similar processes, design is at the center of the work and acts as a bridge between the radio and the audience. In this study, it has been tried to convey how the design performs this task in practice through the sample. With the Design Empathy technique, the sample was analyzed designally and it was tried to determine how digital radio platforms went to fiction through design. In the first part, the conceptual framework was tried to be revealed, and in the next part, digital radio platforms were introduced. In the analysis section, categories and sub-categories were created over the sample, and data were obtained accordingly. The data obtained from the analysis were interpreted in the last section and the position of digital radio platforms in digital media was tried to be examined through the design.

Digital Media And Design

With the Industry 4.0 process, it is seen that digitalization in human life has rapidly transformed almost every field. This situation causes new breaks in the way people perceive the world and in their communication with their environment. As both a producer and a consumer, people are involved in life in a more dynamic way in almost all communication fields. In particular, the individual is more involved in the management of processes in the newly formed digital media areas depending on technology. By exhibiting a structure that prioritizes the individual, digital media makes communication multi-dimensional and multi-media rather than two-way. Data producer and consumer are now the same person, and accordingly, a global interaction network is created through digital media. This global interaction network also forms the basis of digital capitalism and repositions the individual as both a producer and a consumer thanks to the internet. Fuchs explained this change;

"Internet users observe the expansion of the internet-based product market in their user activities and begin to realize that they are simultaneously engaged in the existence of user-generated content, permanent creative activity, communication, community building and content production" (Uzunoğlu, 2015, p.187). Based on this approach, especially digital media reorganizes the way of perceiving the virtual world by prioritizing the individual in a pragmatic way. In addition, in these transformation processes, the change of the individual's position occurs with or without the individual's own will. When digital media is considered as a concept, it is possible to make a definition through the effect of media on human life. Based on Lippmann's approach that "beyond being a mere source of information, the media offers us environments about what the world is like and the nature of reality", it can be said that the media is at an important point in making sense of nature and our environment. Especially at the point of accessibility, media can be described as communication media that includes all kinds of written, printed, audio and visual texts and images (Taş, 2020, p.14-17). Accordingly, digital media; It can be defined as the production of media over digital environments and systems. What is at issue here is the production of the message over digital media in a faster and more interactive way together with the internet. There are many technology-referenced sub-technical definitions of the concept of digital media, and since individuality is at the forefront in digital media, it is seen that diversity is increasing. In digital media, individuals can participate in communication processes on a global scale and provide content to the system. In traditional media, the message is given unidirectionally to a dispersed audience as a whole, while in digital media, information is divided into parts (modularity) and sent to individuals or groups. In this respect, digital media brings many advantages (speed, diversity, power of influence, etc.) (Onay, 2018, p.82). Because the communication process can be managed much more easily by the individual in the virtual environment. Thanks to technological tools, the content produced or consumed can be published quickly, and at the same time, individual action can have an impact on a global scale. This situation; It can explain Manovich's approach that digitalization has a global cultural impact by taking the physical world as a reference while describing new media (Arık, 2013, p.276). For example, a message sent from social media or a shared visual content can mobilize societies in another part of the world and have an open-ended effect. This situation; It also shows that online communication processes are transforming and drawing a direction from the individual to the global.

Considering the relationship between the concept of design and digital media, there is a multi-faceted contact. It can be said that the content produced and consumed in digital media is fictionalized through design. In this respect, the concept of design can be defined within the field of communication through Elizabeth Adams Hurwitz's "Design: Searching for the Necessary" approach or Robert Gillam's "Whenever we are doing something for a defined purpose, then we are designing". In this respect, if both approaches are accepted as a reference, the message produced or consumed in digital media should be designed with a design-based approach. The field called digital media design today covers this definition of the concept of design (Becer, 2019, p.32).

Positioning Design In Digital Media

The fact that the concept of design is at the center of digital media processes causes the digital communication world to be created through visuality. The message spreads faster and more effectively through visuals and puts the individual in the communication process. In particular, the visual, communicative and functional feature of the design makes it the most important element in the construction of digital media platforms. This situation causes the visual culture to transform through design together with digitalization, so the effect of design on the cultural structure of society through media increases (Barnard, 2010, p.13-31). A visual message sent by mobile phone, an e-bulletin with visual content or a digital radio platform that is listened to and watched can be considered as the reflections of different aspects of design in digital media. In this respect, the fact that the content is built on visuality causes very different processes in the use of media. Now, communication is defined as digital visual communication and the conceptual technical infrastructure is generally constructed according to this approach. Accordingly, in the development of digital visual culture, it is seen that the impact power of design increases in digital environments and therefore the individual acts more comfortably in digital interaction processes. In particular, digital platforms based on visuality transform the way the user perceives and uses information. In online shopping website designs in the field of digital media design, which is one of the most common applications, an example can be given to how design elements affect and guide the user at the point of decision making in the shopping processes. In an empirical research that measures the visual impact of web design, it is seen that the user conducts the decision-making process over visuality (Ganguly, Dash, Cyr, & Head, 2010, p.321-324-325). It is seen that visuality is very effective in the processes, especially by contacting the cultural references of the user. This situation shows that if a digital communication platform is designed well, visual information makes that platform much more efficient in terms of communication.

It can be said that one of the reasons for the rapid development of digital visual culture is to see, to make sense of what one sees and to transform it into information (Arnheim, 2007, p.34). In this respect, it is seen that very intense information is produced through visuality, especially on digital platforms. The reason for this density can be shown as being able to be included in the digital media world at any time independent of time and place. This situation causes digital media to spread to all layers of society and at the same time to deepen interaction. The fact that digital media affects almost all layers of society with design-based content is also a situation related to the reading of indicators by individuals in digital communication processes (Günay, 2012, p.12). In this respect, it is important to increase the visual literacy level of the society and at the same time to transform the visual culture within certain references. The fact that visual literacy has become so important today is also important in increasing the level of digital media literacy. Throughout human civilization, language has been the cornerstone of society. Today, it can be said that visual language has become much more important for the communication world of human beings. Because in digital communication based on visual language, it is possible to make sense of thoughts on a visual basis (Alpan, 2008, p.78). This means that a visually literate individual can think and interpret visually. In today's digital information world, it becomes much easier for a person who has this ability to organize his daily life and to be positioned in digital interaction.

Digital media is also called New Media. In the communication processes in the digital media (new media); Technology-based systems and computers are used to transmit messages such as broadcasting, production, manipulation, recording and display (Cicioğlu, 2019, p.50). In this new media field, where technology is used intensively, it is seen that design is also included in the processes along with technology. Now, content can be designed very quickly with a mobile phone or broadcast can be made very easily with a computer. Thanks to design technology, it spreads throughout the society, allowing everyone to communicate in a very comfortable way through visuals. In daily life, people are in the position of the person who communicates or contacted outside of sleep (Becer, 2019, p.11). This situation also causes the emergence of new digital processes based on visuality, thanks to digitalization. In this respect, while digital visual culture transforms depending on technology-referenced breaks, it is seen that design-oriented thinking has become much more dominant in all areas where people are in contact. Design-oriented thinking has begun to affect processes in many areas from business life to social life (Berger , 2014). Because design-oriented thinking stands out as one of the most important tools in turning the wheels of digital capitalism. The important point here is the power of design to influence the individual through visuality while the individual takes a position in the digital visual culture. The controllability of this power and the effect level of visuality are important for today's digital people.

When the issue is considered in terms of digital radio platforms, it is seen that the platforms are well-designed websites. The design is at the center of the processes in the construction of these platforms and makes an important contribution to the transformation of radios into a structure that can be watched visually. Because design is a determining factor in the efficient use of a website by the media consumer and the interaction of the user with the content. In the digital architectural structure created by the design, the visual hierarchy can focus the user on the most relevant or be effective in transferring the content to the user effectively (Aro, 2014, p.20-21). Because visual information transmitted over a screen can respond to the user's personal expectations such as liking, pleasure, importance and need. In this sense, the sub-components of the design meet the needs of today's digital people in digital culture and offer various opportunities and options to the individual at the point of digital satisfaction. This situation also enables radios to become a media tool that can be watched and interacted with over digital platforms at the same time.

While designing digital radio platforms, the basic principles of design are included in the editing. Many elements such as balance, rhythm, movement, harmony, emphasis, contrast, color, connection, hierarchy are included in the work so that the design can be read visually by the user (Reid, 2022). The important point here is that the visually presented content is dynamic and presented in a structure that will appeal to different user profiles. On these platforms; it is a case of making the radio experience, which is used by listening under normal conditions, a tool that is watched at the same time through visuality. Because these platforms, unlike traditional radios, offer the user options for visual advertisement presentation, list creation, archiving and personalization with many different content. While presenting these options, it uses all the advantages of the design by using the visuality at the optimum level. At the same time, the process of listening to and watching the radio broadcast can be considered as an intense visual interpretation process.

Design Empathy Concept

With the rapid development of digital media, we are faced with a heavy rain of information flowing over the screens. This information rain increases its effect especially through visuality, and accordingly, perceiving and making sense of the digital world at the fingertips depends on the level of visual literacy. In this respect, sight-loving (delighting in what one sees) finds its place in the digital society as a new behavior created by communication processes (Cicioğlu, 2019, p.146). People are now trying to find a place for themselves in the digital world through visuality by focusing on seeing rather than reading. In digital visual culture, there is a rapid dissemination of information through design. For the definition of the concept of knowledge; If the approach of "knowledge is a measurable, calculable, evaluable behavior or attitude based on observation" approach, visual literacy becomes important in digital media processes today (Çetin, 2018, p.36). A new perspective is needed in this regard. The concept of Design Empathy can reveal a new perspective in reading the design and transforming it into information by being processed in the digital communication process.

Based on Victor Papanek's definition of the concept of design as "All people are designers because design is the basis of all human activities", the forms of action that people reveal while using digital media are almost in relation with design (Mozota, 2006, p.13). In this case, the design should be read with certain standards and references at the point of visual literacy. In addition, Barnard's description of the visual literacy process as "what creates an emotional effect is not shape, line, color, or texture, but that shape, line, color or texture can be achieved in the range we react to" indicates what kind of approach should be taken in the design analysis process reveals it (Barnard, 2010, p.63). With this perspective, the concept of Design Empathy; It can be described as "the person's putting himself in the place of the design object and analyzing the design object in emotional, semantic and logical dimensions" (Mayda, 2021, p.285).

While analyzing digital media areas with Design Empathy, especially all sub-components of graphic communication are involved. Because in the discipline called graphic communication, there is a two-way exchange of images. This situation necessitates a multi-dimensional approach to the subject when design analysis is made (Becer, 2019, p.28). In the analysis process, design data should be obtained by separating the design into its sub-layers in emotional, semantic and logical dimensions. The obtained data is first created by visual perception, then processed and read, and visual information is obtained from the design (Günay, 2012, p.157). All these processes also include the features of visual literacy in interpreting and producing messages from visuals.

Digital Radio Platforms

Digital radio platforms increase their activities day by day depending on the development of digital media. With the shift of radio broadcasting to the digital field with the internet, there are new formations in the production of content in radio broadcasting and in the presentation of the media to the target audience. In particular, the dominance of the digital world over the media has caused significant changes in the viewing culture, and media production on the visual basis has diversified through screens (Akyol & Oğuzcan, 2019, p.54). Accordingly, radio broadcasts consumed by listening have also become broadcasts consumed by watching. For this reason, besides the evolution of cinema and television to the digital world, radios are taking their share from this change. It can also be said that digital radio platforms have revolutionary potential in radio broadcasting in this respect. Convergence Culture, which emerged as a result of the breaks in the digital visual culture put forward by Henry Jenkins, finds its place in digital radio platforms in terms of radio broadcasting. Now, there is a new generation of radio broadcasting that is technology-driven and presented through multimedia (Cicioğlu, 2019, p.190). Media Convergence in the convergence culture that develops depending on technology; It can be described as the realization of mutual content exchange of media systems over multimedia and thus revealing the interaction in the media in a much more dynamic way. In media convergence, the communication process allows the message to be interacted at the desired time and place under the control of the individual, thanks to new communication tools with technology references. For example, you can access a content you have saved online whenever and wherever you want, from your mobile smartphone or computer. At the same time, you can access the same content from a smart watch or any online device. Devices can be used in a coordinated manner in the processes of using and consuming media content. At the same time, this situation makes the use of media much more dynamic for the individual. In terms of digital radio platforms, visual, audio and textual content is presented to the user through multimedia (Özel, 2014, p.179). Although the effects of these processes are global, the radio user also has access to content 24 hours a day. The user has the opportunity to access the content of the radio with any device and at any time. This situation brings radio as a media tool to a different position in the eyes of consumers.

The variety of content offered by digital radio platforms uses the multimedia language while transforming the radio user. Because while these web pages present content in digital media, they use various visual tools that enrich the content such as connectivity, multiple access, photography, motion picture, video, sound, hypertext and animation (Moreno, Costa, & Amoedo, 2009, p.126). Since this visuality affects the use of radio content, it is seen that photographs and visual elements are used extensively on the platforms. Visuality also affects the visibility of these radio platforms on the internet, making significant contributions to the marketing of the platforms to the target audience. Although visuality has a versatile function here, it can be stated that the power of the design to affect the user is felt very intensely on these platforms.

Watchable Radios

Thanks to digital radio platforms, it is possible to consume radio broadcasts on screens. This means reaching the broadcast via different technological devices (mobile phone, computer, tablet, smart TV, etc.) called multimedia or called digital convergence. Thanks to internet access online, it is possible to reach radio broadcasting independently of time and place, much faster. In terms of media consumption, in today's digital visual culture, it is seen that the individual acts more freely and faster in the media consumption processes and in his relationship with the radio. Because today's people (especially the Z generation) has changed the way they use the media. In the digital media world, which has an approach that prioritizes the individual, it is seen that media consumption processes are shaped on the axis of uses-gratifications. In this respect, the ways of using media tools are diversified and accordingly, the information and pleasure that the individual obtains from the media changes. Now the media is not only an environment for information and news, but also an unlimited environment for socializing, having fun and doing business (Erkal, 2018, p.258). In this respect, digital radio platforms seem to have the capacity to fill an important gap in the field of radio broadcasting. One of the prominent features of digital radio platforms; communication with the target audience is realized through a screen. These platforms, which are called digital radio platforms, are actually digital environments built as a website. The important point here is that the communication process that develops between the radio and the audience (target audience) takes place over an intense visual-based website (Taş, 2020, p.114). Although the relationship between the audience and the radio was limited in traditional radio broadcasting, it was out of question for the audience to watch the content of the radio broadcast through visuals. This situation changes completely on digital radio platforms and takes a new dimension. Now, there is a radio that can be watched and presented visually through the design. In this respect, it is an important point how digital radio platforms are related to design. Based on this approach, it is possible to list the features of digital radio platforms as follows.

Features of Digital Radio Platforms;

- Speed
- Publication and Product Diversity
- mobility
- Individuality in the Audience
- New Commercialization Opportunities
- Sectoral Development
- Design Focus
- Data Driven
- Openness to Interaction
- Information Diversity
- Multiple Access
- Addiction to Technology
- Sustainability
- Global Impact
- National Impact

The fact that digital radio platforms provide content that can be watched and interacted with also changes the user's relationship with the radio. While using these platforms, the user enters into versatile media consumption processes, especially depending on the visual content. Listening to music or preparing a list of favorite songs push the user to take various actions while using these platforms. Because the fact that communication, which is one of the most important features of digital media, is versatile, includes the individual in the management of the communication process (Bonini & Monclús, 2015, p.12-13). In digital radio platforms, the individual not only consumes content, but also becomes a producer in relation to the platform. As an example of this situation; When using the digital radio platform, many types of digital action can be given, such as scoring the popular content, creating and sharing the favorite playlist. A visual content or an advertisement displayed on the web homepage can activate and interact with the user. In this case, the individual who is a consumer can also take the position of a media producer and enter an interaction-producing approach by making the radio experience multidimensional.

Popular Digital Radio Platforms

When the current development of digital radio platforms is examined, it is seen that they have increased their activities in digital media. As a result of the digitalization processes, new media production models develop in radio broadcasting, and there is a diversification in the relationship of radio with the audience. New models such as podcast broadcasting, personalization, individual broadcasting and advertisement presentation also affect the positioning of radio broadcasting in the media, enabling today's people to develop new approaches in using radio as a tool at the point of media consumption. Thanks to internet access, access to radio becomes easier and an increase is observed in the volume of the audience at the point of individual media consumption. One of the main reasons for this increase is that digital media has a content structure based on visuals. Because while in traditional radio broadcasting, there is a presentation of audio and speech-based content combined with music, there is a multimedia content presentation that combines video pictures and sounds in digital radio platforms (Özel, 2018, p.588). Moreover, these contents are open to interaction and versatile. This situation provides an increase in the number of media structures that broadcast radio from digital platforms and increases the share of radio in the cake in terms of the media sector.

Today, the number of digital radio platforms is increasing day by day, and at the same time, it is seen that radio broadcasting is diversifying in terms of content. It is known that many digital radio platforms are currently operating locally, nationally and internationally, but since broadcasting takes place over the internet, which has no borders in digital radio platforms, the local, national or international status of the radio loses its importance. This situation can explain the definition of the digital media world as the global media world at the same time. Based on this approach, it can be said that today's radio audience creates a new media consumer profile with a global perspective.

When the issue is evaluated on the scale of Turkey, it is seen that many digital radio platforms operate in digital media. Although the headquarters of some of these radios are abroad, they can easily reach the audience in Turkey because they broadcast over the internet. Digital radio platforms operating in Turkey can be classified as radios affiliated to a certain media group or as independent digital radios. Listed below are some of the digital radio stations broadcasting over the internet.

- Radyo TRT
- TRT Dinle
- Turkuvaz Radyolar
- TuneIn Radio
- Karnaval Radyo
- Heart Radio App
- Radyo Kulesi
- XiiaLive
- AccuRadio
- Simple Radio
- AndroTurk Radyo
- PowerApp
- Kral FM
- Number 1
- Süper FM
- SlowTürk
- Radyo Fenomen
- Alem FM
- Hits Radio 1

Interaction Of Digital Radio Platforms With Design

It is seen that design is at the center of the processes in shaping the digital visual culture. Especially in digital media production, design plays an important role in creating media content and delivering it to the target audience. In today's digitalization processes, the creation of information through visual data gains importance. This situation also reveals the transformation of visual data into information in the media and the relationship between the design field and technology-referenced communication models in the last period. Design is now at the center of digital media processes and plays an important role in delivering the message or content to the target audience in an effective and efficient manner.

There are various reasons why the field of design is so active in today's media. With the widespread use of the internet throughout the world, the diversity in media tools and production has increased, and accordingly, a new digital fiction world has started to emerge in media environments through visuality. Now, while media communication tools incorporate many new technology-based systems, they also shape the profile of the new media consumer of the digital age. Thanks to smart and fast new media technologies, the media consumer has started to have a say in determining the dynamics of the digital media world, by participating in the process much more actively. It is seen that design plays a decisive role in all processes in the new media order, which expands on a global scale through the individuality created by digital capitalism. It is actively involved in the management of design processes in all media production areas, from digital news production to radio broadcasting, from new generation TV program production to e-mail journalism. In this respect, design is always involved in raising the visual literacy level of the society and transforming the visual culture at certain standards.

In terms of digital radio platforms, design plays an important role in the construction of radios' websites, mobile applications and their corporate visibility in the media. All sub-components of the design are involved in the effective presentation of radio broadcasts and content to the audience. Now, design is the leading actor in content production and managing the interaction process.

Purpose

Breaks in digital visual culture change the relationship of today's people with the media, revealing a new consumer profile in media consumption. Radios get their share from this rapid transformation that takes place in all sub-dynamics of digital media. The point that radio broadcasting has reached depending on technology is digital radio platforms that enter our lives in the virtual world with internet access. It can be said that the discipline of design plays an important role in creating these platforms and presenting them to the audience as a radio.

In this study, popular radio platforms, Karnaval Radyo and TRT Dinle, operating in Turkey in the field of digital radio platforms and being one of the pioneers of the digital radio platform, have been examined from a design point of view. The aim of the study is to analyze the design of these platforms through categories and to determine the level of influence of the design on the radio and new digital audiences through these platforms. In this framework, the Design Empathy technique was used to determine the categories. Based on the Design Empathy approach, it has been tried to find answers to the following questions about TRT Dinle and Karnaval Radyo platform.

Q1. How are Digital Radio Platforms presented to the new digital audience in terms of design discipline?

Q2. From what points does the design discipline, together with its sub-components, affect the construction of these platforms?

Method

In the study, the websites of TRT Dinle and Karnaval Radio, which are digital radio platforms, which are active on the internet, were preferred for analysis. Platforms deliver their publications to their users online via their websites. At the same time, mobile applications of these platforms are also in question, and mobile applications are not included in the scope of the study. By evaluating the sub-components of the design discipline in five different categories in the analysis of platforms, it has been tried to determine what role the design plays in these platforms. Preferring visual elements as evaluation criteria in the evaluation of content created in the digital space is important in terms of determining the position of design in digital visual culture (Palfrey & Gasser, 2017, p.149).

The study is a descriptive research and content analysis was used as a method. Content analysis, which is applied based on the qualitative research model, includes obtaining data over the determined categories by evaluating the visual, auditory, symbolic and semantic indicators of the media content and displaying these data with tabular method (Şahin, 2020, p.42).

In this context, five different categories were created in the study. These are in terms of design; Reflection Level of Corporate Visual Identity, Level of Visualization, Level of Personalization, Level of Interaction and Marketing / Commercial Presentation Level. These categories were divided into sub-categories within themselves and data were obtained in different layers. These sub-categories are;

- *Level of Reflecting the Corporate Identity of the Radio: Logo Type / Corporate Color Representation, Level of Information about the Institution of the Platform, Language Option.*
- *Level of Visualization: Style, Use of Visuals, Use of Text, Video Display, Use of Icons-Signs-Symbols.*
- *Level of Customization: Level of Creating List/ Package/ Collection, Level of User's Ability to Manage Content.*
- *Interaction Level: Social Media/ Sharing Accounts Views, Feedback Views, Comments/Scores/Likes Views.*
- *Marketing/ Commercial Presentation Level: Special Product/ Service Content Display, Promotion/ Gift Display, Non-Radio Product/ Service Content Display, User Account/ Membership Display, Advertisement Display, Legal Text Display* (Mayda, 2021).

Sample

In researches on digital media, it is seen that digital radio platforms increase their effectiveness rapidly. According to the results of the RIAK – Nielsen Radio Listener Measurement research, the weekly radio listening rate was 70%, and the daily radio listening time was 193 minutes. In addition, according to the results of the research, it is seen that 60% of the radio listeners prefer digital radio platforms (Karnaval Radio, 2018).

In this study, two platforms are considered as examples in digital radio platforms. The websites of Karnaval Radio and TRT Dinle platforms, which are the pioneers in the field of digital radio platform in Turkey, have been evaluated within the scope of this study. The websites of these two platforms in the sample were evaluated between 01.03.2022 and 12.03.2022 and data were tried to be obtained. There are also mobile applications of digital radio platforms, which are excluded. The reason why the websites of the platforms are preferred in the study is that the platforms transmit their publications and contents in a holistic way through their websites.

The Karnaval.com radio platform has a long history in radio broadcasting and includes more than 30 radio stations. Operating under the name of Karnaval Media Group as a trade name, the radio has achieved significant successes in its field by including the most listened and followed radios in Turkey and in the world (Karnaval Radio). Karnaval Radio, a member of IAB-TR (Interactive Advertisers Association), offers its users a broadcast policy with rich content (radio broadcast, podcast broadcast, video, playlist, archive, etc.) (Karnaval Radio, 2018).

The other radio platform analyzed as a sample is TRTdinle.com. TRT Listen platform stands out as a platform operating under TRT (Turkish Radio and Television Corporation) and reaching audiences under TRT Radios. The TRT Dinle radio platform was established in 2020 with the aim of delivering the broadcasts of TRT radios live to the audience. Listen to TRT; It has very rich content such as live radio broadcast, podcast broadcast, favorite list creation, broadcast library, audio book broadcast, radio theater at the point of broadcast and product variety (TRTDINLE). As a public digital radio platform, it implements a broadcasting policy that appeals to different audience groups (Wikipedia, 2021).

Categories And Data Collection

The categories for data collection in this study; It was created over the sub-components of the web interface designs of the platforms by taking the broadcasts and contents offered by the radio platforms as reference. The sub-categories are the categories that have been revealed by the application of the Design Empathy technique. While creating these categories, the impact power of the design discipline in visual communication was taken as reference. By analyzing the web interfaces of the platforms through visual elements, it has been tried to determine in which processes the design is effective in the relationship between the user and the radio platform (Glantz, 2016, p.39-45). It has been tried to analyze how radio platforms offer brand positioning, mobility, interactive radio experience, personalization of radio and new commercial expansions of radio broadcasting through design.

Table 1. Categories And Data

Categories	Sub Categories	karnaval.com	trtdinle.com
The Level Of Reflecting The Corporate Identity Of The Radion	**Logo Type/Corporate Color Representation**	Platform Logo Reveal: Iconic+Typographic, Red-Black Logo Display of Radios: Symbolic + Iconic+Typographic Color: Miscellaneous	Platform Logo Reveal: Typographic, Dark Navy Blue Logo Display of Radios: Symbolic + Typographic Color: Miscellaneous
	Level of Informing About the Institution of the Platform	In the Footer section on the main page: Visual + Textual + Iconic	None
	Language Option	There is	None
Level Of Visualizatıon	**Style**	Contrast Value: High, Dynamic, Live, Multi view	Contrast Value: High, Static, Live, Multi view
	Use of Visuals (photos, illustrations, etc.)	Too intense+ Multi-impression	Intense + Multi-impression
	Video Display	There is + Multi-impression	None
	Text-Text Usage	Low intense	Low intense
	Using Icon/Sign/Symbol/Emoji	Intense	Intense
Level Of Customizatıon	**Ability to Create List/Package/Collection**	My Favorites / View: Visual + Textual Location: On the user profile page	My Library, My Favorites, Listening history / View: Visual + Textual Location: In the main menu
	User's Level of Ability to Manage Content	See Lyrics, Change Playback settings / Display: Iconic + Textual Recording: Podcast	Ability to change / Display playback settings: Iconic + Textual Save: None
Level Of Interaction	**Social Media/ Sharing Accounts Display**	Impression: Iconic + Textual Location: On the main display screen	Impression: Iconic + Textual Location: On user profile page + content pages
	Feedback Display	Notation: Textual Location: Main menu + Footer section (footer)	Notation: Emoji + Textual Location: On the main page
	Comment/Score/Like Display	Likes / Views: Iconic	Likes / Views: Iconic
Marketing / Commercial Presentation Level	**Special Product / Service Content Display**	Your Special Page / Display: Visual + Iconic + Textual	None
	Promotion / Gift Display	Win Page/ Display at Carnival: Visual + Iconic + Textual	None
	Non-Radio Product/Service Content Display	News + My Carnival Partner/ Screening: Visual + Iconic + Textual	TRT TV Programs / Shows: Visual + Iconic + Textual
	User Account / Membership Display	Iconic + Textual	Iconic + Textual
	Ad Display	There is + Miscellaneous + Multi view	None
	Legal Text Display	Notation: Textual Position: In the footer	Notation: Textual Location: On the user profile page

Results

In the study, the websites of the digital radio platforms in the sample were analyzed and data were tried to be obtained with 5 main categories and 19 sub-categories. These data were obtained based on the basic elements of the design.

In the category of Reflecting the Corporate Identity of the Radio; It has been tried to determine how the platforms show themselves and their institutional structures through the design. In this category, the data was obtained through the reflection of the corporate visual identity, information and language option. In terms of corporate logo display, it can be said that Karnaval Radio has a stronger visual effect than TRT Dinle as a logo type. At the same time, in terms of the colors used in the logo, it is seen that Karnaval Radio prefers multiple colors as the corporate color. In addition, it is seen that Karnaval Radio makes a multi-faceted informative display in the footer section of the website, in order to inform the user about the radios themselves and their institutional structures. TRT Listen platform, on the other hand, does not provide any information about itself to its users. This can be explained by the fact that the TRT Listen platform is a platform operating within the public radio, TRT Radios. At the language option point, it is seen that Karnaval offers a language option (English) to its users while demonstrating its corporate structure. The fact that the radio is a private radio and adopts the policy of broadcasting on a global scale can explain the choice of language.

In the study, which was put there with the Design Empathy technique, data was tried to be obtained over five sub-categories in the

Visualization Level category. When platforms are evaluated in terms of design style; It is seen that Karnaval Radio is more lively and dynamic than TRT Dinle in terms of web-interface design. This situation; It can be explained by the broadcasting policies of both platforms and their positioning in the field of digital radio platforms. Private sector-Public separation manifests itself in the style-style heading. When the visual usage rates of the platforms are examined, it has been determined that the Carnival uses much more visuals. At the point of video display on platforms, it is seen that there are no videos on TRT Dinle, but videos are shown in the contents and advertisements of the Carnival platform. This situation; It affects the interaction of the carnival platform with the audience and the enrichment of its content. In terms of Text Usage, it is seen that both platforms use typography less and instead emphasize visual elements more. In the use of Icon-Symbol-Emoji, it can be said that both platforms heavily use these display tools. This situation; It can be explained that the platforms are also a website and are built with a web architecture logic.

In the Personalization Level category; Data were tried to be obtained over two sub-categories. There is a situation where users interfere with the content personally while using the radio platform. Creating one's own music list and being able to perform personal actions such as my favorites are among the most important topics in the digital media world. From this point of view, it is seen that the TRT Dinle platform offers more customization options than Karnaval. This variety is advantageous for the user. In terms of Managing the Content, it is seen that Karnaval offers more options than TRT Dinle. At the point of saving the content (song, podcast, video, etc.) of the user, there is only the option to save the podcast in Karnaval. Especially songs, videos, programs, etc. The inability to record the content can be explained by legal or commercial reasons such as copyrights.

By analyzing three sub-categories in the Interaction Level category of radio platforms, it has been tried to determine what kind of interaction the platforms offer their users in digital processes. In this context, when the ways in which the platforms present their Social Media accounts to their users, it has been determined that both platforms display their accounts in an iconic and textual way. In this sub-category, unlike Carnival, TRT Listen platform displays its social media accounts in two different locations. It has been determined that the platforms make textual displays on two platforms at the point of receiving feedback from their users, and the TRT Dinle platform uses emojis in its display as an extra. In terms of the location of the screenings, it is seen that the Carnival shows in two different locations. It is seen that users make an icon display on both platforms at the point of indicators where they can express their thoughts about the content such as comments, likes and ratings while using the platforms. In terms of the level of interaction of both platforms, it is seen that the platforms visually guide the user to experience the radio experience in digital interaction.

It can be said that digital radio platforms have strengthened their position in terms of commercial activities in digital media. Based on this situation, it was tried to obtain data with six sub-categories in terms of showing the commercial activities of both platforms in the sample through their websites. It is seen that only Carnival performs in terms of providing special content or services to the users of the platforms. It can be said that only Karnaval performs in the presentation of encouraging content such as promotions or gifts to users of the platforms. In both sub-categories, it is seen that Karnaval performs in a versatile way. As for the different content that the platforms offer to their users outside the field of radio; It is seen that Karnaval offers content such as news content and business partnership in the field of advertising. On the other hand, TRT Dinle presents the audio content of some of the programs of TRT on TV channels. It has been determined that users make iconic and textual displays on both platforms in terms of membership and account management. In terms of advertisement display, it is seen that Karnaval displays advertisements in multiple and various ways. On the TRT Dinle platform, advertisements are not displayed. This situation can be explained as the private sector-public enterprise differentiation. Advertising display stands out as the most important revenue heading among the revenue generation models of radio platforms in general. The fact that the platforms are also a website requires them to present some rules and standards in terms of legal ground and commercial activities. From this point of view, when this sub-category is evaluated, it is seen that both platforms display textual displays.

Conclusion

Depending on digitalization, it is seen that the media rapidly transforms and incorporates technology-referenced virtual systems. In terms of radio broadcasting, it can be said that the radio transforms rapidly within the digital media and reaches the audience through the virtual world. While broadcasting takes place over frequencies in traditional radio broadcasting, nowadays, thanks to internet access, it is seen that radios reach the audience from the virtual environment. This situation can be shown as the cause of the emergence of digital radio platforms. Now, besides a radio that is only listened to, it is also a radio that can be watched and interacted with.

It can be said that digital radio platforms offer many advantages in terms of content richness and area of influence in radio broadcasting. It is seen that digital radio platforms present very different expansions both for themselves and for the audience in many topics such as broadcast diversity, interaction, and commercial return. When the subject is considered in terms of digital media consumption, it can be said that digital radio platforms feed the relationship between radio and today's digital people in a versatile way. A radio broadcast now has the potential to serve as a content that can have a global impact rather than just a message.

In this study, digital radio platforms were tried to be analyzed with the Design Empathy technique through two examples. By approaching the websites of the digital radio platforms in the sample through various categories through the basic elements of the design discipline, emotional, semantic and logical analyzes of the platforms in terms of visual semiotics were tried to be made. The aim here is to examine how the radio content that the platforms offer to the audience is visually presented in a design way. When the data obtained through the categories are examined, it can be said that both platforms reveal new approaches in terms of radio broadcasting. It is seen that the content of the radios is presented to the users effectively, especially by using visual elements. Thanks to the internet access, it is seen that while the platforms deliver their broadcasts to the audience, they enable all sub-components of digital media to deliver their content to their users in an open way for interaction. It can be said that radio platforms also use many advantages brought by the virtual environment. It is seen that platforms display a versatile design through many topics such as broadcast and content diversity, speed, interaction, feedback, revenue generation models, and sectoral impact.

In the light of the data obtained as a result, it can be said that digital radio platforms have developed themselves rapidly by strengthening their position in digital media. However, it is seen that the diversity in consumption areas in digital media has increased especially due to the change in digital visual culture, and accordingly, the share of radio broadcasting in the cake is growing in sectoral terms. The situation of increasing the effectiveness of digital radio platforms is also understood from the data obtained through the categories in this study. Especially in terms of broadcasting and content diversity of radios, it is seen that they operate seriously on digital platforms. In terms of design, it can be said that they have implemented a publishing policy in a way that will attract the attention of the audience with their colorful, lively, dynamic and interactive web pages. Visuality is at the center of the processes in these platforms and contributes to the user's relationship with the radio from different aspects. When the subject is evaluated in terms of the future of radio, it can be said that digital radio platforms can shape digital media much more effectively. It can also be envisaged that the radio will not only serve as a means of listening to music or reaching news, but will also serve as a basic media tool that provides comfort to human life and creates information in different fields within the digital culture. In this respect, in the digital world, in the future, radios will become a much more watched media platform.

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Received Date: 05 May 2022 I Accepted Date: 26 June 2022

OPUS Journal of Society Research

RESEARCH ARTICLE

Examination of Separation-Individuation Characteristics on the Relationship between Fanaticism and Agression in Young Adults

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July 2022
Volume:19
Issue:48
DOI: 10.26466//opusjsr.1107721

Citation:
Eker, E. and Akdeniz, B. (2022). Examination of separation-individuation characteristics on the relationship between fanaticism and agression in young adults. *OPUS– Journal of Society Research, 19*(48), 603-616.

Abstract

This study addresses the effects of separation-individuation processes and fanaticism levels of young adults on the emergence of aggressive behavior. The sample group consists of 377 young adults between 18 and 22 of age. The participants are asked to respond to the Separation-Individuation Test of Adolescence (SITA), Fanaticism Scale for Football Fans (FSFFF), and the Buss-Perry Aggression Scale (BPAS). Chi-square, Pearson Product-Moment correlation analysis, One-way ANOVA, and moderation analysis were used for the statistical analysis. The physical and verbal aggression scores of the males are higher than the female participants. The separation-individuation scores of female participants are higher than that of the male participants. The fanaticism levels and physical-verbal aggression, and anger of the participants are correlated positively. Finally, the separation-individuation level is observed to have moderating effect on the correlation between aggression and fanaticism. The findings show that the fanatical supporters carry their self-needs to the team-self due to the problems they experience in the process of separation from their parents while engaging in aggressive behaviors. Therefore, considering the separation processes of individuals with their parents in studies aimed at preventing aggressive behaviors due to fanaticism will increase the success of the studies.

Keywords: *Fanaticism, Separation-Individuation, Aggression, Young Adulthood.*

Öz

Bu çalışma, genç yetişkinlerin ayrışma-bireyleşme ve fanatik davranışlarda bulunma seviyelerinin saldırgan davranışların gelişimine olan katkılarını araştırmayı hedeflemektedir. Araştırmanın örneklemini 18-22 yaş aralığındaki 377 genç yetişkin katılımcı oluşturmaktadır. Çalışmanın veri toplama aşamasında katılımcılara Ergen Ayrılma-Bireyleşme Ölçeği (EABÖ), Futbol Taraftarı Fanatiklik Ölçeği (FTFÖ) ve Buss-Perry Saldırganlık Ölçeği (BPSÖ) sunulmuştur. Verilerin analizinde, ki-kare, Pearson Momentler Çarpımı korelasyon analizi, tek yönlü varyans analizi (One-way ANOVA) ve moderasyon analizi kullanılmıştır. Erkek katılımcıların fiziksel ve sözel saldırgan davranışta bulunma düzeyleri kadın katılımcılardan, kadınların ayrışma-bireyleşme puanları erkek katılımcılardan yüksek bulunmuştur. Çalışmada genç yetişkinlerin fanatiklik düzeyi ile fiziksel-sözel saldırganlık ve öfke duygusu arasında pozitif yönde anlamlı ilişki bulunmuştur. Ek olarak, saldırgan ve fanatik davranışlar arasındaki ilişkide ayrışma-bireyleşme düzeyinin düzenleyicilik etkisine sahip olduğu gözlenmiştir. Çalışmanın bulguları, fanatik taraftarların saldırgan eylemlerde bulunurken anne-babadan ayrışma süreçlerinde yaşadıkları sorunların etkisiyle benlik ihtiyaçlarını takım benliğine taşıdıklarını göstermektedir. Bu bulgulardan yola çıkarak, fanatikliğe bağlı saldırgan davranışların önlenmesine yönelik çalışmalarda, bireylerin anne-babaları ile ayrışma süreçlerini de göz önünde bulundurması çalışmaların başarısını arttıracaktır.

Anahtar Kelimeler: *Fanatizm, Ayrışma-Bireyleşme, Saldırganlık, Genç Yetişkinlik.*

Introduction

Football is one of the major sports with a great extent of influence on communities. It is embraced globally thanks to its unifying aspect, which is considered positive, whereas the enthusiasm of fans, such as fanaticism, may lead to incidents of violence. Fanaticism, and the aggression it causes, have devastating implications throughout the world. This study aims to analyze the correlation of fanatic individuals' tendency towards aggression to their individualization processes.

Aggression refers to behavior aimed at harming another living being that is trying to avoid a harmful behavior (Baron and Branscombe, 2012). According to Weinberg and Gold (2011) aggression requires action. It also refers to physical or psychological damage. Furthermore, aggression is not considered to be an emotion or thought but rather understood as an observable behavior. Aggressive cognitions and aggressive affect can serve as important precursors of aggressive behavior. Moreover, for a behavior to be considered as an aggressive, the act must be done with intention and must be aimed to harm another. These lead to the conclusion that accidental harm does not count as aggression (Allen and Anderson, 2017).

Although violence is sometimes discussed separately from aggression, most experts consider violence as a subset of aggression. Violence is an extreme form of aggression whose purpose is to cause serious physical harm (Bushman and Huesmann, 2010). As with aggression, a behavior need not cause real harm to be categorized as violence. For example, trying to injure someone with a knife but failing to achieve the goal is still considered an act of violence.

Fanaticism involves extreme, uncritical and intense effort for a particular idea or topic. Although the major consideration is with the religion, fanaticism and its implications, have recently been associated with new forms of human behavior such as sports, internet, video games, consumer behavior etc. Specifically, Young adults, driven by the independence from their families, and seeking identity, are vulnerable to many forms of fanaticism because of their intense desire to feel unique and chosen, their limited self-awareness and their social satisfaction (Levesque (Ed.), 2011). Further, an ongoing brain development (Çelik et al., 2008), the inability to cope with uncertainty and anxiety, and the tendency to act impulsively, lead the young adults to consider fanatic beliefs an essential option to feel secure (Thielsch, Andor, & Ehring, 2015). Bessant (2008) reported that the the increasing fear and unrest in modern societies, caused by factors such as wars, terrorist activities, and pandemics, which disturb the perception of security, also increase the tendency of young adults to seek shelter under fanaticism.

For young adults, sport fanaticism results from the link between the desire tobe unique (through "premium" belongings), the actual status conflicting the self-perception, and peer influence (Chan and Wang, 2015). Further, unlike other domains of fanaticism (consumption, internet gaming, religion), sports fanaticism incorporates another factor. Sport fanaticism has been shown to be associated with family fanaticism inherited from one's parents, which is one of the only experimentally known forms of inherited fanaticism (Dwyer et al., 2016).

All forms of fanaticism tend to be cycles of feedback that work with teens' self-perceptions to reinforce their behavior, with an intense involvement, the satisfaction achieved through that involvement and sharing experiences (Zhang et al., 2015). Fans' interest in football can be categorized as: the fan group called "temporary fans" who support their teams only under favorable conditions; the second group is only the fan group supporting the national team in their geographical area. Another group is the dedicated fans, this group includes fans who support their team regardless of geographic distance. This group called fanatics are very loyal to their teams. The last fan group is called dysfunctional group. Such groups center their identity over any sense of attachment and they can easily engage in anti-social behaviors or acts of violence (Dalpian et al., 2014). In addition to fanaticism, the concept of hooliganism should also be considered in terms of violent and aggressive behaviors.

The term hooligan originated in England and by definition, it means physical violence or damage to property (Bodin and Robene, 2014). As Oojen (2012) states, that although it is a more common notion to witness hooliganism and violence in soccer competitions, such tendencies are also seen in other professional sports branches as well. Within the context of including violence behaviors, hooliganism is considered as an important identity problem within the scope of individuation, loss of identification, de-identification and having a single identity. As a matter of fact, individuals and groups who do not have identities that represent them enough and who cannot express themselves enough freely in this context tend to violence and hooliganism (Spaaij, 2008).

Van Hiel et al. (2007), reported that fanaticism, which is the most extreme of the tendencies towards football, increases the possibility of individuals' showing aggressive behaviors and football fans do not hesitate to reveal violent, destructive and damaging behaviors for the sake of the team they support. Fanaticism refers to desensitization towards all other groups in order to focus only on group norms so that the individual can preserve their unique identity. In terms of fanaticism, individuals start to accept all of the values and norms of the group unconditionally and without criticizing, they do not doubt that any of the behaviors they do is correct, they despise the value judgments of other groups, and they start to approach the members of other groups without tolerance (Cieslik and Verkuyten, 2006).

Lock and Funk (2016) suggested that team identity affects many attitudes and behaviors. Grasping the concept of a team is imperative since it highlights the notion of the individuals' identification with a team and affects attitudes and behaviors (Lock and Heere, 2017). According to the theory of social identity, the individual is believed to derive a greater sense of self from the perceived awareness, value and emotional importance of belonging to a group (Tajfel et al., 1979). Social groups that individuals perceive themselves to belong to contribute to their self-image. This is accomplished by classifying themselves with group members on the one hand and distinguishing themselves from outgroup members on the other. When a social identity is unfavorable, individuals try to make the ingroup positive or leave the group if possible (Delia and James, 2018). These various identities about the team (presence of a sport, family, friends, groups followed) develop individuals' sense of self.

Separation-Individuation

Separation-individuation begins with the establishment of the perception of being an individual by separating from the mother, who is the primary love object. The process then moves on to the acquisition of a specific individuality (Mahler et al., 2003). Major developmental challenges in early childhood and adolescence/ emerging adulthood are first and second stages of separation-individuation (Blos, 1967). In both stages, the child tries to stay connected to significant others while still trying to avoid dependency on them. Therefore, this process recommends unravelling a complex interaction between independence and relatedness (Allen et al., 1994; Grotevant and Cooper, 1986).

If individuals cannot successfully negotiate this developmental task, they may suffer from maladaptive developmental results such as increased levels of depression symptoms and indecision (Stey et al., 2014), higher externalizing problems (Delhaye et al., 2012) career (Downing and Nauta, 2010).

An inherent challenge for teenagers in dealing with separation-individuation is finding a balance between intimacy and distance in their relationship with their parents (Xiang et al., 2020). The distance to be established with parents is closely related to the identity development of adolescents. A healthy identity development is possible with a mental structure that has a good level of functioning. If separation does not occur, it means that self (ego) functions are also weak. Kernberg (2010) emphasizes the following three features while explaining the concept of self-weakness in the tables where personality development is not completed: 1- blurring of self-boundaries, 2- lack of impulse control and 3- impaired sublimation ability. The features that are indicative of this weak self (ego) functioning explain the ability of fans to draw a boundary between their teams and their own identities (1), their tendency to aggressive and destructive behaviors due to failure in anger control (2) and their attributing divine qualities to people and objects in the outer world by exaggerating their good and bad qualities artificially and pathologically (3).

Correlation between separation-individuation and aggression in fanaticism

Externalization problems stated by Delhaye et al. (2012), and the distance caused by a healthy closeness that cannot be established with parents facilitate the tendency of young people to fanatic groups. High levels of aggressive behavior in these groups also constitute another aspect of externalization problems. A healthy sense of identity indicates the formation of a balanced identity in which individuals will feel valuable, form satisfying attachments with others and won't need to overidealize the self and object representations (Blum, 2004). Reconvergence sub-period explained by Mahler in separation-individuation theory may provide a suitable perspective for describing aggression as a mechanism that fanatical supporters develop in order not to lose their ego boundaries.

The attachment of fanatics to their team like it is a motherly being, the fact that they index their low self-esteem to their team's success and their mastery of transferring unattended aggression to others in the outside world in case of failure and threat coincide with the mentioned reconciliation process (Mahler et al., 2003).

Eskiler et al. (2011), reported that fanatics of a team considered themselves as an extension of their team and the thought and expression of "I am a supporter of this team" is the center of their self-concept and they felt that they were better people than the supporters of opponent teams. Fanatics appreciate their self, which they consider as worthless, by coming into contact with or entering into the representation of their team. The primitive idealization defense mechanism used here means the supernatural glorification of a person, group or ideology that is unquestioned, blind and unrealistic (Freud, 1966). However, every primitive idealization is followed by devaluation mechanism. These supernatural qualities require the ascribed person to be demoted from the level of perfection to the level of nothingness in case of showing the slightest human frailty (McWilliams, 2011).

Fanatics who add values to their self when their team is successful experience the state of goodness and worthiness which cannot be kept alive in the face of failures, as an absence or nothingness. This intolerable mood is quickly transferred to others (to the supporters of opponent teams and to people they have social relationship with) and others are experienced as individuals who deserve to be attacked.

On the grounds of these reviews asserting that aggressive behaviors may occur as a result of the failure of separation-individuation in fanatics, the hypothesis of the present study are as follows:

The level aggression is higher in males when compared to females.

Separation-Individuation scores of females are higher than that of males.

Aggression levels of fan groups differ significantly.

The level aggression increases as the level of fanaticism increases.

Separation anxiety decreases as the level of fanaticism increases.

The level of separation-individuation has a moderating effect on the correlation between aggression and fanaticism.

Method

In this study, relational survey method was used to examine the relationship of fanaticism level with separation-individuation and aggressive behavior. Data were collected from participants who agreed to participate in the study voluntarily by using online form.

Sample

Sample of the study consists of 377 young adults between the ages of 18 and 22 who were university students during the spring term of 2018-2019 academic year. The sample was determined with convenience sampling method. 53.8% (N=203) of the participants were female, while 46.2% (N=174) were male. Table 1 shows the descriptive information of sample group.

Data Collection Tools

Demographic information form, Fanaticism Scale for Football Fans (FSFF), Individuation-Separation Scale of Adolescence (ISSA) and Buss-Perry Aggression Questionnaire (BPAQ) were used in the study as data collection tool.

Demographic information form: This form prepared by the researchers was created by including items on the socio-demographic characteristics of the participants, the teams they supported and the participants' attitudes about this team

Fanaticism Scale for Football Fans (FSFF): Cronbach Alpha reliability coefficient of the scale, which was developed by Taşmektepligil, Çankaya and Tunç (2015) to measure the fanaticism levels of individuals was found as .88. While high scores from the scale showed the participants were football spectators, low scores showed that fanaticism level increased. The scale consists of two subscales; tendency of though and action oriented to violence (e.g., 'Most of the time, I cheer against the players of the opponent team or the referee from the tribune') and institutional belonging (e.g., 'I go to a game with outfits that show the symbols of my team'). In this study, scale scores were evaluated only on the total score. In compliance with the original study, the participants scoring between 13-21 were classified as "fanatics"; those scoring between 22-30 were classified as "fans", and those scoring between 31-52 points were classified as "football lovers". The scale is a four-point Likert and consists of a total of 13 items.

Individuation-Separation Scale of Adolescence (ISSA): Individuation-Separation Scale of Adolescence (ISSA) developed by Levine, Green and Millon (1986) to measure the individuation-separation capacity of individuals between the ages of 18 and 22 was created by considering Mahler's Individuation-Separation theory and making use of adolescence Dynamics. The scale was adapted into Turkish by Aslan and Güven (2009). The scale consists of three subscales: separation anxiety (separation from significant others-mother, father, sibling, etc.; e.g.,. 'I frequently worry about being rejected by my friends'); engulfment anxiety (parents' controlling and limiting children's life; e.g., 'Sometimes, my parent are so overprotective, I feel smothered), and need denial (the feeling of not being wanted by mother, father, sibling, etc.;e.g., I don't really need anyone). Internal consistency (Cronbach alpha) coefficients of the subscales were found as .82 for need denial, .75 for separation anxiety and as .79 for engulfment anxiety. The scale is a 5-point Likert and consists of a total of 31 items.

Buss-Perry Aggression Questionnaire (BPAQ): This scale, which was developed to measure the aggression levels of individuals, was initially created as hostility inventory by Buss and Durkee (1957). Later, Buss and Perry (1992) updated the inventory and reintroduced as Buss-Perry Aggression Questionnaire. The scale was adapted into Turkish by Madran (2012) and the Cronbach Alpha reliability coefficient of the scale was found as .85. The scale consists of four subscales as physical aggression (e.g., 'I have become so mad that I have broken things'), anger (e.g. 'Some of my friends think I'm a hothead'), hostility (e.g., 'I am suspicious of overly friendly strangers') and verbal aggression (e.g., I can't help getting into arguments when people disagree with me'). The scale is a 5-point Likert and consists of a total of 29 items.

Data Analysis

In the analysis of study data, first normality assumptions were tested for data set and normality assumptions were found to be met. Descriptive statistics were then examined and Chi-square was used in the analysis of the relationship between categorical variables, Pearson Moments correlation analysis was used in the analysis of the relationship between continuous variables, independent samples t test and one-way Anova were used to compare means between groups. In addition, moderation analysis was used to test the moderator effect between the groups. The analyses were conducted with IBM SPSS.24 and PROCESS MACRO statistical programs.

Results

Descriptive Statistics:

Table *1* shows the distribution of the participants by gender, team supported, frequency of watching game in the stadium and level of fanaticism

Table 1. Distribution of the participants by gender, team supported, frequency of watching game in the stadium and level of fanaticism

		N	%
Gender	Female	203	53.8
	Male	174	46.2
Team supported	BJK	70	18.6
	FB	124	32.9
	GS	116	30.8
	TS	17	4.5
	Other	21	5.6
Frequency of watching game in the stadium	More than once a month	38	10.1
	Once a month	26	6.9
	Once every two-three months	56	14.9
	Once a year	75	19.9
	Never	181	48.0
Level of fanaticism	Football fan	327	86.7
	Supporter	32	8.5
	Fanatic	18	4.8
	Total	377	100

Comparisons between groups

The comparison between the groups was completed using independent sample t-test and one-way analysis of variance (one-way ANOVA)608et ek According to the results of independent sample t test, total aggression scores of male participants (M = 83.11, SD = 20.33) were found to be significantly higher than those of female participants (M = 74.70, SD = 19.77; t(375) = -4.06, p<.001). While physical (M = 25.17, SD = 7.37) and verbal aggression (M = 14.82, SD = 4.15) scores of male participants were found to be significantly higher than physical (M = 18.49, SD = 7.06; t(375) = -8.97, p<.01) and verbal aggression (M = 13.92, SD = 3.58; t(375) = -2.28, p<.01) scores of female participants, no significant difference was found between genders in terms of anger and hostility subscale scores (t(375) = -.567, p>.05). When the results of separation-individuation scores were examined in terms of the genders of participants, it was found that women had significantly higher separation-individuation total scores (M = 81.20, SD = 19.31) than men (M = 72.52, SD = 18.60; t(375) = -4.06, p<.001).

The aggressions scores of participants were compared in terms of the teams they supported (BJK, FB, GS, TS and others). According to the results of One-way ANOVA analysis, it was found that the participants in the "others" category had significantly higher fanaticism levels (F(4,343)=5.491, p<.001) and physical aggression levels (F(4,343)=4.099, p<.01). No significant difference was found in terms of total aggression level (F(4,343)=2.029, p>.05). It was found that the participants who stated they would be very unhappy when they could not watch the game of the team they supported had significantly higher aggression total scores than the other participants (F(4,372)=7.465, p<.001).

When the participants' aggression scores were compared in terms of their fanaticism levels (football spectator, team supporter, fanatic), it was found that physical aggression, anger and verbal aggression scores of the participants differed significantly in terms of their fanaticism levels (F(2,374)=34.632, p<.001; F(2,374)=7.219, p<.01; F(2,374)=4.346, p<.05, respectively).

Table 2. Comparison of participants' aggression scores in terms of fanaticism levels

	Levene p	Sum of Sq	df	MS	F	p
Physical aggression	.582	3.697.618	2	1.848.809	34.632	.000
Hostility	.353	101.143	2	50.572	1.106	.332
Anger	.809	572.165	2	286.082	7.219	.001
Verbal aggression	.396	128.385	2	64.193	4.346	.014

Sum of Sq: Sum of Squares; df: Degree of freedom; MS: Mean Square

Tukey HSD paired comparisons analysis was used to determine the source of differences and Bonferroni correction was used to prevent Type 1 error. As a result of the Tukey HSD paired comparisons analysis, it was found that the participants in football spectator category had significantly lower physical aggression scores (M = 20.35, SD = 7.27) than the participants in team supporter (M = 29.22, SD = 7.05) and fanatic (M = 30.20, SD = 8.45) categories (p<.0083); anger scores of the participants in football spectator category (M = 19.16, SD = 6.31) were significantly lower than those of the participants in team supporter (M = 22.86, SD = 6.02) and fanatic (M = 22.67, SD = 6.45) categories (p<.0083); verbal aggression scores of the participants team supporter (M = 16.16, SD = 4.53) were significantly higher than those of the participants in football supporter (M = 14.12, SD = 3.79) and fanatic (M = 14.94, SD = 3.49) categories (p<.0083); aggression total scores of the participants in football spectator category (M = 76.50, SD = 19.54) were significantly lower than those of the participants in team supporter (M = 92.97, SD = 22.16) and fanatic (M = 90.76, SD = 19.77) categories (p<.0083).

Correlation analysis

Correlations between the participants' fanaticism, separation-individuation and aggression scores were examined with Pearson Correlation Analysis (see.
Table 3).

Table 3. Analysis of the correlation between fanaticism, separation-individuation and aggression scores

	1	2	3	4	5	6	7	8
1. FSFF _total	-							
2. BPAQ Physical aggression	-.487**	-						
3. BPAQ Hostility	-.086	.465**	-					
4. BPAQ Anger	-.239**	.634**	.623**	-				
5. BPAQ Verbal aggression	-.201**	.501**	.495**	.564**	-			
6. ISSA Separation anxiety	.135**	-.012	.376**	.189**	.067	-		
7. ISSA Engulfment anxiety	-.053	.128*	.259**	.197**	.109*	.407**	-	
8. ISSA Need denial	.017	.180**	.503**	.383**	.146**	.466**	.426**	-

** p<.05; ** p<.01; FSFF: Fanaticism Scale for Football Fans; BPAQ: Buss-Perry Aggression Questionnaire; ISSA: Individuation-Separation Scale of Adolescence*

When
Table 3 is examined, a negative and significant correlation was found between FSFF and physical aggression, anger and verbal aggression, while a positive and significant correlation was found between fanaticism level and separation anxiety. Considering that higher FSFF scores indicate being a football spectator, it can be said that there is a positive significant correlation between the participants' fanaticism and physical aggression, verbal aggression and anger score, while there is a negative and significant correlation between fanaticism and separation anxiety. On the other hand, there is positive significant correlation between separation anxiety and hostility and anger, between engulfment anxiety and need denial and physical aggression, hostility, anger and verbal aggression.

Moderation Analysis

The moderating effect of separation-individuation in the relationship between fanaticism and aggression was examined with moderation analysis. Bootstrap method was used to analyze whether the moderating effect was significant. Bootstrap analysis was carried out with 5000 samples. It was found that the model including FSFF, ISSA and FSFF*ISSA interaction predicted the aggression levels of the model significantly F(3,373)=45.8580, p<.001, R2= .2694.

It was found that all of the ISSA, FSFF and ISSA*FSFF variables included in the model contributed significantly to the model (see. Table.4).

Table 4. Contributions of the variables included in the model

	b	SH	t	p	LLCI	ULCI
Fixed	78.4126	.9043	86.7153	.0000	76.6346	80.1907
ISSA	.3997	.0468	8.5349	.0000	.3076	.4918
FSFF	-.6939	.0951	-7.2969	.0000	-.8809	-.5069
ISSA*FSFF	.0176	.0045	3.8799	.0001	.0087	.0264

When
Table 4 is examined, it can be seen that ISSA*FSFF interaction is significant t(373)=3,8799, p<.001. This result shows that the moderating effect is significant. It can be seen that the ISSA moderator had a low contribution to the predicted variance, F(1,373)=15.0533, p<..001, R2 change=.0295. However, a single regression equation was obtained with this analysis. Pick-a-point approach and centralized percentile division method were used to analyze this effect in depth. With Pick-a-point approach, it was examined how GZO variable predicted YİBT variable at .10, .25, .50, .75 and .90 percentiles. The results regarding FSFF variable predicting ISSA variable for 5

different percentiles of ISSA variable with Pick-a-point percentile method are shown in

Table 5.

Table 5. FSFF predicting BPAQ variable according to ISSA percentiles with Pick-a-point approach

ISSA	b	SH	t	p	LLCI	ULCI
-25,1962	-1.1361	.1384	-8.2115	.0000	-1.4082	-.8641
-12,1962	-.9079	.1034	-8.7829	.0000	-1.1112	-.7047
-1,1962	-.7149	.0945	-7.5630	.0000	-.9007	-.5290
12,8038	-.4691	.1178	-3.9838	.0001	-.7007	-.2376
24,8038	-.2585	.1565	-1.6522	.0993	-.5662	.0492

Discussion and Conclusion

In this study, examining the separation-individuation characteristics on the relationship between fanaticism and aggression in young adults , 53.8% of the participants were female, while 46.2% were male. In terms of the level of emotional investments of the participants in the team they supported, it was found that 4.8% of the participants fanatics, 8.5% were team supporters and 86.7% were football spectators. While physical and verbal aggression levels of male participants were higher than those of female participants, no significant difference was found between the genders in terms of the levels of anger and hostility. These results are in parallel with the results in literature which reported physical and verbal aggression to be higher in men when compared with women (Palmer-Hague, 2020; Split, Koomen, Thijs, Stoel and van der Leij, 2010; Czech and Kemp, 2010). It is a generally accepted fact that the aggressive tendency of male existence is determined evolutionarily. It is known that since hunting societies, men are more desirous than women in terms of competition, superiority and dominance (Harris, 1996). In addition, there are also studies which reported that rather than performing direct aggression like men, women perform mostly indirect aggression behaviors (such as spreading rumours, defaming and preventing friendships) (Martin and Ford, 2018)

In the study, separation anxiety, engulfment anxiety and need denial levels of female participants were found to be significantly higher than those of male participants. There are studies which report separation anxiety in females is significantly different from males, while there is no difference in terms of engulfment anxiety and need denial (Güven and Aslan, 2010; Parmaksız and Kılıçarslan, 2020). Xiang, Liu, Lu, Bai and Xu (2020) did not find any difference between genders in terms of separation anxiety, engulfment anxiety and need denial; in Doğru-Çabuker and Balcı-Çelik (2019)'s study engulfment anxiety did not differ significantly in terms of gender while separation anxiety and need denial showed a significant difference in terms of gender.

While existing studies show that women experience more problems in separation-individuation processes, they show that individuation processes of changing social roles in the modern world have a less obvious structure. It is a well-known truth that anxiety-based mental problems are more common in women when compared with men. This has both cultural and universal causes. In the modern world, women have to carry the roles of modern life as well as their traditional roles, and women notice a problem more quickly than men and take action for treatment (Bandelow et al, 2015). While Kağıtçıbaşı (2010) reported that boys experienced more separation problems than girls in eastern regions, with a more universal approach, Chodorow (cited from: Appelrouth and Edles, 2010) stated that in addition to separation from the mother, who is the primary attachment object of girls, girls are born with the developmental task of identifying. For this reason, while girls who do not get the appropriate emotional reactions cannot identify with their mothers, they have to separate from show disorders with excessive attachment characteristics (depression, masochism), boys are born with the developmental task of separating from their mothers who is the primary attachment object but identifying with their fathers. However, when boys cannot separate from their mothers, they are more inclined to disorders that show extreme isolation (psychopathy, schizoid states).

In the assessment made on the aggression level in terms of the team participants supported, it was found that fanaticism levels and physical aggression levels of the participants who chose the option "others" which were teams other than the teams most supported in the country were significantly higher (p<.05). As cited by Gültekin (2007) from Simmel, individuals know each other more closely in small groups and they have similar thoughts. For this reason, members of small groups are more likely to advocate radical thoughts than large groups. While the perception of danger caused by not being in the majority causes members to adapt a more grandiose and defensive attitude, the lack of diversity in small groups can also prevent a realistic evaluation (Singh and Rukta, 2018).

Aggression, anger and total aggression levels of football spectators were found to be lower than those of team supporters and fanatics. This is consistent with the literature which states that individuals with a high emotional investment in the team they support are more generous in displaying aggressive behaviors (Milojevic, Simonovic, Jankovic, Otasevic and Turanjanin 2013; Koçer, 2012). In addition, another interesting data is that verbal aggressive scores of team supporters were significantly higher than those of football spectators and fanatics. This shows that football spectators who do not include the issues related with the team they support in a personal area do not develop any anger reactions, while team supporters cannot be indifferent to issues about their teams. However, although team supporters react to issues related to their teams with anger, they cannot turn this into behavioral violence such as fanatics (Haidt, Seder and Kesebir, 2008). In this respect, it can be said that team supporters have healthier separation-individuation processes that fanatics.

Interestingly, it was found that participants with high level of fanaticism have decreased rates of separation anxiety. Although this is a low level of correlation, this situation is consistent with the hypothesis establishment between separation-individuation anxiety and fanaticism levels. As stated by Swann and Buhrmester (2015), the decrease in separation anxiety in fanaticism can be explained with the phenomenon of identity fusion. When the individual is aligned with the group, he/she is in, group category exceeds the individual self and the individual can have extremist pro-group actions more easily. Fanatics who are strongly fused with group identity are more likely to approve of pro-group actions when psychological arousal is high and group members' basic characteristics are shared, along with a sense of group-related immunity. Group and individual identity, which start to develop in an intertwined way starting from the individual's birth, remain in a way that cannot experience the expected separation after adolescence (Côté, 2018). Since fanatics still have a sense of inner unity with the group they are in, they are protected from experiencing separation anxiety.

It can be argued that individuals with ongoing conflicts in separation-individuation processes cannot develop a subjective self, and therefore, cope with the pain of being separated through engaging in aggressive behaviours. In this way, the emotions that are unbearable in one's inner world can be quickly projected to the available others in the outside world. The fanatics, on the other hand, do not feel separation anxiety because they are fused with the group identity. The reason why fanatics do not feel the anxiety of restriction is that the fanatics exhibiting extreme behaviour do not feel the existence of a power that limits them within the group, and they assume that sense of personal responsibility is that of the group's (Reichner, 1996). The anxiety of rejection is ignored through the denial mechanism and the feelings of loneliness such anxiety may result in, are reflected to the opposing team's fans. Thus, it can be argued that people believing to be a member of a group feel that they are in a proper relational domain to cope with the anxiety posed by separation and individualization.

When the relationships between separation-individuation processes and aggression are examined, it can be seen that participants with high level of separation anxiety and engulfment anxiety have more hostility and feelings of anger, while those who have higher need denial have high levels of physical and verbal aggression levels in addition to hostility and feeling of anger. While the state of being separated from significant others and having lives controlled and limited triggers the feelings of anger and hostility, they do not reach a level that includes behavioral violence. On the other hand, need denial, which creates the anxiety of not being wanted by significant others is an experience more difficult to cope with and it causes aggressive behaviors. As stated by Lefkowitz, Eron, Walder and Huesmann (2013), the most important trigger of aggressive behaviors is the experience of frustration. Separation and engulfment anxiety in young people still places parental relations at the center. The young adults, either want not to be separated from or not to be overprotected by them. Rejection anxiety, on the other hand, beyond being separated from parents, refers to the feeling of being undesirable and alone on earth. In this respect, the feeling of rejection by the parent, which is considered more destructive emotionally, underlies many aggressive behaviors and psychopathology (Rohner et al, 2012). It can be seen that individuals whose conflicts continue regarding the experience of separation-individuation and thinking that they are not wanted by significant others become more open to angry emotions and have the potential to conduct aggressive behaviors. In their study conducted on 416 high school students, Güven and Aslan (2010) reported that adolescents with high separation-individual anxiety had higher level of showing peer bullying.

It was found that the effect power of separation-individuation level in the relationship between aggression and fanaticism was at a significant level. From this point of view, it can be seen that individuals who cannot complete their separation-individuation processes in a healthy way have difficulty in coping with sources of anxiety such as being separated from others, being controlled and not being wanted by others. The existence of separation-individuation concerns in issues such as regulating and mentalization of aggressive tendencies, impulse control and behavioral control presents as a mental area in which individuals feel their selves valuable and themselves as a whole. Stone, Otten, Soenens, Engels and Janssens (2015) reported that in the intimacy phase, the infant's narcissism (self-worth) confronted obstacles and this frustration had to cope with feelings of helplessness and disappointment and the fact that the world was not a place they wanted it to be. Blos (1967) described adolescence as second birth and the stage he called second individuation ran in parallel with the reconvergence phase. The obstacles of the outside world, failures and unwanted emotions invade the supporters' self. This occupation is quickly directed to the outside world and projected onto others so that the good feelings and images in the self can be preserved.

Volkan (2012) reported that differentiating the group with fanatics from other groups was necessary to keep the good and the bad separate and one group reflected the images, feelings, thoughts and attitudes they did not want to see in themselves to another group. Thus, the difference between the group's we identity and the other group's identity is clarified. In addition, this differentiation also helps to remove the blurring of the self-boundaries and functions as a psychological border for the team-self/we-self. Considering the outside world and other groups as bad also raises the possibility of attacks from them. For this reason, members of the group believe that they have the right to act aggressively in self-defense.

The reason why supporters who have we-I relationship with their team act more reactive is to protect this identity and most extreme reactions are expected from these supporters, for supporters who do not establish we-I relationship, the team's role is less associated with their social identities and the results obtained are not worth being considered significant. The team's success gives a feeling of trust and pride to protect the undefined self and it is protective against vulnerability (Polat and Sönmezoğlu, 2016). In a study they conducted on delinquent adolescents, Sarraf, Singh and Dubey (2009) and identified impulsive characteristics of delinquent adolescents as an indicator of serious self-defects.

Çiçek and Aslan (2019) found that the development and satisfaction of adolescents' peer relationships depend on the negative structure in separation-individuation processes. Fanatics need to find harmony with their peers in the process of belonging to a group. The ability of this relationship to take a healthy direction in which the boundaries of the self are preserved will be related to a healthy process in separation-individuation processes. Adolescents, who are not supported to develop an autonomous identity within the family are included in peer groups in the form of a "fusion or replacement relationship".

An adolescent who has clear boundaries and who feels independent does not only redefine himself/herself, but also reviews the relationship between the self and others (Lapsley and Stey, 2010). The present study which aimed to find out the factors why fanatics tend to aggressive behaviors examined the regulatory effects of separation-individuation processes. It seems that young people who have not progressed in the process of separation-individuation enter into a kind of fusion with the team they support when they face with the difficulties of developing an individual self. This fusion is responding to the difficulty of existing in the maturing and painful process of individuation with the option of substituting one's self into the team's self. It has been found that young people who reflect the features they do not want to see in themselves to their teams by merging instead of dividing and then expected attack from these groups assigned legitimacy to themselves in tending to aggressive behaviors.

These findings may contribute in revealing how aggression and offensive behavior emerge as well as preventing violence incidents, such as violence in sports, which have impact on communities. They may also provide answers to what potential behaviors a negative separation-individuation process may lead to in the later periods of development of young people, from the perspective of fanaticism and aggression.

The analysis of the correlation between the variables indicates that there are significant correlations between aggressive behaviors and fanaticism and problems in the separation-individuation processes. Further, separation-individuation processes have a significant moderating effect on correlation between aggressive behaviors and fanaticism.

The present study is limited to young adults between 18-22, residing in Istanbul. Designing studies that focus on individuals in their early adolescence, which is a critical period in separation, and those in their other developmental periods, would be useful. Further, implementing the present study, which is limited to Istanbul only, in other cities would contribute to the literature. Finally, new studies employing different variables and involving specifically designated groups, would also be useful to better understand reasons underlying such overidealized attitudes, considering that fanatic tendencies and aggression are increasing recently, not just in football but in other domains.

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Received Date: 01 May 2022 I Accepted Date: 04 July 2022

OPUS
Journal of Society Research

RESEARCH ARTICLE

Examination of the Executive Function Skills of 5-Year-Old Children Receiving Pre-School Education According to Some Variables

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July 2022
Volume:19
Issue:48
DOI: 10.26466//opusjsr.1112099

Citation:
Karabekmez, S. and Akman, B. (2022). Examination of the executive function skills of 5-year-old children receiving pre-school education according to some variables. *OPUS– Journal of Society Research, 19*(48), 617-632.

Abstract

The aim of this study is to examine the executive function skills of 5-year-old children receiving pre-school education in terms of gender, duration of pre-school education, parental education and age status, maternal employment status, children's digital game playing status and digital game playing frequency variables. The study was carried out through the descriptive survey model, which is among the quantitative research methods, and the convenience sampling method, which is among the non-random sampling methods. The population of the study consists of 5-year-old children receiving pre-school education and the sample group consists of 332 children in the 5-year-old group who attend independent kindergartens affiliated to the Ministry of National Education in Ağrı and who are allowed by their parents to participate in the research. 'The Childhood Executive Function Inventory (CHEXI)-Teacher Form' and the Child Information Form prepared by the researchers were used within the context of the study. As a result of the study, no significant difference was found in CHEXI-Teacher Form scores in terms of the variables of duration of preschool education, parent education and age status, and maternal employment status. However, it was observed that CHEXI-Teacher Form scores were significantly higher for boys compared to girls, for children who play digital games compared to those who do not, and for children who play digital games more than once a day compared to children who play less frequently.

Keywords: *Executive Functions, Pre-School, Digital Game, Game.*

Öz

Bu çalışmanın amacı, okul öncesi eğitim alan 5 yaş grubu çocukların yürütücü işlev becerilerinin cinsiyet, okul öncesi eğitime devam etme süresi, anne-baba eğitim ve yaş durumu, anne çalışma durumu, çocukların dijital oyun oynama durumu ve dijital oyun oynama sıklığı değişkenleri açısından incelenmesidir. Çalışma nicel araştırma yöntemlerinden betimsel tarama modeli ve seçkisiz olmayan örnekleme yöntemlerinden uygun örnekleme yöntemiyle yürütülmüştür. Çalışmanın evrenini 5 yaş grubu okul öncesi eğitimi alan çocuklar oluşturmakla birlikte örneklemi, Ağrı ili MEB'e bağlı resmi bağımsız anaokullarına devam eden ve ebeveynleri tarafından araştırmaya katılımına izin verilen 5 yaş grubu 332 çocuk oluşturmaktadır. Çalışma kapsamında 'Çocukluk Dönemi Yürütücü İşlevler Envanteri (ÇDYİE)-Öğretmen Formu' ve araştırmacılar tarafından hazırlanmış olan Çocuk Bilgi Formu kullanılmıştır. Çalışmanın sonucunda Çocukluk Dönemi Yürütücü İşlevler Envanteri (ÇDYİE)-Öğretmen Formu puanlarında okul öncesi eğitime devam etme süresi, anne-baba eğitim ve yaş durumu, anne çalışma durumu değişkenlerine göre anlamlı farklılık bulunmamıştır. Bununla birlikte erkek çocukların kız çocuklarına göre, dijital oyun oyanayan çocukların oynamayanlara göre ve günde bir kereden fazla dijital oyun oynayan çocukların daha az sıklıkta oynayan çocuklara göre Çocukluk Dönemi Yürütücü İşlevler Envanteri (ÇDYİE)-Öğretmen Formu puanlarının anlamlı derecede yüksek olduğu görülmüştür.

Anahtar Kelimeler: *Yürütücü Işlevler, Okul Öncesi, Dijital Oyun, Oyun.*

Introduction

The pre-school period, which covers the first six years of life from the birth, is a period in which development and growth are effective and rapid as well as interaction with the environment occurs at most. In the preschool period, children develop their skills by gaining basic habits, socialize by gaining different experiences, and improve their cognitive skills (Barnett, 1992; Oktay, 2010).

Executive function skills, which are also expressed as cognitive skills in the preschool period, are skills that are associated with many developmental areas and their development is important. The first five years have a critical importance in the development of cognitive skills. Besides, the fastest growing age group is stated as 5-8 years old (Barkley & Murphy, 2010; Garon et al., 2008; Taş & Deniz, 2018). Within this context, this study was carried out with 5 years old children in the preschool period who are in the critical age group in order to support the development of executive function skills which are also expressed as cognitive skills (Best & Millor, 2010; Dawson & Guare, 2010; Diamond, 2002; Karakaş & Karakaş, 2000).

Executive functions are cognitive skills which prevent stimuli that are not suitable for the purpose in order to plan thoughts and behaviors in accordance with the purpose and to maintain these plans. These cognitive skills allow keeping the processed information active, directing attention, and shifting between information (Diamond, 2002).

Comprising sub-dimensions of working memory, cognitive flexibility, inhibitory control, planning-organization and directing attention; executive function skills cover all education levels including the pre-school period (Barkley & Murphy, 2010; Garon et al., 2008; Taş & Deniz, 2018). Additionally, with the arrangements configured as part of a project, it was revealed that the sub-dimensions of executive function skills are working memory, obstructive control, and cognitive flexibility (Bailey et al., 2018). The executive function model developed by Miyake et al. (2000) also consists of a triple structure in the form of working memory, obstructive control, and cognitive flexibility. In addition, this triple structure is separate from yet correlates with each other. This situation indicates that besides this trilateral structure is not completely independent of each other, it has common characteristics.

Working memory refers to the ability to keep the information in mind in a short time and to take action regarding this information. Attention is an important element for this purpose. This skill develops with the age of 2 in children and this development accelerates during the preschool period. Working memory has an effect on keeping information in mind temporarily and then turning it into appropriate reactions when applicable situations (Baddeley, 2012; Garon et al., 2008). Inhibitory control (Inhibition) is the individual's showing the appropriate reaction in a controlled manner instead of giving the dominant response. In order not to realize the dominant response, the inhibitory control is consciously activated. Along with increasing age, inhibition skill also develops. It is seen that this development is greater especially after the preschool period (Barkley, 1997; Fuster, 2008; Tregay et al., 2009). Cognitive flexibility is the ability to consciously switch from one task to another and to control attention during these transitions. It is effective in individual’s showing problem solving behavior along with tasks that s/he is not accustomed to. Cognitive flexibility, which supports adaptation to changing conditions, is seen in children from the age of 3 and continues until after the preschool period (Canas et al., 2006; Diamond et al., 2005).

Children's executive function skills are more sensitive to environmental effects due to their rapid development and formability in preschool years (Zelazo & Carlson, 2012). In addition, the objectives of the education given in the pre-school period include enabling children realize their potential by providing rich stimulating environments, developing their thinking capacities, and preparing children for advanced academic experience and life. One of the most important steps that can be followed to achieve these goals is to support these cognitive skills of children with rich stimulating environments in the preschool period, when the rate of cognitive development and thus the establishment of synaptic connections are the highest and executive function skills develop in the fastest way (Oakley, 2004; Türkoğlu & Uslu, 2016). It is stated that rich stimulating environments to be provided in order to support the cognitive development of children can also be achieved through play (Dönmez, 1992; Oktay, 2010).

Plays have effects on children such as making evaluations by thinking rationally, making a judgment, and improving information processing skills (Armory et al., 1999; Jonassen et al., 1999). Today, it is observed that digital games have an important place in children's lives due to technological developments and the widespread use and easy access of mobile devices (Bilgi Teknolojileri ve İletişim Kurumu, 2020) and that the play preferences of preschool children are increasing from traditional plays to digital games (Sapsağlam, 2018).

The positive effects of digital games have an undeniable reality in terms of enabling 21st-century learning skills such as critical thinking, creating a synthesis, collaborating, communication, and approaching events from different perspectives (Binkley et al., 2012). In the studies, besides the results that digital games have different levels of effects on learning success, it has been observed that they have potential effectiveness in achieving cognitive attainment, gaining positive attitudes towards the learning process, and improving executive function skills (Anguera et al., 2013; Homer et al., 2018). Considering the fact that there are many studies stating that executive function skills affect academic achievement, adaptation to primary school, and showing appropriate behavior in the classroom (Anderson, 2002; Harris, 2016; Riggs et al., 2003; St Clair-Thompson & Gathercole, 2006; Vitiello & Greenfield, 2017; Zelazo et al., 2003), this study is of importance in terms of shedding light on the studies to be done on the subject and contributing to the literature by revealing the executive function skills of children and the factors affecting them. In this context, in terms of executive function skills that are important to be gained in preschool, it is aimed to determine to what extent variables such as gender, duration of preschool education, parental education status, parental age status, maternal employment status, digital game playing situation, and frequency of digital playing are effective on children's development in these skills.

The early childhood years offer unique opportunities to support executive function skills. One of those who will create this unique opportunity are those who work with children, namely teachers. Meltzer (2010) stated that teachers' opinions about children's experiences of certain difficulties are very important when evaluating children, and he mentioned teachers as informal diagnostic experts depending on observation and classroom-based assessment methods. Evaluation methods are important for teachers to understand the executive function processes of children and to determine how to support children in this process. Accordingly, examining the executive function skills of 5-year-old children receiving pre-school education depending upon the 'The Childhood Executive Functions Inventory (CHEXI)-Teacher Form' constitutes the main problem of this research.

The problem statement of the research has been determined as "What are the factors affecting the executive function skills of 5-year-old children receiving pre-school education?". The sub-problems of the research are as follows:

1. What are the executive function skills levels of 5-year-old children?
2. Do the executive function skills of 5-year-old children show a significant difference related to gender?
3. Do the executive function skills of 5-year-olds differ significantly according to the duration of pre-school education?
4. Do the executive function skills of 5-year-olds differ significantly according to the parental education status?
5. Do the executive function skills of 5-year-olds differ significantly according to the parental age status?
6. Do the executive function skills of 5-year-olds differ significantly according to the maternal employment status?
7. Do the executive function skills of 5-year-olds differ significantly depending on the state of digital game playing?
8. Do the executive function skills of 5-year-olds differ significantly according to the frequency of digital game playing?

Method

The method of the research is the descriptive survey model, which is one of the quantitative research methods. This model is the scanning arrangements on the entire population or the sample to be taken from the population in order to make a general judgment about the population when there is a large number of members in the population (Karasar, 2012). Scanning models are research approaches aimed at describing a past or present situation as it exists (Karasar, 2012).

Study group

The population of the research consists of children who receive pre-school education in the 5-year-old group and the sample group consists of 332 children in the 5-year-old group, who attend official independent kindergartens affiliated to the Ministry of National Education in Ağrı and are allowed to participate in the study by their parents.

While determining the study group, convenience sampling method, which is one of the non-random sampling methods, was used. Convenience sampling method is expressed as a method that aims to prevent the loss of time and workforce of the researcher (Büyüköztürk et. al., 2015).

The demographic profile of the children comprising the study group is included in Table 1.

Table 1. The demographic profile of the children comprising the study group

	Variables	N	%
Gender	Girl	176	53.01
	Boy	156	46.99
Duration of pre-school education	12-24 months	146	43.98
	25-36 months	186	56.02
Mother’s educational background	illiterate	31	9.34
	Primary School	84	25.3
	Secondary School	51	15.36
	High School	81	24.4
	Undergraduate and higher	85	25.6
Father’s educational background	illiterate	7	2.1
	Primary School	63	18.98
	Secondary School	41	12.35
	High School	82	24.7
	Undergraduate and higher	139	41.87
Mother’s age status	Aged 20-30	154	46.38
	Aged 31-40	155	46.69
	Aged 40 and older	23	6.93
Father’s age status	Aged 20-30	51	15.36
	Aged 31-40	231	69.58
	Aged 40 and older	50	15.06
Maternal employment status	Unemployed	298	89.76
	Employed	34	10.24
Digital game playing status	Yes	272	81.93
	No	60	18.07
Digital game playing frequency	Rarely	58	21.32
	A few times a week	59	21.69
	Once a day	76	27.94
	More than once a day	79	29.05

Data Collection Tools

Form Child Information Form: This form which was developed by the researchers includes information about children's gender, duration of pre-school education, parental education status, parental age status, maternal employment status, digital gaming status, and frequency of digital game playing.

The Childhood Executive Functions Inventory (CHEXI)-Teacher: Developed by Thorell and Nyberg (2008) regarding the executive functioning skills of children aged 4-12 and based on Barkley's (1997) model, The Childhood Executive Functioning Inventory (CHEXI) consists of teacher and parental inventories. The teacher inventory of the scale has been adapted to Turkish by Çiftçi et al. (2020) by carrying out validity and reliability studies for children between 48-72 months of age.

Developed by Thorell and Nyberg (2008), CHEXI was primarily handled as 4 sub-dimensions and 26 items. It was designed as working memory (11 items), planning (4 items), inhibiton (6 items) and regulation (5 items). However, in the factor analysis, it was concluded that the best adjustment was achieved with the sub-dimensions of working memory and inhibiton. As the factors were examined, it was seen that the first factor included items related to working memory and planning sub-dimensions, and the second factor included items related to inhibiton and regulation sub-dimensions. The scale was organized as a total of 24 items, 13 of which were in working memory and 11 were in inhibiton.

The 5-point Likert-type inventory (1: Definitely not true, 5: Definitely true) is filled by the teacher and takes 5-10 minutes on average (Thorell & Catale, 2014; Thorell & Nyberg, 2008).

While high scores in the original of the scale showed that the child had difficulties in executive function skills, this situation was replaced by reverse coding in the Turkish version. In this case, high scores mean that the child demonstrates high executive function skills. (Çiftçi et al., 2020; Thorell & Nyberg, 2008).

In confirmatory factor analysis, factor loading values were found to vary between 0.47 and 0.85 and supported the original structure with two factors (working memory and inhibiton) ($\chi 2$ (544) = 1113891, CFI= 0.93, RMSEA= 0.06 [90% CI 06, 07], SRMR = 0.04). Cronbach's alpha coefficients were 0.95 for the Working Memory subscale and 0.91 for the Inhibiton sub-scale. In the test-retest reliability coefficient calculation, Working Memory was found to be 0.89 and Inhibiton was 0.85. Corrected item-total score correlations range from 0.46 to 0.83. The results have shown that the Turkish version of the CHEXI is a valid and reliable measurement tool in assessing executive function skills for 48-72 months old children.

Data Collection Process

In order to carry out the research, first of all, utilization permissions were obtained from the owners of the measurement tools to be used within the scope of the research. Afterwards, Ethics Committee of Ağrı İbrahim Çeçen University was applied to obtain the necessary permissions. After obtaining the ethics committee permission, from the Ağrı Provincial Directorate of National Education, necessary permission was obtained for the application.

For the study, the principals, assistant principals and teachers of 5 independent kindergartens affiliated with the Agri Province center were interviewed and informed about the study and the 'Child Information Form' and 'The Childhood Executive Functions Inventory (CHEXI)-Teacher Form' were distributed to the teachers who participated voluntarily. By the teachers, the parents of 507 children were delivered the 'Volunteers' Informed Consent Form-Parent' and 'Child Information Form', which states that they approved their children to participate in the study. Of the forms delivered, 378 were returned. Of the returned forms, 46 of which were filled incompletely were removed and 332 of them were evaluated

Analysis of the Data

First of all, data of 332 5-year-olds collected from five independent kindergartens were transferred to the SPSS 21 program. The normality of the scores obtained from the 'The Childhood Executive Functions Inventory (CHEXI)-Teacher Form' was evaluated by examining the coefficients of kurtosis and skewness for each category of both the general total and the independent variables and it was observed that these coefficients remained between ±1.5. In the case that the coefficients of kurtosis and skewness are within the ±1.5 limit, the distribution of the data set is considered normal (Pituch & Stevens, 2016). The homogeneity of the group variances was checked with Levene's test and the degree of freedom were recalculated for the variables whose Levene test was significant. Since it was observed that the data were normally distributed in all independent variables, while the differences between the group means for the two-category independent variables were analyzed with t-test, the mean differences, between the groups for the three or more category independent variables were analyzed with ANOVA. Upon the significant F statistics results of ANOVA, in order to define the source of the group differences, Scheffer test was used if the group variances were homogeneous and Tamhane's T2 test was used if not homogeneous. For the results of the difference between group averages that were significant at 0.05 alpha level, the effect of the independent variable on the dependent variable was examined with eta-squared (η2) statistics. η2, also called the effect size, shows how much the independent variable explains the total variance in the dependent variable and it varies between 0,00-1,00. This coefficient is interpreted as small effect size for η2=0.01, medium for η2=0.06, and large effect size for η2=0.14 (Büyüköztürk, 2011).

Ethical Notification

This study was carried out within the scope of the permission obtained from the Scientific Researches Ethics Committee of Ağrı İbrahim Çeçen University (dated November 25, 2021, decision no. 322).

Findings

Regarding the first sub-problem of the study: the state of executive functions: The answer to this sub-problem was sought by examining the mean and standard deviation values of the answers given to 'The Childhood Executive Functions Inventory (CHEXI)-Teacher Form'. The results regarding the distribution of executive function skills scores obtained from the inventory are summarized in Table 2.

Table 2. Average of the executive function skills scores

N	Minimum	Maximum	Mean	Standard Deviation
332	42	118	74,44	16,72

When Table 2 is examined, it is seen that the average of the executive function skills scores of the children participating in the study is 74.44. Accordingly, children's executive function skills are at a medium-level.

Regarding the second sub-problem of the study: the state of gender: An independent samples t-test was used to answer this sub-problem and the results are summarized in Table 3.

Table 3. The t-test results of the executive function skills scores by gender.

Gender	N	Mean	Standard Deviation	t	sd[a]	p	η2
Boy	176	77.60	17.68	3.76	329.01	0.00*	0.04
Girl	156	70.88	14.82				

**p<0,05; a: Levene's test (F=4,56; p=0,04)*

When Table 3 is examined, it is seen that while the average of the executive function skills scores of boys is 77.60, it is 70.88 for girls. The differences observed between the averages were statistically significant (t=3.76; p<0.05). In addition, gender explains 4% of the variability in executive function scores (η2=0.04).

Regarding the third sub-problem of the study: the state of duration of pre-school education: The answer to this sub-problem was sought through one-way variance analysis (ANOVA) for independent samples and the results were summarized in Table 4.

Table 4. T test result of executive function skills scores according to the status of duration of preschool education.

The state of duration of preschool education	N	Mean	Standard Deviation	t	sd	p
12-24 months	146	76.31	19.20	0,74	330	0,50
25-36 months	186	74.20	16.38			

When Table 4 is examined, it is seen that the average executive function skills scores of children with a duration of 12-24 months are 76.31, while the average of children with a duration of 25-36 months is 74.20. The differences observed between the averages were not found statistically significant (t=0.74; p>0.05).

Regarding the 4th sub-problem of the study: educational status of parents: The answer to this sub-problem for independent samples was sought through one-way variance analysis (ANOVA) and the results were summarized in Tables 5 and 6.

Table 5. The distribution of executive function skills according to parental educational status

Educational Status	Mother			Father		
	N	Mean	Standard Deviation	N	Mean	Standard Deviation
illiterate	31	75,87	18,58	7	75,29	17,07
Primary School	84	73,11	17,09	63	74,71	17,80
Secondary School	51	75,55	16,13	41	74,51	15,57
High school	81	76,42	17,35	82	74,29	16,89
Undergraduate and higher	85	72,69	15,42	139	74,35	16,66

Table 5 summarizes the distribution of children's executive function skills scores according to the educational status of their parents. The results of the ANOVA applied regarding the significance of the observed differences between the averages are indicated in Table 6. Since there were not enough observations in the illiterate category for father's education level (N<30), ANOVA analyzes were made over other educational status.

Table 6. ANOVA result of executive function skills scores according to mother and father education status.

Parent	Source of the variance	Sum of squares	Sd	Mean squares	F	p
Mother	Intergroup	851,99	4	213,00	0,76	0,55
	Intragroup	91653,92	327	280,29		
	Total	92505,91	331			
Father	Intergroup	7,902	3	2,63	0,01	1,00
	Intragroup	90745,5	321	282,70		
	Total	90753,4	324			

When Table 6 is examined, differences observed between the average of the executive function skills scores of the children according to both the mother's educational status ($F_{4.327}$=0.76; p>0.05) and the father's educational status ($F_{3.321}$=0.01; p>0.05) were not found significant.

Regarding the 5th sub-problem of the study: the state of parental age: The answer to this sub-problem for independent samples was sought through one-way variance analysis (ANOVA), and the results are summarized in Tables 7 and 8.

Table 7. The distribution of executive function skills according to parental age status

Age	Mother			Father		
	N	Mean	Standard Deviation	N	Mean	Standard Deviation
Ages 20-30	154	74,42	16,76	51	76,76	17,74
Ages 31-40	155	74,54	16,59	231	73,64	16,18
Ages 40 and higher	23	73,96	18,00	50	75,78	18,11

Table 7 summarizes the distribution of children's executive function skills scores according to the age of the parents. The results of the ANOVA applied regarding the significance of the observed differences between the averages are presented in Table 8.

Table 8. ANOVA result of executive function skills scores according to maternal and paternal age status.

Parent	Source of the variance	Sum of Squares	Sd	Mean squares	F	p
Mother	Intergroup	7,076	2	3,54	0,01	0,99
	Intragroup	92498,84	329	281,15		
	Total	92505,91	331			
Father	Intergroup	512,979	2	256,49	0,92	0,40
	Intragroup	91992,93	329	279,61		
	Total	92505,91	331			

When Table 8 was examined, according to the age of both the mother's ($F_{2,329}$=0.01; p>0.05) and the father's age status ($F_{2,329}$=0.92; p>0.05), the differences observed between the averages of children's executive function skills scores were not significant.

Regarding the 6th sub-problem of the study: the maternal employment status: An answer to this sub-problem was sought for independent samples with t-test and the results were summarized in Table 9.

Table 9. The result of the t test based on the maternal employment status of the executive function skills scores.

Employment status	N	Mean	Standard Deviation	t	sd	p
Yes	298	74,31	16,78	-0,43	330	0,67
No	34	75,62	16,37			

When Table 9 is examined, the average executive function skills scores of children whose mothers are not working are 74.31, while the average of children whose mothers work is 75.62. The differences observed between the averages were not found statistically significant (t=-0.43; p>0.05).

Regarding the 7th sub-problem of the study: the state of digital game playing: An answer to this sub-problem for independent samples was sought through t-test and the results were summarized in Table 10.

Table 10. T test result of executive function skills scores based on digital game playing status.

Digital game playing status	N	Mean	Standard Deviation	t	sd	p	η2
No	60	66,53	15,95	-4,15	330	0,00	0,05
Yes	272	76,19	16,40				

When table 10 is examined, it is seen that the average of executive function skills scores of children who do not play is 66.53, while the average of children playing games is 76.19. The differences observed between averages are statistically significant ($t=-4,15$; $p<0,05$). In addition, whether or not to play a digital game explains 5% of the variability in executive function skills scores ($\eta 2=0.05$).

Regarding the 8th sub-problem of the study: the status of digital gaming frequency: A response to this sub-problem for independent samples was sought through one-way variance analysis (ANOVA) and the results were summarized in Tables 11 and 12.

Table 11. Distribution of executive function skills scores according to frequency of digital gaming.

Game Playing Frequency	N	M	SS
(1) Rarely	58	74,19	16,64
(2) A Few Times a Week	59	74,14	13,49
(3) Once a Day	76	72,58	18,39
(4) More than Once a Day	79	82,66	14,52

Table 11 summarizes the distribution of executive function skills scores according to the children’s digital game playing frequency. ANOVA results on the significance of the differences observed between the averages are presented in Table 12.

Table12. ANOVA result based on the frequency of digital gaming of executive function skills scores.

Source of the Variance	Sum of squares	Sd	Mean Squares	F	p	Eta-square	Difference
Intergrroup	4777,31	3	1592,44				1-4
Intragroup	68130,13	268	254,22	6,26	0,00	0,07	2-4
Total	72907,44	271					3-4

In Table 12, the ANOVA result of the executive function skills scores according to the frequency of playing digital games is summarized. According to this, the differences observed between the average scores of children's executive function skills were found to be significant ($F_{3,268}=6.26$; $p<0.05$). In order to find out which group causes the difference, Tamhane’s T2 test, one of the post hoc tests, was used because the variance between groups was not homogeneous ($F=2.80$; $p=0.04$) according to Levene's test. As a result of Tamhane's T2 test, the difference between the averages was observed to be between playing more than once a day and playing once a day, once a week and rarely. In addition, the frequency of game playing explains 7% of the variability in executive function skills scores ($\eta 2=0,07$).

Discussion and Result

The results of this study, which aimed to examine the executive function skills of 5-year-old children in preschool education according to some variables, were discussed in according with the findings.

When the findings were examined in terms of the gender variable, it was seen that the executive function skills of the children differ significantly difference according to this variable, and this difference was on behalf of the boys. Similarly, there are studies that found a significant difference in executive function skills according to gender and showed that this difference was on behalf of boys (Blasiman & Was; 2018; Camerota et al., 2018). In his research with preschoolers, Sağlam (2020) also found that boys scored higher on working memory scores than girls fin terms of executive function skills. Another study with individuals of different ages found that boys performed better than girls in working memory scores from executive function skills in only 13-15 age groups (Gathercole et al., 2004). However, there are also studies that have found that executive function skills differ on behalf of girls (Isquith et al., 2004; Mileva-Seitz et al., 2015; Wiebe et al., 2008). In the study of Hamamcı (2020) in the form of parent and teacher evaluation, it was found that the inhibitory control ability, one of the executive function skills, differed on behalf of girls. In his study with preschool children, Yılmaz (2022) also reached a result on behalf of girls in working memory and inhibitory control skills. Additionally, there are studies that do not show any difference according to the gender variable (Diamond & Taylor, 1996; Harvey, 2011). In Öğütcen's (2020) study with 48-66 months old children, it was seen that teacher and parent evaluations did not differ according to the gender variable. Similarly, in his study with 48-72 months old children, Tuncer (2021), who used the parent form of the inventory used in the current study, found that executive function skills did not change according to gender. In Decker's (2010) study, which examined the relationship between working memory and early academic skills of children aged 4-6, while there was a significant relationship between verbal skills and auditory short-term memory, no gender difference was found. However, there are different results about the effect of gender in the literature, when the effect size is examined in the current study, it is seen that gender has a moderate effect on executive function skills. In this case, it can be stated that the effect of gender on executive function skills cannot be ignored.

When the findings were examined in terms of the variable of the duration of preschool education, it was determined that the executive function skills of the children did not show a significant difference according to this variable. Similarly, in the study conducted by Hamamcı (2020), as a result of teacher evaluations, it was seen that the executive function skills of children did not differ according to the duration of preschool education. In Öğütcen's (2020) study, it was determined that the executive function skills of preschool children did not differ significantly according to the years of preschool education. However, in the study of Yılmaz (2022), it was determined that the working memory skills scores of children who received preschool education were higher than those who did not. Burrage et al., 2008) also reported in their study that children who attend pre-primary education institutions perform better in the task of working memory skills compared to children who do not attend. Belsky et al. (2007) stated in their study that higher quality teacher-child interactions in the preschool period have a significant effect on the executive function skills of children, and this situation contributes to the executive function skills of preschool children who attend school. However, some studies show that supportive programs applied in the preschool education process have a positive effect on children's executive function skills (Burger, 2010; Gormley et al., 2005; Weiland & Yoshikawa, 2013). As a result of the present study, the fact that the duration of preschool education does not show a significant difference in executive function skills may be due to the quality of educational activities or the interaction of teachers and parents with children.

When the findings were examined in terms of the parent education level variable, it was determined that the executive function skills of the children did not show a significant difference according to this variable. Similarly, Öğütcen's (2020) study indicated that children's executive function skills did not differ significantly according to the education level of their parents. In the study conducted by Hamamcı (2020), it was seen that the executive function performances of children did not differ according to both mother’s and father’s education level in the evaluations of parents and teachers. In the study conducted by Groen (2015), it was concluded that parental education level did not have an effect on cognitive flexibility, which is a sub-dimension of executive functions, but had a small effect on working memory and inhibitory control. In his study, Schady (2011) found that the mother's year of going to school and the mother's vocabulary were strongly associated with the child's cognitive development, while the father's school-going year was weaker in relation to the child's cognitive development. In other studies (Ardila et al., 2005; Hoff, 2003; Noble et al., 2015; Kaçamak Öğüt et al., 2020) it was found that parent’s education is related to the child's executive function skills. In the study of Castillo et al. (2011) on the sample of adolescent age group, parental education level was found to be associated with cognitive performance. In the study of Yılmaz (2022), it was determined that the executive function skills of children of parents with higher education levels are higher. This case has been explained by the fact that as the education level of the parents increases, they spend more quality time with their children and give more importance to their development. As a result of the current study, it can be said that the fact that the executive function skills of children do not differ according to the educational status of the parents may be related to the homogeneous distribution of the data obtained from the study group.

When the findings were examined in terms of the age variable of the parents, it was determined that the executive function skills of the children did not show a significant difference according to this variable. Similarly, in Yılmaz's (2022) study, no difference was observed in the working memory sub-dimension and inhibitory memory sub-dimension of executive function skills according to both mother and father ages. Yılmaz (2022) explained this result by the fact that there was no difference between the ages of the families forming the sample and their child-rearing attitudes. Considering the studies conducted in line with this explanation, it is seen that parental behaviors may affect the development of executive functions in early childhood (Blair et. al., 2014; Fay-Stammbach et.al., 2014; Valcan et.al., 2018). In this case, considering parental attitudes along with the age factor may provide a more detailed interpretation of these factors that affect children's executive function skills.

When the findings were examined in terms of the maternal employment status variable, it was determined that the executive function skills of the children did not show a significant difference according to this variable. Similarly, Hamamcı (2020) found in his study that the executive function skills of children in parent and teacher evaluations did not differ according to their maternal employment status. However, in the study of Yılmaz (2022), while there was a significant difference in working memory skills, which is one of the executive function skills of children, no significant difference was found in the inhibitory control skills in accordance with the working conditions of the parents. This matter can be attributed to the fact that the family is at a better socio-economic level and can offer a richer environment to their child, together with the work. Contrary to the study of Yılmaz (2022), De Jong (1993) created an attention model comprising the relationship between home background factors and academic success at school and by including the parent profession in its variables, he showed that the socioeconomic level variable did not have an effect on the regulation of attention. Similarly, by adding parental occupation to the socioeconomic level variable, DePrince et al. (2009) stated that it had no predictive effect on executive function scores. In studies dealing with the parent-child relationship (Bernier et al., 2012; Sosic-Vasic et al., 2017), it has been stated that errors in the executive function performance of children are less in the cases that the quality of the parent-child relationship, parent involvement, and parental responsibility are high. Considering this situation, it is thought that the findings of significant differentiation in the executive function performances of children stem from the characteristics of the parents. Since the parent-child relationship was not measured in the current study, besides the parent-child relationship could not be interpreted within the scope of the variable under consideration, the lack of significant difference according to the maternal employment status may be related to the homogeneous distribution of the data obtained from the study group.

When the findings were examined in terms of digital game playing status, it was seen that the executive function skills of the children differed significantly according to this variable and that the children who played digital games had higher executive function skills than those who did not. According to Aksoy (2014), digital games can contribute to the cognitive development of individuals because they require time constraints or race against time and force them to perform mental operations. There are many studies in the literature that support the results of the current study. In a study, it was concluded that science education with educational digital games was effective on the cognitive development of preschool children (Yıldız & Zengin, 2021). In their research examining the cognitive development of 5-6-year-old children using computers, Nir-Gal and Klein (2004) concluded that integrating computers into learning environments positively affects cognitive development. In experimental studies with preschool children, children were let play different digital games developed for working memory and it was observed that these games had positive effects on children's working memory (Bergman Nutley et al., 2011; Thorell et al., 2009). Similarly, the studies in which digital games containing brain-enhancing activities were used for individuals aged 4 and over indicated that game was effective in executive function skills such as working memory (Klingberg et al., 2005; Olesen et al., 2004) and inhibitory control (Klingberg et al., 2005). An experimental study in which a digital game developed on cognitive skills for individuals aged 6 and above was played concluded that this game was effective in the development of cognitive skills of children aged 6-13 (Helms & Sawtelle, 2007). Kavanaugh et al. (2019) let preschool children play a digital game developed for executive function skills and concluded that the game improved children's executive function skills. When the studies on the use of digital games are examined, it is seen that positive results are obtained in the acquisition of learning outcomes, increasing the learning speed and permanence of individuals, their academic success, critical thinking and problem-solving skills, cognitive development and motivation (Basak et al., 2008; Chuang & Chen, 2007; Jong et al., 2013; Hsu et al., 2017; Kanthan & Senger, 2011; Prensky, 2001; Samur, 2016; Subrahmanyam & Greenfield, 1994). As seen in the studies, digital games have positive effects on executive function skills, which are also expressed as cognitive skills. In the current study, the effect size is concerned, it is seen that the state of digital gaming has a moderate effect on executive function skills.

When the findings were examined in terms of the frequency of digital game playing, it was observed that children's executive function skills differed significantly according to this variable and that the difference was between playing more than once a day and playing once a day, once a week and rarely. Additionally, it was found that the frequency of gaming had a moderate effect on executive function skills. This effect indicates that as the frequency of playing increases, so do the executive function skills. Similarly, in a study conducted by Ramos and Melo (2019) with children between the ages of 7 and 9 in Brazil, the impact of digital game played in the school environment on attention was examined. After a routine program applied to children for 6 weeks and 15 minutes per day, it was determined that digital games improved children's attention performances. The American Academy of Pediatrics (AAP) (2016) recommends time limits, not more than 1 hour per day, on the use of digital media for children between the ages of 2 and 5. In this context, it is seen that although playing digital games more than once a day positively affects executive function skills, it is important to organize this frequency not exceeding 1 hour per day.

In this study, children's executive function skills were examined based on teacher evaluation. In future studies, it is recommended to evaluate the child's skills in detail by making measurements in the focus of the child's performance, as well as the evaluations of the adults around the child regarding the child's behavior.

In the current study, it was concluded that playing digital games positively affects children's executive function skills. Considering this result, it can be suggested to conduct experimental studies to examine their effectiveness by developing digital games to support executive function skills in the pre-school period.

It is recommended for preschool teachers to be supported through various training so that they can effectively use classroom strategies to evaluate, develop and support children's executive function skills.

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Received Date: 01 June 2022 I Accepted Date: 01 July 2022

OPUS Journal of Society Research

RESEARCH ARTICLE

The Impact of Organizational Trust, Readiness for Change, and Individual Tenure on Organizational Identification: Empirical Research on School Teachers in Turkey

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July 2022
Volume:19
Issue:48
DOI: 10.26466//opusjsr.1117877

Citation:
Kara, K. and Sağbaş, M. (2022). The ımpact of organizational trust, readiness for change, and ındividual tenure on organizational ıdentification: empirical research on school teachers in Turkey. *OPUS– Journal of Society Research, 19*(48), 633-647.

Abstract

Organizational identification basically shows individual organization fit. Tenure, organizational trust and readiness for change levels of individuals are among the main factors affecting the relationship between individual and organization harmony. The aim of this research is to determine the effect of tenure, organizational trust, and readiness for change levels of teachers working in primary schools on organizational identification. Hierarchical regression analysis has been applied. Three models and three hypotheses have been developed. The sample area of the study consists of primary school teachers working in Istanbul. The sample area has been determined by simple random method. 473 questionnaires have been collected. According to the analysis findings, all hypotheses have been accepted. In the first model, teachers' tenures have a low-level significant effect on organizational identification. In the second model, teachers' tenures and readiness for changes have a moderately significant effect on organizational identification. In the third model, teachers' tenures, readiness for changes and organizational trust have a highly significant effect on organizational identification. As a result of the research, implications for school administrators and school institutions have been presented.

Keywords: *Organizational Identification, Organizational Trust, Readiness for Change, Hierarchical Regression Analysis.*

Öz

Örgütsel özdeşleşme temel olarak birey-organizasyon uyumunu göstermektedir. Öğretmenlerin görev süresi, örgütsel güven ve bireylerin değişime yatkınlık düzeyleri, birey ve örgüt uyumu arasındaki ilişkiyi etkileyen temel faktörler arasındadır. Bu araştırmanın amacı, okullarında görev yapan öğretmenlerin görev süresi, örgütsel güven ve değişime yatkınlık düzeylerinin örgütsel özdeşleşme üzerindeki etkisini belirlemektir. Araştırmada hiyerarşik regresyon analizi uygulanmıştır. Üç model ve üç hipotez geliştirilmiştir. Araştırmanın örneklem alanını İstanbul'da görev yapan sınıf öğretmenleri oluşturmaktadır. Örneklem alan basit rastgele yöntemle belirlenmiştir. 473 anket toplanmıştır. Analiz bulgularına göre tüm hipotezler kabul edilmiştir. İlk modelde, öğretmenlerin görev süreleri örgütsel özdeşleşme üzerinde düşük düzeyde anlamlı etkiye sahiptir. İkinci modelde, öğretmenlerin görev süreleri ve değişime yatkın olmalarının örgütsel özdeşleşme üzerinde orta düzeyde anlamlı bir etkiye sahiptir. Üçüncü modelde, öğretmenlerin görev süreleri, değişime yatkınlık ve örgütsel güven, örgütsel özdeşleşme üzerinde yüksek düzeeyde anlamlı bir etkiye sahiptir. Araştırma sonucunda okul yöneticilerine ve okul kurumlarına yönelik çıkarımlar sunulmuştur.

Anahtar Kelimeler: *Örgütsel Özdeşleşme, Örgütsel Güven, Değişime Yatkınlık, Hiyerarşik Regresyon Analizi.*

Introduction

According to the social identity theory, individuals within social structures feel a sense of belonging to the group and organization psychologically and sociologically (Ashforth and Mael, 1989; Stets and Burke, 2000). This sense of belonging plays an active role in increasing the success of both the organization and the individual. In the organizational behavior literature, organizational identification (OI) is among the factors that mainly affect the individual's behavior and commitment to the organization (Başar and Sığrı, 2015). A high level of OI also facilitates the realization of individual and organizational goals (Polat and Meydan, 2010). The performance of teachers in schools, which are among the basic social structures, directly affects the society. OI is among the many factors that affect teacher performance (Christ et al., 2003; Van Dick et al., 2007). Akman (2017) points out that OI affects teachers' motivation. Çakınberk et al. (2011) emphasize that OI improves performance with increased motivation. Uzun (2018) found that the relationship between OI and burnout is negative. Avanzi et al. (2018) stated that OI negatively affects work and student-related burnout. In this study, it has been aimed to determine the effect levels of the factors affecting OI.

There are findings in the literature that individual tenure affect OI. With the linear approach, OI increases as the individual tenure of teachers increases. Özdemir (2010) found that teachers with high teaching experience have higher OI than those with low teaching experience. This finding directly points to the existence of a positive relationship between teachers' individual tenure and OI. On the other hand, Töre and Erel (2020) determined that teachers' OI levels differ according to their teaching experience. In particular, the OI levels of teachers who have worked for more than 10 years differ from less than 10 years. At this point, the first research question is as follows:

- *Research question 1*: Is there a significant relationship between tenures and organizational identification?

Modernization efforts in education systems bring about changes in schools. It is expected that teachers' readiness for change (RFC) levels are high not to show resistance to changes and to be welcomed positively (Zayim and Kondakci, 2015). In addition, being ready for changes and supporting change processes provide positive benefits (Hustus and Owens, 2018). Wang et al (2020) emphasize that for the changes in school programs to be sustainable, it is necessary to be prepared for change both at the organizational level and individual level. At this point, the second research question is as follows:

- *Research question 2*: Do tenure and RFC have a significant effect on OI?

Another variable that affects OI is organizational trust (OT). OT is the perception that individuals are supported by the policies and strategies of the organization (Lewicki et al., 1998). DeConinck (2010) has been explained that organizational support and OT play an active role in the formation of OI. Ates et al. (2017) explained that OT has a direct effect on OI. Kaya et al. (2017) have been found that OT has a significant effect on OI. The results of studies conducted in different sectors support the existence of a significant relationship between OT and OI. At this point, the third research question has been formed to determine the simultaneous effect of tenure, RFC, and OT on OI:

- *Research question 3:* Do tenure, RFC and OT have a significant effect on OI?

This research was conducted to answer the three basic research questions mentioned above. In the second part, the concepts of OI, OT and RFC are explained. In the third part, literature review, hypotheses and research models are presented. In the fourth part, the research methodology is given. In the fifth part, the findings are determined. In the last part of the article, the results obtained based on the findings and the implications of the research are explained.

Theoretical background and conceptual framework

Organizational Identification

Ashforth and Mael (1989:21) defined the concept of identification as "the perception of oneness or belongingness to some human aggregate". In the literature, the concept of identification is discussed at micro, meso and macro levels. It is conceptualized as "organizational identification (OI)" at the meso-level, that is, at the organizational level (Kreiner and Ashforth, 2004). This level is also expressed as "collective-level" (He and Brown, 2013). Despite being addressed at the organizational level, OI deals with values and goals in the individual-organization relationship (Reade, 2001). Theoretically, it is based on social identity and symbolic interactionist theories (Jones and Volpe, 2011). Riketta (2005) shows the breaking point of OI development in the literature as the study by Ashforth and Mael (1989) at the end of the 1980s. After this date, OI started to be discussed in terms of behavioral theory as well as social psychology theory. Mael and Ashforth (1992:104) defined the concept of OI according to social identity theory as "the perception of oneness with or belongingness to an organization, where the individual defines him or himself in terms of the organization(s) in which he or she is a member.". Dutton et al. (1994), who discussed the concept of OI in terms of management, explained that OI is not only the perceptions of individuals about their organization, but also includes the perception of external thoughts about the organization.

Individual identity is the individual's attitudes and behaviors. Likewise, OI is the basis of the individual's intra-organizational behaviors and attitudes (Van Knippenberg and Van Schie, 2000). It is also known that cultural differences play an important role in the effect of OI on attitudes and behaviors (Lee et al., 2015). In the literature, there are studies dealing with the antecedents and descendants of OI. Among the antecedents of OI are "percieved organizational support (Çelik and Fındık, 2012; He et al., 2014), pride and respect and tenure (Hameed et al., 2013), developmental leadership (Zhang and Chen, 2013), internal communication and emotional culture (Yue et al., 2021), ethical norms (DeConinck, 2011)". Among the descendants of OI are "satisfaction (Efraty and Wolfe, 1988; Karanika-Murray et al., 2015), performance (Chughtai and Buckley, 2010), readiness for change (Hameed et al., 2013), commitment (Wilkins et al., 2016), turnover intentions (Mignonac et al., 2006)".

In today's teaching profession, where expectations are increasing, the increase in teachers' workload affects teachers' OI significantly (Guglielmi et al., 2014). In addition, OI is the leading variable affecting teachers' job performance (Christ et al., 2003). The relationships between the leaders and teachers contribute to the formation of OI (Van Dick et al., 2007). At this point, it can be mentioned that organizational trust affects OI. There are studies supporting that there is a significant relationship between organizational communication and OI, which directly contributes to the formation of organizational trust (Yıldız, 2013). In this paper, teachers' tenure, RFC, and OT relationships, which affect the formation of OI, are discussed.

Organizational Trust

Organizational trust is the feeling of trust within the organization. Su et al. (2020) explains the trust as a positive psychological state and behavioral intention of individuals. It has also been stated that trust is not based on rational decisions. Organizational trust (OT) is the voluntary establishment of long-term relationships with organizations (Yu et al., 2018). Gustafson et al. (2021) discusses OT in three different periods as "trust building", "trust repair" and "trust preservation" and explains that this process is based on different emotional and cognitive principles. Although there are different approaches, OT supports the success of the organization in a social process (Pucetaite and Novelskaite, 2014). Leaders have a vital role in this process (Top et al., 2013). Organizational trust ensures that the organization-individual relationship remains strong, especially during periods of organizational breakdown. The effect of OT levels on organizations during the Covid 19 pandemic process has also been clearly seen (Lee and Li, 2021). In addition, from the point of view of institutionalism, OT represents the trust to the organization and managers.

Turkoz et al. (2013) explain the aims of the studies on OT in the literature as follows: "establishing relationships based on trust in organizations, employees' trust in their leaders and their organizations as a whole, creating employees who are emotionally attached to their organizations, satisfied with their jobs, do not complain about their organizations and do not want to leave". In the literature, the relationship between OT and the following concepts has been examined: organizational performance (Paliszkiewicz et al. 2014), work engagement (Lin, 2010), organizational citizenship behavior (Yildiz, 2019), organizational commitment (Dahmardeh and Nastiezaie, 2019), job stress (Lambert et al., 2022), job satisfaction (Erdal and Altindag, 2020), organizational justice (Sarıkaya and Kara, 2020), organizational justice (Lin ve Shin, 2021). In this research, the relationship between OT and OI have been discussed.

Readiness for Change

Organizations tend to change in the face of unexpected situations. This process of change is painful. In the literature, readiness for change (RFC) is discussed at organizational (Wang et al., 2020) and individual levels (Olafsen et al., 2020). At the organizational level, it is the organization's RFC as a whole. At the individual level, the focus is on individuals' attitudes towards change. This research is also at the individual RFC level. Armenakis et al. (1993) defined RFC as "the cognitive precursor to the behaviors of either resistance to, or support for, a change effort". At this point, it is clearly understood that RFC is a cognitive process. In this process, the RFC also expresses how ready the individuals within the organization are for change. Holt et al. (2007) explained that the RFC directly affects the trust. Asbari et al. (2021) emphasizes making individuals ready for change for high OT. Karsantik (2021) stated that teachers' RFC depend on school administration and RFC has a positive effect on innovation management. Novitasari (2021) argued that transformational leadership plays an important role in improving employee performance and the RFC is the hidden hero.

RFC and the following concepts have been examined in the literature: learning organizational culture (Al-Tahitah et al., 2020), organizational culture (Jones vd., 2005), leadership behavior and emotional intelligence (Gelaidan et al., 2018), organizational commitment (Nordin, 2012), self-efficacy (Emsza, 2016), organizational justice (Shah, 2011). In the continuation of the article, the literature research on the relations between concepts is presented and hierarchical research models are presented.

Literature review, hypotheses development and research models

In the literature, there are studies dealing with the relationship between OI and demographical factors (Hall et al., 1970). Hinrichs (1964) argues that employee tenures play an active role in the organizational values. March and Simon (1958) conducted the first studies on the relationship between tenure and identification. Hameed et al. (2013) explained that tenure played an active role in the identification process within the organization. Wan-Huggins et al. (1998) cited tenure as one of the variables affecting OI, as well as other individual characteristics. Hall and Schneider (1972) stated that there is a strong relationship between OI and tenure. Jones and Volpe (2011) also considered tenure among the control variables in their study, in which they examined the relationship between social identity and OI. In a study on auditors, Bamber and Iyer (2002) stated that tenure has a positive effect on OI. These studies in the literature support that organizational tenure have a positive and significant effect on OI. Therefore, the first hypothesis is as follows:

H1: Teachers' tenure has a positive and significant effect on OI.

The time spent in the organization is important in OI. Organizations are affected by environmental conditions over time, and of course individuals are also affected. For this reason, employees are expected to keep up with the changes in the organization. At this point, OI is affected by the experience of individuals as well as the ability of employees to keep up with and be prepared for changes. Hameed et al. (2013) stated that there is a positive relationship between OI and RFC. Drzensky et al. (2012) explained that OI has a significant effect on the RFC. Adaptation to cultural change is also important in this relationship. Hameed et al. (2019) proved that OI has a mediating effect in the relationship between involved communication and RFC. Shah et al. (2017) explained that OI plays an active role in the readiness of employees for change by affecting job satisfaction. Madsen et al. (2005) pointed out that there is a strong relationship between RFC and OI. Considering the relationship between OI and RFC, it is expected that the RFC of the employees as well as the tenure variable will have a significant effect on the OI. Therefore, the second hypothesis is as follows:

H2: Teachers' tenure and RFC have a significant positive effect on OI.

The effect of individuals' tenure and RFC on OI is discussed in the first and second hypotheses. In third hypothesis, it has been aimed to add OT to Model 2 as an independent variable. In a study on pilots, Li et al. (2021) found that OT had a positive and significant effect on OI. In a study conducted on blue collar employees in Turkey, Ertürk (2010) found that there is a positive relationship between trust in managers and OI. In a study conducted on bank employees, Tüzün and Çağlar (2009) found that OT has a mediating role in the relationship between "attractiveness of perceived organizational identity" and OI. In the study conducted for the employees in the petrochemical organization, De Roeck and Delobbe (2012) determined that OT has a mediating role in the relationship between the "corporate social responsibility" and the OI. In the study conducted on the sample of public health institutions employees, Tekingündüz et al. (2020) pointed out that there is a significant relationship between OI and OT. In a study conducted with employees in public institutions, Campbell and Im (2015) determined that senior leader interaction, supervisor interaction, and work group cooperation levels significantly affected OT, and OT had a significant effect on OI. The third hypothesis of the hierarchical regression model is as follows:

H3: Teachers' tenure, RFC and OT have a significant positive effect on OI.

In this study, it is aimed to apply hierarchical regression analysis. For this reason, 3 hypotheses and 3 research models are developed for these hypotheses. Research models are presented in Figure 1. In the first model, the effect of tenure on OI is examined. In the second model, the RFC variable has been added to the model by keeping the tenure constant. In the third model, organizational tenure and RFC variables have been kept constant and the OT variable has been added to the model. As a result of the research, the change in the effect levels of the variables on OI and the change in the model explanation rates have been determined.

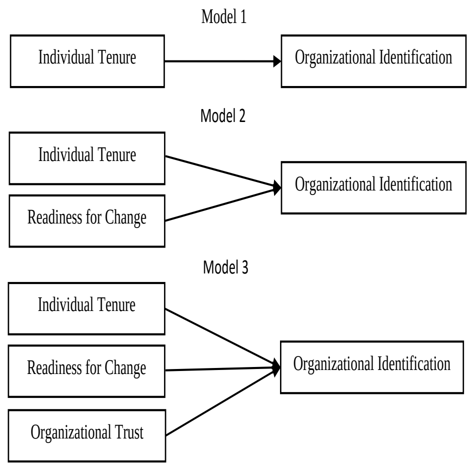

Figure 1. Hierarchical research models

Methodology

Measurements

Organizational identification, organizational trust and readiness for change scales have been used from the scales previously used in the literature. The Organizational identification scale has been taken from the study published by Male and Ashforth (1992). According to the reliability analysis findings of the scale, it has a high level of reliability (Cronbach alpha=0.87). The scale consists of one dimension and a total of 6 items. In addition, "organizational tenure" is among the individual antecedents of the scale ($\beta = 0.12$, $p < 0.05$).

The organizational trust scale has been developed by Nyhan and Marlowe (1997). The items of the scale were taken from the study by McAuley (2016). Organizational trust scale consists of 2 dimensions. These dimensions are trust manager and trust organization. The dimension of trust manager consists of 8 items. The dimension of trust institution consists of 4 items. There are 12 expressions in total.

The readiness for change scale is derived from "The margin life scale". The scale has bee developed by Hanpachern (1997). According to the reliability analysis findings of the scale, it has a high level of reliability (Cronbach alpha=0.82). It consists of 3 dimensions in total. These are promoting (4 items), participating (6 items), and resisting (4 items). The total number of items is 14. In this study, a 5-point Likert scale has been used (Organizational identification scale: "1" strongly disagree, "5" strongly agree, organizational trust scale: "1" nearly zero, "5" nearly 100%, readiness for change scale: "1" very unlikely, "5" very likely). In addition, the demographic characteristics of the teachers have been also asked in the questionnaire form (Gender, Marital Status, Age, Tenure, Type of School and Educational Status).

Sampling and limitations

This research has been conducted in the sample area of primary school teachers working in the province of Istanbul. Approximately 307 thousand primary school teachers are working in Turkey in 2020-2021. The sample area has been determined by random sampling method, since the universe is very large. Considering that the principles of being a primary school teacher are standard in Turkey, it is assumed that there are no great differences among teachers. For this reason, it has been evaluated that the sample area will represent the universe. Gürbüz and Şahin (2018: 130) declared that enough samples are 384 in cases where the universe is 500 thousand and above in social sciences. A total of 473 successful questionnaires have been collected in this study. Relationships between variables have made over this number. There are two main limitations of the research. These are time and cost constraints. The surveys have been collected in Istanbul in 2022. In Table 1, the frequency values of the sample area are presented. It is seen that approximately 70% of the teachers are women and approximately 80% are married. The largest about 40% of respondents are in the 34-41 age range and work in secondary schools. 86% of the participants have a bachelor's degree. In addition, about 37% of the teachers have less than 10 years of experience, about 28% of them have between 10 and 20 years of experience, and about 35% of them have more than 20 years of experience

Table 1. Frequency of the sample

Gender	No	%	Marital Status	No	%
Woman	330	69.8	Married	386	81.6
Man	140	29.6	Single	82	17.3
Total	473	100	Total	473	100
Age	**No**	**%**	**Tenure**	**No**	**%**
18-33	112	23.7	0-10	176	37.2
34-41	198	41.9	11-20	131	27.7
42-49	111	23.4	21-30	116	24.5
50 +	52	11	31 +	50	10.6
Total	473	100	Total	473	100
Type of School	**No**	**%**	**Educational Status**	**No**	**%**
Primary school	151	31,9	Associate degree	12	2.5
Middle school	188	39.7	Undergraduate	406	86
High school	134	28,4	Postgraduate	55	11.5
Total	473	100	Total	473	100

Findings

Reliability and validity of the scales

Three main variables have been used in this study. To make these variables measurable, the existing scales in the literature have been used. Basic information about the scales is presented in the measurements section of the research. These scales have been converted into a questionnaire and applied to the sample area. To test the reliability and validity of the applied scales, it is necessary to examine whether the data set has a normal distribution. The Kolmogorov and Smirnov normality test has been applied via SPSS to test the normal distribution. In addition, the normal distribution status has been determined by examining at the kurtosis and skewness values of the variables. The Kolmogorov and Smirnov normality test findings, kurtosis and skewness values are shown in Table 2. According to The Kolmogorov and Smirnov normality findings, it is seen that the data set does not have a normal distribution (Asymp. Sig.<0.05). However, Kline (2011:63) explained that if the kurtosis value of the variables is lower than "3" and the skewness value is lower than "10", it has a normal distribution. It is clearly understood that our data set has a normal distribution according to the kurtosis and skewness values of the variables.

Table 2. Frequency of the sample

Scales	N	Mean	SD	Kolmogorov-Smirnov Z	Asymp. Sig.	Skewness	Kurtosis
Organizational Identification (OI)	473	4.19	0.71	3.587	0.000	- 1.134	2.228
Organizational Trust (OT)	473	4.14	0.70	2.448	0.000	- 1.121	2.450
Readiness for Change (RFC)	473	4.10	0.44	4.001	0.000	0.251	0.006

Kaiser Meyer Olkin (KMO) and Bartlett's Test of Sphericity tests have been conducted to test the validity levels of the scales. The findings obtained are as seen in Table 3. KMO values of all scales are higher than 0.80. In addition, Bartlett's Test of Sphericity test significance level is less than 0.01. For the scales to be valid, the KMO values should be higher than 0.60 and the significance level of Bartlett's Test of Sphericity should be less than 0.01 (Tabachnick et al., 2007). At this point, it is understood that all scales are valid.

Table 3. KMO and Bartlett Tests

		Organizational Identification (OI)	Organizational Trust (OT)	Readiness for Change (RFC)
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.889	0.939	0.940
Bartlett's Test of Sphericity	**Chi-Square**	2817.636	6836.265	3303.517
	df	15	66	66
	Sig.	0.000	0.000	0.000

This research has been applied in Turkey. So, scale items were translated into Turkish. Brislin et al. (1973) points to the implementation of five basic steps in the application of scales in different languages. In this context, scale items were first translated into Turkish by the authors. Afterwards, Turkish items were translated back into English by language experts. Turkish items and English ittems were compared and it was examined whether there were differences in meaning. As a result of the examination, the final Turkish items of the scales were determined. Because the scales have been applied in a different language and culture structure, exploratory factor analyzes (EFA) of the scales have been performed. The EFA findings of the scales are as seen in Table 4. On the other hand, Büyüköztürk et al. (2017) emphasized that factor loads of scale items in social science research should be greater than 0.32. It has been determined that the factor loads of the 11th and 13th statements of the RFC scale expressions were less than 0.32. These two items have been removed from the RFC scale. All remaining factor loads are greater than 0.32. These findings explain that all the scale items have sufficient factor loading. OI and RFC scales are one-dimensional. OT scale has two dimensions: trust manager and trust organization. In addition, convergent and divergent validity analyzes of the scales have been performed. According to Fornell and Larcker (1981), the average variance extracted (AVE) value should be greater than 0.50 and the composite reliability (CR) value should be greater than the AVE value. According to the AVE and CR values, the convergent and divergent validity levels of all scales have been found to be at an acceptable level.

Table 4. EFA findings of OI, OT and RFC scales

Items	Factor Loads	Eigenvalues / Total Variance Percentage		AVE / CR
OI6- "If a story in the media criticized the school, I would feel embarrassed."	0.939			
OI5- "When someone praises this school, it feels like a personal compliment."	0.922			
OI2- "I am very interested in what others think about (name of school)."	0.905	4.718 / % 78.630		0.786 / 0.956
OI1- "When someone criticizes (name of school), it feels like a personal insult."	0.893			
OI3- "When I talk about this school, I usually say 'we' rather than 'they'."	0.848			
OI4- "This school's successes are my successes."	0.806			
TM5- "My level of confidence that my leader will be able to do his or her job in an acceptable manner is."	0.900			
TM8- "My level of confidence that my leader will think through what he or she is doing on the job is."	0.874			
TM7- "My confidence in my leader to do the job without causing other problems is."	0.867			
TM2- "My level of confidence that my leader will make well thought out decisions about his or her job is."	0.858	6.457 / % 53.806		
TM4- "My level of confidence that my leader has an acceptable level of understanding of his/her job is."	0.856			
TM1- "My level of confidence that my leader is technically competent at the critical elements of his or her job is."	0.845		3.331 / % 81.562	0.655 / 0.956
TM6- "When my leader tells me something, my level of confidence that I can rely on what they tell me is."	0.833			
TM3- "My level of confidence that my leader will follow through on assignments is."	0.520			
TI4- "The degree to which we can depend on each other in this organization is."	0.922			
TI3- "The level of trust among the people I work with on a regular basis is."	0.919	3.331 / % 27.756		
TI2- "The level of trust between supervisors and workers in this organization is."	0.695			
TI1- "My level of confidence that this organization will treat me fairly is."	0.464			
RFC6- "Doing things in a new or creative way is."	0.852			
RFC5- "I can find ways to make it fails."	0.837			
RFC4- "Creating new ideas is."	0.831			
RFC10- "Learning new things is."	0.787			
RFC9- "Willing to be a part of the change program is."	0.762			
RFC3- "Willing to be a part of the new project is."	0.751			
RFC12- "My support for change is."	0.742	6.593 / % 54.593		0.549 / 0.935
RFC7- "Changing the way I work because of the change is."	0.726			
RFC14- "Selling ideas about the change."	0.708			
RFC2- "Solving organization problems is."	0.656			
RFC8- "1 wouldn't take the blame when it fails."	0.638			
RFC1- "Willing to work more because of the change is."	0.544			

Notes: "OI: Organizational Identification, TM: Trust Manger, TI: Trust Institution, RFC: Readiness for Change"

Confirmatory factor analysis (CFA) findings are as in Table 5. CFA has done through AMOS. All factor loads are at an acceptable level (Tabachnick et al., 2007). The fit values of all measurement models are at the acceptable level (Byrne, 2011). In addition, the reliability analysis findings of the scales via SPSS are presented in Table 5. Cronbach's alpha findings of organizational identification, organizational trust and readiness for change scales are 0.943, 0.962 and 0.913, respectively. These values explain that the scales have a very high level of reliability

Table 5. CFA and Cronbach's alpha findings of OI, OT, and RFC scales

Parameter Estimates	Estimate	S.E.	Fit Values	Cronbach's Alpha(α)
Measuring Model				
OI1 <--- OI	0.838*	0.040	"X2 [16.5, N=473] = 6, CMIN/df (2.756) **, CFI (0.996)****, RFI (0.985)****, IFI (0.996)****, TLI (0.991) NFI (0. 994)****, RMSA (0.061)*****"	0.943
OI2 <--- OI	0.860*	0.041		
OI3 <--- OI	0.825*	0.034		
OI4 <--- OI	0.754*	0.038		
OI5 <--- OI	0.923*	0.035		
OI6 <--- OI	0.930*	0.034		
TM1 <--- TM	0.876*	0.039	"X2 [196.8, N=473] = 49, CMIN/df (4.017)***, CFI (0.978)****, RFI (0.962)****, IFI (0.978)****, TLI (0.971) NFI (0.972)****, RMSA (0.080)*****"	0.962
TM2 <--- TM	0.888*	0.038		
TM3 <--- TM	0.639*	0.039		
TM4 <--- TM	0.909*	0.035		
TM5 <--- TM	0.936*	0.036		
TM6 <--- TM	0.891*	0.038		
TM7 <--- TM	0.919*	0.036		
TM8 <--- TM	0.907*	0.034		
TI4 <--- TI	0.714*	0.041		
TI3 <--- TI	0.726*	0.041		
TI2 <--- TI	0.987*	0.042		
TI1 <--- TI	0.908*	0.042		
RFC1 <--- RFC	0.478*	0.043	"X2 [191.6, N=473] = 48, CMIN/df (3.992)***, CFI (0.956)****, RFI (0.921)****, IFI (0.956)****, TLI (0.940) NFI (0.943)****, RMSA (0.080)*****"	0.913
RFC2 <--- RFC	0.632*	0.024		
RFC3 <--- RFC	0.684*	0.033		
RFC4 <--- RFC	0.837*	0.025		
RFC5 <--- RFC	0.835*	0.024		
RFC6 <--- RFC	0.859*	0.025		
RFC7 <--- RFC	0.670*	0.030		
RFC8 <--- RFC	0.560*	0.034		
RFC9 <--- RFC	0.692*	0.030		
RFC10 <--- RFC	0.785*	0.024		
RFC12 <--- RFC	0.670*	0.025		
RFC14 <--- RFC	0.670*	0.024		

Notes: " p<0.01, ** CMIN/df < 3 (Good fit), *** 3<CMIN/df < 5 (Acceptable fit) **** CFI, NFI, RFI, IFI, TLI > 0.90 (Good fit), ***** 0.05 <RMSA< 0.08 (Acceptable fit).*

Test of the research hypothesis

Before testing the hypotheses, correlation relationships between the variables have been determined. The mean, standard error and correlation relationships of the variables are presented in Table 6. It has been determined that the correlation relations between all variables were significant. The highest correlation relationship is between OI and OT ($r(473)=0.738$, $p<0.01$). In addition, the correlation between OI and RFC ($r(473)=0.314$, $p<0.01$) and the correlation between OT and RFC ($r(473)=0.284$, $p<0.01$) have been found to be low.

Table 6. Correlation relations of OI, OT and RFC

Variables	OI	OT	RFC
OI	1		
OT	0.738*	1	
RFC	0.314*	0.284*	1

*Notes: * p < 0.01 (2 tailed)*

In the first step of the hierarchical regression analysis, the effect of teachers' tenure on OI has been examined (Model 1). In the second step of the research, teachers RFC have been included in the model (Model 2). In the third step of the study, teachers OT levels have been included in the model (Model 3). Hierarchical regression analysis has been performed in SPSS. The hierarchical regression analysis findings are presented in Table 7. The first hypothesis, second hypothesis and third hypothesis of the research have been tested with Model 1, Model 2, and Model 3, respectively.

In Model 1, tenure is the independent variable and OI is the dependent variable. According to Model 1, the tenure variable has a significant effect on the OI variable. ($F(1,471)=3.451$, $p=0.064<0.10$). The simple regression equation of Model 1 is "OI=4.041+0.085 Tenure". At this point, it has been determined that the OI levels of the teachers were significantly affected by the tenure, but the effect level (Beta=0.085) and the percentage of explanation of the model (Adjusted R Square=0.005) were very low. According to these findings, the first hypothesis has been accepted.

In Model 2, tenure and RFC are independent variables, OI is the dependent variable. According to Model 2, tenure and RFC variables have a significant effect on the OI variable ($F(2,470)=29.114$, $p<0.01$). The hierarchical regression equation of Model 2 is "OI=1.909+0.109 Tenure+0.322 RFC". At this point, it is seen that teachers' tenure and RFC levels are significantly affected by their OI levels, and the percentage of model explanation increases according to Model 1 (Adjusted R Square=0.106). According to these findings, the second hypothesis has been accepted.

In Model 3, tenure, RFC and OT are independent variables, OI is the dependent variable. According to Model 3, tenure, RFC and OT variables have a significant effect on the OI variable ($F(3,469)=205.601$, $p<0.01$). The hierarchical regression equation of Model 3 is "OI=0.258+0.065 Tenure+0.192 RFC+0.713 OT". Model 3 has been determined as the model with the highest percentage of disclosure compared to both Model 2 and Model 1 (Adjusted R Square = 0.565). According to these findings, the third hypothesis was accepted.

Table 7. Hierarchical Regression Analysis Findings

Variables	Model-1		Model-2		Model-3	
	Beta	SH	Beta	SH	Beta	SH
Tenure	0.085*	0.028	0.109*	0.027	0.107**	0.019
RFC			0.322**	0.027	0.122**	0.050
OT					0.706**	0.032
R	0.085		0.332		0.754	
R Square	0.007		0.110		0.568	
Adjusted R Square	0.005		0.106		0.565	
R Square Change	0.007		0.103		0.458	

*Notes: * p < 0.10, ** p < 0.01*

Conclusion and implications

In this study, the effects of teachers' tenure, RFC and OT perceptions on OI have been examined. In this direction, hierarchical regression analysis has been applied. In the first model of hierarchical regression analysis, the effect of organizational tenure on OI has been determined. According to Model 1 findings, it was seen that tenure has a significant effect on OI. However, it has been understood that the effect size and the corrected R square value of the model were very low. This result is in parallel with the studies in the literature supporting the effect of tenure on OI (Hinrichs, 1964; March and Simon, 1958; Hall and Schneider, 1972; Wan-Huggins et al., 1998; Bamber and Iyer, 2002; Jones and Volpe, 2011; Hameed et al., 2013). Due to the low R square value, it has been concluded that tenure is not sufficient to explain the OI levels of the teachers. Therefore, the RFC variable has been included in Model 1 and Model 2 has been created. According to Model 2 findings, it has been determined that both tenure and RFC have a significant effect on OI. This result is in line with the findings in the literature (Madsen et al., 2005; Drzensky et al., 2012; Shah et al., 2017 Hameed et al., 2019). However, when the R squared change is considered, it is seen that there is an improvement in the model at a rate of about 10%. Although this rate of change is at an acceptable level, it has been understood that the percentage of total R squared of Model 2 is insufficient to explain OI. At this point, Model 3 has been created by adding the OT variable to Model 2. It has been determined that all independent variables in this model have a significant effect on OI. This finding is parallel to the findings obtained in the literature (Tüzün and Çağlar, 2009; Ertürk, 2010; De Roeck and Delobbe, 2012; Campbell and Im, 2015; Tekingündüz et al., 2020; Li et al., 2021). The R squared change between Model 3 and Model 2 increased by about 45%. At this point, it has been understood that OT is the most important independent variable in the explanation of OI. The total R squared value of Model 3 increased to approximately 56%. This level supports that the simultaneous effects of organizational tenure, RFC and OT are more successful in explaining OI.

Considering the results, the implications for school administrators are as follows: (i) In the evaluation of OI levels, only teachers' tenure should not be considered. (ii) To keep the OI levels of teachers high in organizational changes, it is necessary to determine the level of preparation of teachers against changes, to identify deficiencies and to raise awareness to break resistance to change. (iii) Teachers' trust towards school administrators and the institution should be kept at a high level. The implications for institutions are as follows: (i) Teachers' sense of belonging to the institution is not only related to the duration of their employment in the institution, but also to their trust in the institution. (ii) It should be considered that teachers' degree of readiness for change is important in changes related to the institutional structure and that teachers' OI levels play an important role in the change processes. (iii) OT is an important parameter in institution-teacher identity matching. Ultimately, teachers' OI should be evaluated by considering more than one factor, not a single factor.

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Received Date: 10 May 2022 I Accepted Date: 03 August 2022

OPUS Journal of Society Research

RESEARCH ARTICLE

Literature Teaching Models: A Review on Turkish Textbooks

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July 2022
Volume:19
Issue:48
DOI: 10.26466//opusjsr.1114735

Citation:
Demirgüneş, S. and Özbek, B. (2022). Literature teaching models: A review on Turkish textbooks. *OPUS– Journal of Society Research, 19*(48), 648-656.

Abstract

The most basic tool in the language teaching process is texts. Especially, modern literature teaching is based on the texts. Educational activities carried out with texts that carry the aesthetic values of the language are known to be more effective in the learning process. Besides the basic language-specific features and vocabulary teaching prioritized by curriculums, textbooks should be able to convey or impart the elements of creative thinking, critical thinking, discussion, aesthetic value and cultural heritage to students. The inculcation of these features is possible with the conduct of teaching on the basis of specific and effective models. The current study describes on which literary model (individual model, cultural model, linguistic model) the texts in Turkish textbooks are constructed. Thus, the values of texts in the teaching process will be determined. In this context, the poems in the Turkish textbooks taught in the 5th, 6th, 7th and 8th grades in the 2021-2022 school year were determined and then it was determined on which model these poems are constructed. As a result, it was concluded that while the texts constructed on the basis of the individual model and cultural model are dominant, the texts constructed on the basis of the linguistic model are few in number.

Keywords: *Language and Literature Teaching, Poem, Teaching Models, Turkish Textbooks.*

Öz

Dil öğretim sürecinde en temel araç metinlerdir. Özellikle, modern edebiyat öğretimi metinler üzerine kuruludur. Metinler içerisinde, dilin estetik değerlerini taşıyan metinlerle yapılan eğitim öğretim etkinliklerinin öğrenme sürecinde daha etkin olduğu bilinmektedir. Dile özgü temel özelliklerin ve programların öncelediği sözcük öğretiminin ötesinde ders kitaplarında öğrencilere yaratıcı düşünme, eleştirel düşünme, tartışma, estetik değer, kültürel miras unsurlarının da aktarılabilmesi veya kazandırılabilmesi gerekmektedir. Bu özelliklerin kazandırılabilmesi öğretimin belirli ve etkin modellerle yürütülmesi ile mümkündür. Bu çalışma Türkçe ders kitaplarında yer alan metinlerin hangi edebiyat modeli (bireysel model, kültürel model, dilsel model) temelinde kurgulandığını betimlemektir. Böylelikle metinlerin öğretim sürecindeki değerleri de belirlenebilecektir. Bu bağlamda 2021-2022 eğitim öğretim yılında 5, 6, 7 ve 8. sınıflarda okutulan Türkçe ders kitaplarında yer alan şiirler belirlenmiş ve bu şiirlerin hangi model çerçevesinde kurgulandığı saptanmıştır. Sonuç olarak bireysel model ve kültürel modelle kurgulanmış metinlerin baskın biçimde yer aldığı dilsel modelle kurgulanmış metinlerin ise sayıca az olduğu belirlenmiştir.

Anahtar Kelimeler: *Dil ve Edebiyat Öğretimi, Şiir, Öğretim Modelleri, Türkçe Ders Kitapları.*

Introduction

Language teaching is carried out through texts. There are different definitions of the text as the main object of language teaching in the literature. Güneş (2013) defines the concept of text as structures in which knowledge, emotions and thoughts are placed according to various figural, expressive and punctuation features. Text is a form of production in which language is used. Emotions and thoughts are embodied in the context of a text.

A text is a language system that is produced orally or in writing by one or more people in a certain communicative context (Günay, 2007, p.44).

Text descriptions are mostly related to through which dimension of language (written or spoken language) it is studied. Without entering into such a discussion, the text is taken as "everything with a message" in the current study. As a matter of fact, the receiver (listener, reader, observer, viewer, etc.) communicates with the transmitting object as long as he/she can make sense of any world reality and thus renders the object a "text".

Texts have been the main sources of the language teaching process from past to present. The use of texts in language teaching is not based on practical and theoretical research. However, literary texts are taken as sample texts because they are well written, reflect the culture of a country, and have a special role in language and culture teaching. According to the traditional methods, language is taught better with literary texts, they are presented to students as a model or example, and accepted as a special support in the education process. In addition, they are considered important for teaching vocabulary to students, conducting various research and teaching meaning. During the education process, the student is expected to memorize these texts, to study them again and again, to show that he/she has internalized them and to benefit from them to a great extent. It is considered that literary texts offer quality expressions and comments to students at a level that no other text can provide (Cuq and Gruca, 2005; as cited in Güneş, 2013, p.613).

Since the primary goal of teaching Turkish is to train thinking and sensitive individuals who have acquired a culture of reading and developed comprehension and expression skills (Sever, 2004; Kavcar, 1996, p.3; Aslan, 2007a; 2007b; Göğüş, 1993; Dilidüzgün, 2003; Özdemir, 2002, p.9; Akyol, 2006, p.1; Sever, Kaya, & Aslan, 2006, p.12; Alperen, 1991: 11; Çotuksöken, 2010, p.14; Kavcar, Oğuzkan, & Hasırcı, 2016, p.14), it is necessary to include the works of children's literature suitable for the child's developmental level and prepared with artistic sensitivity in Turkish teaching environments as an effective stimulus to achieve this goal because the most important tool of teaching Turkish is literary texts that reflect the vocabulary and expression possibilities of Turkish and that are written in accordance with the developmental level, age and interest of the child (Aslan, 2006; Çer, 2016).

Thus, it is first necessary to define the literary text. According to Aktaş (2011, p.625), "literary text, like other works of art, expresses a human characteristic in a concrete way by interpreting and transforming the reality that is lived, thought and conceived, based on the mentality, taste and understanding of the period in which the work was created. In other words, the literary text establishes a more inclusive and encompassing reality based on reality." It is necessary to position literary texts as the main subject of the literary world and the education-teaching process, and literature directly conveys the indicators of human life to us because "the subject of both literature and education is human. The adventures of mankind on earth, their relations with their natural and social environment, and their longing for a healthy life form the common theme of these two fields." (Kavcar, 2017, p.2). Texts draw attention not only as the tools of mother tongue teaching but also language teaching in general. In this context, Widdowson (1983, p.34) thinks that while learning a foreign language, a literary text will develop students' discourse power and reveal their abilities in using grammar. In addition to this, literary texts are the texts in which the examples of the most beautiful usage of the language are exhibited. Unlike other text types, they are texts that use a more indirect and implicit language and have a special richness of meaning that cannot be resolved at the first reading (Aydın and Torusdağ, 2014).

In language teaching, texts are a tool to develop language, mental, social and mental independence skills. In other words, texts are used as tools to teach students various skills. According to the constructivist approach, the text should not be a goal, and the text should not be examined in depth and the information in it should not be memorized by students. In other words, the skills to be developed in the student should be the goal, and the texts should be used primarily to improve the students' language skills such as listening, reading, writing, speaking, visual reading and presentation. In order to develop the mental skills of students, they should be encouraged to be engaged in processes involving understanding the text, thinking about it, making inferences, questioning and evaluation. Understanding requires various mental activities such as examination, selection, decision making, interpretation, analysis-synthesis and evaluation. In the comprehension process, students should examine the new information presented in the text in the light of their prior knowledge, think about them and construct them in their minds. For this reason, emphasis has been placed on conducting studies to contribute to better understanding of the text (Güneş, 2013). In the process of making sense of the text, there should be a close interaction between the text and the reader. The strength of this interaction depends on the quality of the text, and the intensity of this power will positively foster the meaning-making process because "in addition to the importance of prior knowledge in reader-text interaction, another important point that should be emphasized is the interest that directs the person to reading, in other words, the purpose of reading that leads to the reading activity. Indeed, one approaches the text with a certain orientation. The text presents a certain information structure; the reader makes selections from the transmitted information according to his/her own reading activities and prior knowledge, and makes arrangements in accordance with his/her purposes. The information obtained from the text creates certain changes in the prior knowledge and interests of the reader, adding new dimensions to them." (Polat, 1990, p.78).

Besides the effective "mediation" function of texts in language teaching, among text types, especially "poetry's clear reflection of the opposition between text and the world" and its "seductiveness" in this regard (Bennett and Royle, 2018, p. 49) cause the poetry genre to be prioritized. In the context of teaching, the fact that the poems are loaded with the aesthetic values of the language, that they have natural attractiveness, that they are easily memorable and persuasive are enough to put the poem one step ahead among the text types. Within the context of the current study, we can justify the reason for choosing poems, especially in terms of text type, with the criteria just mentioned above.

Language and Teaching Models

There are many different models used in language/ literature teaching. We can list some of these models as follows:

1. Three models
   a. exploration
   b. concept introduction
   c. concept application
2. 4E model
   a. exploration
   b. explanation
   c. expansion
   d. evaluation
3. Cooperation-based learning model
4. 7E model
   a. elicit
   b. engage
   c. explore
   d. explain
   e. elaborate
   f. evaluate
   g. extend

Carter and Long (1991), in their study of "Literature Teaching", found many reasons to teach literature when they developed models each of which included a set of learning objectives for literature students (Carter, Long, 1991; as cited in Mlcakova, 2013). In this study, they developed three main approaches to teaching literature (Carter and Long, 1991, p.2; as cited in Padurean, 2015). These are: "Linguistic model, cultural model and individual model."

Cultural Model

The cultural model teaches the student how to deal with a literary work in the target language. According to Padurean (2015), it offers an interdisciplinary approach to teaching as it focuses not only on language acquisition but also on knowledge of a country's culture and ideologies. It also helps students go beyond the vocabulary to other components that make up a nation. Students are asked to explore and interpret the social, political, literary and historical context of a text (Yimwilai, 2015, p.15; as cited in Padurean, 2015). The cultural model in literature teaching has been developed to transfer the cultural values of a nation to its own generations. In the cultural model, it is aimed to introduce students to local and universal culture through literary works (Çelik, 2018).

As cited by Bibby and Mcllroy from Scott (2013), Scott advocates the use of literature as a cultural tool. Literature can be seen as a product, representative and descriptor of the historical and social situation. Thus, literary texts can be used to engage students in, motivate them for and create deeper ties with target cultures (Lazar, 1993; as cited in Bibby and Mcllroy, 2013).

Mlcakova (2013, p.13) says that with authentic texts, students can form a broader perception, they can also gain the ability to recognize important expressions belonging to a certain culture or historical period, and they will learn more about people's ideas, feelings and perspectives through reading.

Similar to Mlcakova, Göğüş (1978, p.84) also argues that one of the goals of literary education is to enter students' world of thought with literary and scientific works and to direct them towards serving their own nation and humanity and thus they can recognize the development and characteristics of their own culture and history. At the same time, he says that they will understand and protect the value of human rights and freedom and democratic government.

Linguistic Model

The linguistic model is based on the development of students' grammar by working with familiar grammar, vocabulary and discourse categories. It focuses on how language is used in literary texts. It fosters the acquisition of information about the target text, not creative thinking. This approach is considered too technical and ignores literature, the pleasure of reading. Texts are approached with a systematic and methodological approach (Padurean, 2015).

Mlcakova (2013, p.13), on the other hand, states that teachers should pay attention to the use of authentic texts and that these texts have the feature to activate linguistic skills as follows: "Literature consists of language. Therefore, language takes place as a tool (instrument) between the authentic text and the learner. The questionable aspect of authentic texts is whether literary texts are a source of correct language and vocabulary. In some special cases, teachers may need to clarify this issue." As cited by Bibby and Mcllroy (2013), teachers may choose to focus on how language is used in a particular text. A literary text can be used to illustrate examples of specific grammatical topics and lexical items. For more advanced students, teachers can ask them to participate in the stylistic analysis of the text.

Among the proposed benefits of the linguistic model, it is mentioned that it improves vocabulary, increases reading fluency, fosters improved interpretation and inferential skills, and provides a more diverse language due to the use of authentic texts (Widdowson, 1979; as cited in Bibby & Mcllroy, 2013).

Individual Model

The individual model offers a more student-centred approach to literary text studies. The aim is to use literature as an educational tool, to increase critical awareness and to enable students to evaluate and discuss the topics in the text (Bibby and Mcllroy, 2013).

The individual model is an attempt to establish a link between the linguistic model and the cultural model. The focus is placed on the use of language but it is used in a particular cultural context. Students are not only passive recipients of knowledge, they are also expected to be intellectually and emotionally involved in the lesson and especially in reading activities. Literature is used as a resource, not just a subject of study (Padurean, 2015). In another way (Carter & Long, 1991, p.3-4; as cited in Padurean, 2015), students improve their knowledge of literature. Through this approach to literature, students are encouraged to express their views and beliefs, make connections between their own experiences and texts, and use critical thinking.

Bibby and Mcllroy (2013) suggest that this model is used in different contexts, but is particularly suitable for childhood and adolescence periods, and therefore should be used in high school and undergraduate classrooms. Examples might include reader response activities that personalize the reading experience (Rosenblatt, 1938; as cited in Bibby & Mcllroy, 2013) or responses to a text that help connect reading to students' lives (Showalter, 2003; as cited in Bibby and Mcllroy, 2013).

Database

As the database, 32 poems in Turkish 5th, 6th, 7th, 8th grade Turkish textbooks, which were determined as textbooks to be used in classes in the 2021-2022 school year, were analyzed. The information about the poems analyzed is classified below according to their grade levels. Accordingly, six poems from the 5th grade Turkish textbook were included in the analysis:

Table 1. 5th Grade Database (6 poems)

Grade Level	Name of the Poem	Poet	Name of the Theme
5th Grade	Memleket İsterim	Cahit Sıtkı Tarancı	Individual and Society
5th Grade	Mustafa Kemal'in Kağnısı	Fazıl Hüsnü Dağlarca	National Independence and Atatürk
5th Grade	Yarın Gene Sabah Olacak	Nimetullah Hafız	Nature and Universe (Free Reading Text)
5th Grade	Kilim	Fatih Kısaparmak	Our National Culture
5th Grade	Bilinçli Tüketici	Dursun Bulut	Citizenship
5th Grade	Çiftçi İle Çocukları	Orhan Veli Kanık	Citizenship

While six poems were included from the 6th grade Turkish textbook, seven poems were included from the 7th grade Turkish textbook.

Table 2. 6th Grade Database (6 poems)

Grade Level	Name of the Poem	Poet	Theme of the Poem
6th Grade	Yaştan Gileyliyim	Bahtiyar Vahapzade	Virtues
6th Grade	Bebeklerin Ulusu Yok	Ataol Behramoğlu	Individual and Society (Free Reading Text)
6th Grade	Ben Mustafa Kemal'im	Süleyman Özbek	National Independence and Atatürk
6th Grade	Rüzgâr	Cahit Külebi	Nature and Universe
6th Grade	Ay Şairi	Aytül Akal	Art
6th Grade	Sağlığına Dikkat Et	Arife Hancı	Health and Sports

Table 3. 7th Grade Database (7 poems)

Grade Level	Name of the Poem	Poet	Name of the Theme
7th Grade	Baba, Bana Bir Şiir Bul	Mehmet Beşeri	Virtues
7th Grade	Bir Mustafa Kemal Vardı	Ümit Yaşar Oğuzcan	National Independence and Atatürk
7th Grade	Yurt Türküsü	Vasfi Mahir Kocatürk	Our National Culture
7th Grade	Güz	Arif Nihat Asya	Nature and Universe
7th Grade	Kır Çiçekleri	Hasan Lâtîf Sarıyüce	Nature and Universe (Free Reading Text)
7th Grade	Sazıma	Âşık Veysel Şatıroğlu	Art
7th Grade	Ağaç ve Sen	Hasan Ali Yücel	Personal Development

While twelve poems from the 8th grade Turkish textbook were included in the analysis, a total of thirty-one poems constituted the entire database (5th, 6th, 7th, 8th grades).

Table 4. 8th Grade Database (12 poems)

Grade Level	Name of the Poem	Poet	Name of the Theme
8th Grade	Atatürk'ü Gördüm Düşümde	Rıza Ergüven	National Independence and Atatürk
8th Grade	Bir Bayrak Rüzgâr Bekliyor	Arif Nihat Asya	National Independence and Atatürk
8th Grade	Kaldırımlar	Necip Fazıl Kısakürek	Individual and Society
8th Grade	Azerbaycan-Türkiye	Bahtiyar Vahapzade	Individual and Society
8th Grade	Arıyorum	Yusuf Yanç	Individual and Society
8th Grade	Türkiye	Attilâ İlhan	Time and Space
8th Grade	İstanbul'la Hasbihal	Zeynep Beksaç	Time and Space
8th Grade	Vatan Sevgisini İçten Duyanlar	Âşık Veysel Şatıroğlu	Our National Culture
8th Grade	Uzun İnce Bir Yoldayım	Âşık Veysel Şatıroğlu	Our National Culture
8th Grade	İstanbul'u Dinliyorum	Orhan Veli Kanık	Our National Culture
8th Grade	Anadolu'da Bahar	Abdurrahim Karakoç	Nature and Universe
8th Grade	Yaşamaya Dair	Nazım Hikmet Ran	Citizenship

Data Analysis

In this section, the analysis of the works reflecting the literature teaching models presented in the conceptual framework will be described on an example for each.

If we go according to the order of the models presented in the conceptual framework, we will start with an example constructed on the "cultural model". The poem "Azerbaycan-Türkiye (Ing.: Azerbaijan-Turkey"), which is at the 8th grade level, has an interdisciplinary teaching purpose as it also focuses on the knowledge of the cultures and ideologies of the two countries. With this poem, students find the opportunity to focus on national values beyond the text dimension with the lines "*bir ananın iki oğlu, bir ağacın iki kolu, o da ulu, bu da olu*", *birdir bizim hâlimiz, dileğimiz hayalimiz, bayraklarda hilalimiz…* (Ing.: *two sons of a mother, two branches of a tree, this is great, that is great as well", our state is one, our wish is our dream, our crescent on flags* ..."). In addition, the poem introduce students to the local and universal cultural values of the two nations with the lines "*dinimiz bir, dilimiz bir, ayımız bir, yılımız bir, aşkımız bir, yolumuz bir…* (Ing.: *our religion is one, our language is one, our month is one, our year is one, our love is one, our path is one…*"). In this context, we can state that the poem is constructed on the basis of the cultural model.

In the linguistic model, the reader should perceive the difference in the categories of discourse and there should be texts that contribute to the vocabulary and enrich it. The poem "*Yaştan Gileyliyim*" at the 6th grade level is of this type. In the poem, many words in the following lines; "*Öyle sanırdım ki, kırk, kocalıktır.*", "*kavurga yiyerek ders gittiğim*", *Nezil kırbaç vurup at seğirttiğim*", "*Nedir gönlümdeki bu duygular bes*?" (Ing.: *I used to think that forty is good to have a husband.", "I went to school by eating corns", "I whipped and ran my horse", "What are these feelings in my heart*?") have the potential to enrich the vocabulary of the students in the relevant age group. In addition, grammatical awareness was created in students by creating a discourse difference in poetry. In this context, the related poem was coded as the "linguistic model" in the current study.

If we look at the work that conveys the individual model design, the text "Memleket İsterim", one of the 5th grade level works, was constructed on the basis of this model.

Tr.	*Ing.*
• Memleket isterim, • Gök mavi, dal yeşil, tarla sarı olsun; • Kuşların, çiçeklerin diyarı olsun. • Memleket isterim, • Ne başta dert ne gönülde hasret olsun; • Kardeş kavgasına bir nihayet olsun. • Memleket isterim, • Ne zengin fakir ne sen ben farkı olsun; • Kış günü herkesin evi barkı olsun. • Memleket isterim, • Yaşamak, sevmek gibi gönülden olsun; • Olursa bir şikâyet ölümden olsun.	• I want a homeland, • Let the sky be blue, the branch green, the field yellow; • Let it be the land of birds and flowers. • I want a homeland, • Let there be no trouble in the head, no longing in the heart; • Let there be an end to the sibling rivalry. • I want a homeland, • Let there be no difference between rich and poor, you and me; • Let everyone has a home in winter. • I want a homeland, • Let the life be from the heart like love; • If you have a compliant, let it be from the death.

In the poem called "Memleket İsterim", the following lines; "*Ne başta dert ne gönülde hasret olsun; Kardeş kavgasına bir nihayet olsun.*", "*Ne zengin fakir ne sen ben farkı olsun; Kış günü herkesin evi barkı olsun*", "*Yaşamak, sevmek gibi gönülden olsun; Olursa bir şikâyet ölümden olsun.*" (Ing.: "*Let there be no trouble in the head, no longing in the heart, Let there be an end to the sibling rivalry*", "*Let there be* *no difference between rich and poor, you and me, Let everyone has a home in winter", "Let the life be from the heart like love, If you have a compliant, let it be from the death*"), are directly related to the use of the language and thus allow readers to establish connections with their own experiences in their minds and to discuss.

With this work, the reader will personalize his/her reading experience and will begin to reconstruct his/her knowledge of the world with the world of poetry through the contrasts (*rich / poor*) in the poem. In this context, we can directly code the work as an "individual model".

Findings

In this section, the findings of the analysis of the database will be presented in accordance with the grade level.

Table 5. Table of the Findings of the 5th Grade Database

Grade Level	Name of the Poem	Poet	Name of the Theme	Type of the Model
5th Grade	Memleket İsterim	Cahit Sıtkı Tarancı	Individual and Society	Individual Model
5th Grade	Mustafa Kemal'in Kağnısı	Fazıl Hüsnü Dağlarca	National Independence and Atatürk	Cultural Model
5th Grade	Yarın Gene Sabah Olacak	Nimetullah Hafız	Nature and Universe (Free Reading Text)	Individual Model
5th Grade	Kilim	Fatih Kısaparmak	Our National Culture	Linguistic Model
5th Grade	Bilinçli Tüketici	Dursun Bulut	Citizenship	Individual Model
5th Grade	Çiftçi İle Çocukları	Orhan Veli Kanık	Citizenship	Individual Model

When the 5th grade level findings are examined, it is seen that four of the six texts were constructed with the individual model, and one with the linguistic model and one with the cultural model. These findings show that 5th grade students are often introduced to texts that are constructed on the basis of the individual model.

Findings for the 6th Grade Database

When the 6th grade level findings are examined, it is seen that the texts were dominantly constructed on the basis of the individual model, similar to the 5th grade. Of the six texts in the database, four were constructed with the individual model, one with the cultural model and one with the linguistic model.

Table 6. Table of the Findings of the 6th Grade Database

Grade Level	Name of the Poem	Poetry	Name of the Theme	Type of the Model
6th Grade	Yaştan Gileyliyim	Bahtiyar Vahapzade	Virtues	Linguistic Model
6th Grade	Bebeklerin Ulusu Yok	Ataol Behramoğlu	Individual and Society (Free Reading Text)	Individual Model
6th Grade	Ben Mustafa Kemal'im	Süleyman Özbek	National Independence and Atatürk	Cultural Model
6th Grade	Rüzgâr	Cahit Külebi	Nature and Universe	Individual Model
6th Grade	Ay Şairi	Aytül Akal	Art	Individual Model
6th Grade	Sağlığına Dikkat Et	Arife Hancı	Health and Sports	Individual Model

When the 7th grade Turkish textbook is examined, it is seen that four of the seven poems were constructed with the cultural model while three with the individual model.

Table 7. Table of the Findings of the 7th Grade Database

Grade Level	Name of the Poem	Poetry	Name of the Theme	Type of the Model
7th Grade	Baba, Bana Bir Şiir Bul	Mehmet Beşeri	Virtues	Individual Model
7th Grade	Bir Mustafa Kemal Vardı	Ümit Yaşar Oğuzcan	National Independence and Atatürk	Cultural Model
7th Grade	Yurt Türküsü	Vasfi Mahir Kocatürk	Our National Culture	Cultural Model
7th Grade	Güz	Arif Nihat Asya	Nature and Universe	Cultural Model
7th Grade	Kır Çiçekleri	Hasan Lâtîf Sarıyüce	Nature and Universe (Free Reading Text)	Cultural Model
7th Grade	Sazıma	Âşık Veysel Şatıroğlu	Art	Individual Model
7th Grade	Ağaç ve Sen	Hasan Ali Yücel	Personal Development	Individual Model

While six of the twelve poems in the 8th grade Turkish textbook were constructed with the cultural model, three of them with the cultural model and three of them with the individual model.

Table 8. Table of the Findings of the 8th Grade Database

Grade Level	Name of the Poem	Poetry	Name of the Theme	Type of the Model
8th Grade	Atatürk'ü Gördüm Düşümde	Rıza Ergüven	National Independence and Atatürk	Cultural Model
8th Grade	Bir Bayrak Rüzgâr Bekliyor	Arif Nihat Asya	National Independence and Atatürk (Free Reading Text)	Cultural Model
8th Grade	Kaldırımlar	Necip Fazıl Kısakürek	Individual and Society	Linguistic Model
8th Grade	Azerbaycan-Türkiye	Bahtiyar Vahapzade	Individual and Society	Cultural Model
8th Grade	Arıyorum	Yusuf Yanç	Individual and Society	Individual Model
8th Grade	Türkiye	Attilâ İlhan	Time and Space	Cultural Model
8th Grade	İstanbul'la Hasbihal	Zeynep Beksaç	Time and Space (Free Reading Text)	Linguistic Model
8th Grade	Vatan Sevgisini İçten Duyanlar	Âşık Veysel Şatıroğlu	Our National Culture	Linguistic Model
8th Grade	Uzun İnce Bir Yoldayım	Âşık Veysel Şatıroğlu	Our National Culture	Individual Model
8th Grade	İstanbul'u Dinliyorum	Orhan Veli Kanık	Our National Culture	Cultural Model
8th Grade	Anadolu'da Bahar	Abdurrahim Karakoç	Nature and Universe	Cultural Model
8th Grade	Yaşamaya Dair	Nazım Hikmet Ran	Citizenship	Individual Model

Of the thirty-one poems analyzed in the current study, fourteen were constructed with the individual model, twelve with the cultural model, and five with the linguistic model:

Table 9. General Outlook

Grade Level	Individual Model	Linguistic Model	Cultural Model	Total
5	4	1	1	6
6	4	1	1	6
7	3	-	4	7
8	3	3	6	12
Total	14	5	12	31

Results and Suggestions

As the main object of language teaching, texts are expected to be qualified, especially in the teaching process. It will be possible for students (individuals) to reach the targeted levels as the subjects of the teaching when they are introduced to quality texts and poems can be regarded as the most quality texts with their aesthetic properties to help students reach these targets. Clarifying the methods with which these texts are constructed will be effective in making teachers "qualified teachers" as practitioners.

The fact that the texts in the database were predominantly constructed with the individual model and cultural model shows that the education process is primarily "student-oriented", which is a situation that the Turkish Language Curriculum (Grades 1-8) also prioritizes. In this context, the texts act in coordination with the curriculum. Students who are introduced to texts that are constructed on the basis of the individual model will be able to improve their "discussion" and "interpretation" skills in the teaching process in accordance with the purpose of constructing these texts. Through such texts, students will leave their passive position in the classical teaching process and remain in an active role in the intellectual and emotional teaching process. Students introduced to the texts constructed with this model will be able to internalize the ability to make a connection between the "experience", "world reality" and "text" and thus to improve their critical thinking skill.

After the individual model, the most dominant model is the cultural model. The cultural model aims to equip students with the basic knowledge and values of their nation. One of the goals of education systems is to train individuals adorned with "national values". In this regard, the finding of the current study indicates that the textbooks used in teaching Turkish are successful in conveying cultural values to students and teaching them the Turkish culture. Students are also introduced to universal cultural values through such texts. However, whether these values are transferred effectively is not an issue to be addressed in the current study.

In the current study, the smallest number of texts was found to be constructed with the linguistic model. As the poems analysed in the current study have objectives beyond teaching the language, this finding seems to be normal. In the linguistic model, the target is not the creative thinking skill, but the acquisition of knowledge about the language of the target text. The linguistic model, which must be found in a textbook in order for students to develop their vocabulary and to acquire the basic grammatical rules of their mother tongue, was found to be sufficiently included in the database.

As a result, the examined textbooks have the capacity to contribute to the accomplishment of the objectives of the curriculum. The low number of text constructed with the linguistic model indicates the absence of the objective of "teaching language" in the existing textbooks.

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Received Date: 19 May 2022 I Accepted Date: 01 June 2022

OPUS Journal of Society Research

RESEARCH ARTICLE

The Effect of the COVID-19 Crisis on the Risk and Return Relationship in the Stock Markets of Emerging Countries

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July 2022

Volume:19

Issue:48

DOI: 10.26466//opusjsr.1118709

Citation: Altan, İ. M. (2022). The effect of the Covid-19 Crisis on the risk and return relationship in the stock markets of emerging countries . *OPUS– Journal of Society Research, 19*(48), 657-663.

Abstract

When the crises experienced throughout history are examined, it is seen that although the crises have common aspects in economic and financial terms, they are not the same. Unlike all previous crises, however, instead of economic and financial considerations, we are faced with the COVID-19 crisis, which is an epidemic disease. Examining the effects of financial crises on financial markets is very important for both investors and countries. Therefore, in the study, the risk-return relationship between the stock markets of India, Brazil, Indonesia, Turkey and South African countries were analyzed with the GARCH-M method in Pre-COVID-19 crisis term and COVID-19 crisis term. As a result of the analysis, it was observed that the response to the COVID-19 crisis occurred mostly in the Turkish stock market, while the reason for the volatility in other stock markets was the previous period. During the COVID-19 crisis, it has been obtained that they provide additional returns to their investors in response to the increased risk in the Indonesian and Turkish stock markets.

Keywords: *Risk, Return, Volatility, COVID-19 Crisis.*

Öz

Tarih boyunca yaşanan krizler incelendiğinde krizlerin ekonomik ve finansal açıdan ortak yönlerinin olmasına rağmen birbirinin aynı olmadığı görülmektedir. Ancak günümüzde diğer bütün krizlerden tamamen farklı olarak, temel sebebi salgın hastalık olan COVID-19 krizi yaşanmaktadır. Finansal krizlerin finansal piyasalara etkilerinin incelenmesi hem yatırımcılar hem de ülkeler açısından oldukça önemlidir. Bu nedenle çalışmada hem cari açık ve enflasyon oranlarının yüksekliğinden hem de dış yatırımlara duydukları ihtiyaçtan dolayı Morgan Stanley tarafından kırılgan ekonomiye sahip ülkeler olarak ilan edilen Hindistan, Brezilya, Endonezya, Türkiye ve Güney Afrika borsaların risk getiri ilişkisi COVID-19 krizi öncesi (Mayıs 2018-Aralık 2019) ve COVID-19 krizi süreci (Ocak 2020-Mayıs 2022) dönemlerinde GARCH-M yöntemi ile analiz edilmiştir. Analiz sonucunda COVID-19 krizine verilen tepki en fazla Türkiye borsasında gerçekleşirken, diğer borsalarda oynaklığın nedeni bir önceki dönem olduğu gözlemlenmiştir. COVID-19 krizi sürecinde Endonezya ve Türkiye borsalarında artan riske karşılık yatırımcılarına ek getiri sağladıkları elde edilmiştir.

Anahtar Kelimeler: *Risk, Getiri, Volatilite, COVID-19 Krizi.*

Introduction

The COVID-19 virus epidemic, which occurred in Wuhan, China on December 31, 2019, became effective all over the world and was declared a pandemic by the World Health Organization-WHO on March 11, 2020. The sudden and large-scale population losses caused by the COVID-19 virus, as well as the disruption of daily life as a result of the measures taken, the disruption of production and activities, have paved the way for the economic crisis by negatively impacting the country's economies and financial markets (Saban and Trabzon, 2021; Duran and Acar, 2020). When the crises in the world are examined, it is seen that although the crises are not exactly the same, they have common aspects in economic and financial terms (Perelman, 2008). However, the current COVID-19 crisis is different from all other crises in history, as the main cause is an epidemic. A virus that threatens human health is the major cause of economic and financial problems in the COVID-19 crisis. The following three factors, according to the IMF, are the causes that separate the COVID-19 crisis from other financial crises (IMF, 2020).

1. The economic and financial shock is greater (because the production losses as a result of the quarantines and restrictions applied in the name of the virus that threatens human life are much more than other global crises).
2. The duration and intensity of the crisis are unknown, similar to a war or political crisis.
3. It is difficult to make regulations to manage the economy during the pandemic.

World stock markets were quickly affected by the COVID-19 crisis. The uncertainty created by both the lack of drugs and vaccines for the COVİD-19 virus for a long time and the rapid spread of the epidemic all over the world led to the formation of strong sales waves in the stock markets, and historical declines were experienced in the world stock markets (Loayza and Pennings, 2020; Şenol, 2020; Göçmen Yağcılar, 2021). Since the beginning of 2020, the financial markets of developed countries such as the United States, Italy and Spain have been heavily damaged (Pandey and Kumari, 2021). The S&P500 and NASDAQ composite indices had the worst day of the century on March 16, 2020, with 12% depreciation (Baek, Mohanty and Glambosky, 2020). The collapse in the US stock markets contagioned Asian and European stock markets. The UK FTSE index depreciated by more than 10% on March 12, while the Japanese stock market depreciated by 20% (Zhang, Hu and Ji, 2020). In Turkey, the BIST-100 index depreciated by approximately 16.75% throughout March. The CBOE-Volatility index (VIX), which fell to 12.10 in January 2020, reached 82.69 after the COVID-19 outbreak was declared as a pandemic. This value is above the maximum level of 80.86 seen during the 2008 global crisis and clearly reveals the reflection of the crisis caused by the COVID-19 pandemic on the financial markets (Şenol, 2020; Göçmen Yağcılar, 2021).

It is undeniable that COVID-19, which is seen as an epidemic, has shocked financial markets. In this direction, it is aimed at examining and evaluating the effect of the COVID-19 crisis on the risk-return relationship in the stock markets of emerging countries. Since the first day of the pandemic, many studies have been conducted based on the financial markets of countries. However, this study is unique in that it reveals the effects of the pandemic on financial markets in the relatively long term.

This research is divided into four sections. In the first section, general information about the COVID-19 crisis and financial performance evaluation are given. The literature on the effects of the COVID-19 crisis was examined in the second section. In the third section, the risk-return relationship between the stock markets of India, Brazil, Indonesia, Turkey and South African countries, which were declared to have fragile economies by Morgan Stanley, before the COVID-19 crisis (May 2018-December 2019) and during the COVID-19 crisis (January 2020-May 2022), was analyzed with the GARCH-M method during the process periods. Finally, in the fourth section, the findings are interpreted.

Literature

The fact that the uncertainty created by the pandemic caused strong sales waves in the stock markets has directed the attention of the researchers to the effects of the COVID-19 virus on the financial markets. For this reason, many studies have been carried out to examine the impact of the COVID-19 crisis on the economy. When the studies in the field of economy and finance are examined, it is seen that the effects of the COVID-19 crisis on monetary policy (Kuzucu, 2022), labor supply, risk premium of countries, production by sectors, consumption demand, government expenditures, tourism and travel, oil prices (Arezki and Nguyen, 2020), supply and demand in trade (Baldwin and Weder di Mauro, 2020), banks bankalar (Yurttadur, 2022; Çoşkun, Öncü, Çömlekçi and Hiçyılmaz, 2022; Çöllü, 2021; Demirel, 2021; Arabacı and Yücel, 2020; Ersoy, Gürbüz and Doğan, 2020; Cecchetti and Schoenholtz, 2020), GDP loss (McKibbin and Fernando, 2020), economic crises (Fetzer, Hensel, Hemle and Roth, 2020) and financial markets (Yıldız, Dağıdır and Altınışık, 2022; Göçmen Yağcılar, 2021; Rahman, Amin and Al Mamun, 2021; Sun, Wu, Zeng and Peng, 2020; Acar, 2020; Şenol, 2020; Heyden and Heyden, 2020; Zeren and Hizarci, 2020; Goodell and Huyn, 2020; Zhang, Hu and Ji, 2020; Keleş, 2020; Kılıç, 2020; Aydın and Gökçe, 2022; Feng, Bao, Wang, Meng, Xia and Zhang, 2020) are examined.

Studies investigating the impact of COVID-19 on financial markets are spreading rapidly in the literature. The effect of the virus in the markets of different countries is analyzed on stock market indices and stock returns using several methods. Eren, Göker and Karaca (2021), who examined the effect of COVID-19 on stock markets, examined the effect of the pandemic on the leading stock market index returns of 22 developed countries by using the event study method. They concluded that the stock markets of developed countries were not efficient in a semi-strong form at the time of the declaration of the global epidemic of COVID-19 and in the period around it. Ölmez and Ekinci (2020) examined the effects of the COVID-19 pandemic on BIST100 using the GARCH method. According to the results of the analysis, they obtained that all sectors (service, industrial, financial, technology) were adversely affected during the epidemic period, according to the sector index returns used in the analysis. In their investigations, Yan, Tu, Stuart and Zhang (2020) found that during epidemic periods, markets reacted quickly to the outbreak and fell in the short term, but then corrected and rose in the long run. They argued that investments made in the travel, entertainment, technology sectors and gold in particular have great return potential.

When looking at the literature as a whole, it's difficult to get a clear picture of the broad framework of the link between COVID-19 and financial markets. The COVID-19 pandemic is expected to have a negative impact on financial markets. Despite this, gains are made in some markets or units. In some studies, it has been concluded that there are sectors that are claimed to be positively affected by COVID-19 (Kılıç, 2020; Aydın and Gökçe, 2022).

Examining the effects of financial crises on national economies is essential for both investors and countries to identify potential opportunities and threats ahead of time. For this reason, it is aimed at examining and evaluating the effect of the COVID-19 crisis, which has more effect and uncertainty than other economic and financial crises, on the risk-return relationship in the stock markets of emerging countries.

Model and Findings

The literature review on the impact of the COVID-19 crisis on the country's economies and financial markets has been presented in the previous sections. In this section, the effect of the COVID-19 crisis on the risk-return relationship in the stock markets of emerging countries is examined. The period of May 2018-May 2022 was taken into account in the analysis and data were divided into two parts as pre-COVID-19 crisis term (May 2018-December 2019) and COVID-19 crisis term (January 2020-May 2022). India, Brazil, Indonesia, Turkey and South African countries, which were declared as fragile economies by Morgan Stanley due to their high current account deficits and inflation rates and their need for foreign investments, were taken into account in the determination of emerging countries. The price series of the stock exchanges of the countries were obtained from the MSCI database in dollars at daily frequency (MSCI, 2022). GARCH in Mean (GARCH-M) model, which was developed by

Engle at al. (1987) and expressed with equations (1)-(2), was used in the analysis.

$$r_t = \nu + \xi\sigma_t^2 + a_t \qquad a_t = \sigma\epsilon_t \tag{1}$$

$$\sigma_t^2 = \omega + \theta a_{t-1}^2 + \beta\sigma_{t-1}^2 \tag{2}$$

In the GARCH-M model, θ represents the magnitude of the response to shocks and β the latency of volatility. The series reacts to crises in direct proportion to the parameter calculated from the equation. The larger the value of the β parameter, the greater the impact of the crises on the series. ν and ξ parameters are constant. ξ is called the risk premium. If ξ is positive, it indicates the existence of a linear relationship between expected return and risk (Glosten, Jagannathan and Runkle, 1993; Hatipoğlu and Uçkun, 2017; Kılıç and Ayrıçay, 2020: Varlık and Varlık, 2017).

When the unit root tests of the countries' time series were evaluated, it was revealed that they were stationary. Table 1 includes descriptive statistics for India, Brazil, Indonesia, Turkey, and South Africa during the pre-COVID-19 crisis term (May 2018-December 2019) and the COVID-19 crisis term (January 2020-May 2022).

Table 1. Descriptive Statistics of Countries Before and During the COVID-19 Crisis*

		Mean	Std. Deviation	Skewness	Kurtosis
Pre-COVID-19 Crisis Term	India	565.86	26.47	-0.52	2.74
	Brazil	2022.45	203.74	-0.56	2.46
	Indonesia	803.87	50.94	-0.54	2.25
	Turkey	244.06	26.51	0.29	3.36
	South Africa	468.20	32.72	0.60	3.02
COVID-19 Crisis Term	India	679.90	139.06	-0.36	1.96
	Brazil	1672.24	269.71	0.30	3.03
	Indonesia	724.89	92.81	-0.53	2.93
	Turkey	195.05	26.98	1.19	3.85
	South Africa	441.04	66.03	-0.75	2.79

**The values are obtained from the daily price series of the stock exchanges of the countries announced in the MSCI database.*

When the descriptive statistics values of the return time series of the stock markets of the countries before the COVID-19 crisis are examined in Table 1, it is seen that the skewness coefficients of India, Brazil and Indonesia have negative values. This means that negative returns are greater than positive returns. The extreme kurtosis observed in the Turkey and South Africa return series (the kurtosis coefficient being greater than 3) indicates that there is a cluster of volatility in the stock markets of these countries.

When the descriptive statistics values of the return time series of the countries' stock markets during the COVID-19 crisis term are examined in Table 1, it is seen that the skewness coefficients of Brazil and South Africa have changed sign. The extreme kurtosis observed in the Brazilian and Turkish return series indicates that there is a cluster of volatility in the stock markets of these countries. The extreme kurtosis in the yield series of South Africa before the COVID-19 crisis draws attention, where it decreased to acceptable values during the COVID-19 crisis.

The GARCH-M model is very important for investors in terms of showing the risk and return relationship. According to the risk-return trade-off principle of finance, the sign of the ξ parameter should be positive, since high return brings high risk along with it. Table 2 shows the GARCH-M Model results for the pre-COVID-19 crisis term and the COVID-19 crisis term.

Table 2. GARCH-M Model Results

		ω	a	β	ξ	Arch(5)	$Q^2(1)$
Pre-COVID-19 Crisis Term	India	1.00**	0.97***	0.85***	0.95	1.00	-0.01
	Brazil	1.01***	0.47***	0.55***	0.72**	1.01	-0.01
	Indonesia	0.98***	0.97***	1.00***	0.96	0.98	-0.01
	Turkey	0.89*	0.99*	1.00*	0.96*	0.89	0.10
	South Africa	0.91**	0.99**	1.01***	0.93	0.91	-0.00
COVID-19 Crisis Term	India	1.00**	0.50***	0.54***	-1.00	1.24	0.99
	Brazil	0.89**	0.65***	0.54***	-0.43	0.89	0.14
	Indonesia	1.00**	0.99***	0.72***	0.98*	1.00	-0.00
	Turkey	0.89***	0.98***	0.80***	0.96**	1.02	-0.03
	South Africa	1.05***	0.98***	0.82***	-0.98	1.05	-0.05

*NOTE: 1%, 5%, and 10% significance levels are indicated by *, **, and ***, respectively.*

When the analysis results of the countries before the COVID-19 crisis are examined in Table 2, it is observed that the return increases as the risk increases in the Brazilian and Turkish stock markets. The risk-return relationship in India, Indonesia and South Africa stock markets was not found statistically significant. While the response to the COVID-19 crisis occurred mostly in the Turkish stock market, the reason for the volatility in other stock markets was the previous period.

When the analysis results of the countries during the COVID-19 crisis in Table 2 are examined, it is seen that only Indonesia and Turkey have a statistically significant risk-return relationship. Therefore, during the COVID-19 crisis period, investors in the stock markets of these countries have become able to earn additional returns against the risk they undertake. It is noteworthy that the stock markets of India, Brazil and South Africa have a negative risk-return relationship during the COVID-19 crisis, although it is not statistically significant.

Conclusion

When the crises in the past are examined, it is known that the crises have common aspects in terms of economic and financial aspects. However, unlike all the crises seen in history, today, instead of economic and financial factors, we are faced with the COVID-19 crisis, which is an epidemic disease. In summary, according to the IMF, the COVID-19 crisis differs from other crises due to the fact that it has intense uncertainty, more severe economic and financial shocks, and that it is difficult to regulate the economy-regulating policies under pandemic conditions.

The COVID-19 crisis swiftly impacted global stock markets. Since the beginning of 2020, the financial markets of developed countries such as the United States, Italy and Spain have been heavily damaged. So much so that the CBOE-Volatility index (VIX), which fell to the level of 12.10 in January 2020, reached the level of 82.69 after the COVID-19 outbreak was declared as a pandemic. This value is higher than the peak of 80.86 during the global financial crisis of 2008, and clearly reveals the reflection of the crisis caused by the COVID-19 pandemic on the financial markets.

In the study, the risk-return relationship between the stock markets of India, Brazil, Indonesia, Turkey and South African countries (which were declared to have fragile economies by Morgan Stanley due to the high current account deficit and inflation rates and their need for foreign investments) were analyzed with the GARCH-M method in Pre-COVID-19 crisis term (May 2018-December 2019) and COVID-19 crisis term (January 2020-May 2022).

When the analysis findings in the Pre-COVID-19 crisis period are examined, it is observed that the return increases as the risk increases in the Brazilian and Turkish stock markets. The risk-return relationship in India, Indonesia and South Africa stock markets was not found statistically significant. While the response to the COVID-19 crisis occurred mostly in the Turkish stock market, the reason for the volatility in other stock markets was the previous period. When the analysis results during the COVID-19 crisis are examined, it is seen that a statistically significant risk-return relationship was obtained only in Indonesia and Turkey. Therefore, during the COVID-19 crisis period, investors in the stock markets of these countries have become able to earn additional returns against the risk they undertake. The significant and positive relationship between risk and return in Turkish stock markets before and during the COVID-19 crisis shows that the risk premium also changes over time in these countries, and that they provide additional returns to their investors in response to increased risk. Since all of these results are based on indices covering all sectors of the country, in order to make a more detailed interpretation of the volatility in the stock markets and to help investors more in portfolio management, it can be examined from which sectors the volatility originates in future studies.

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