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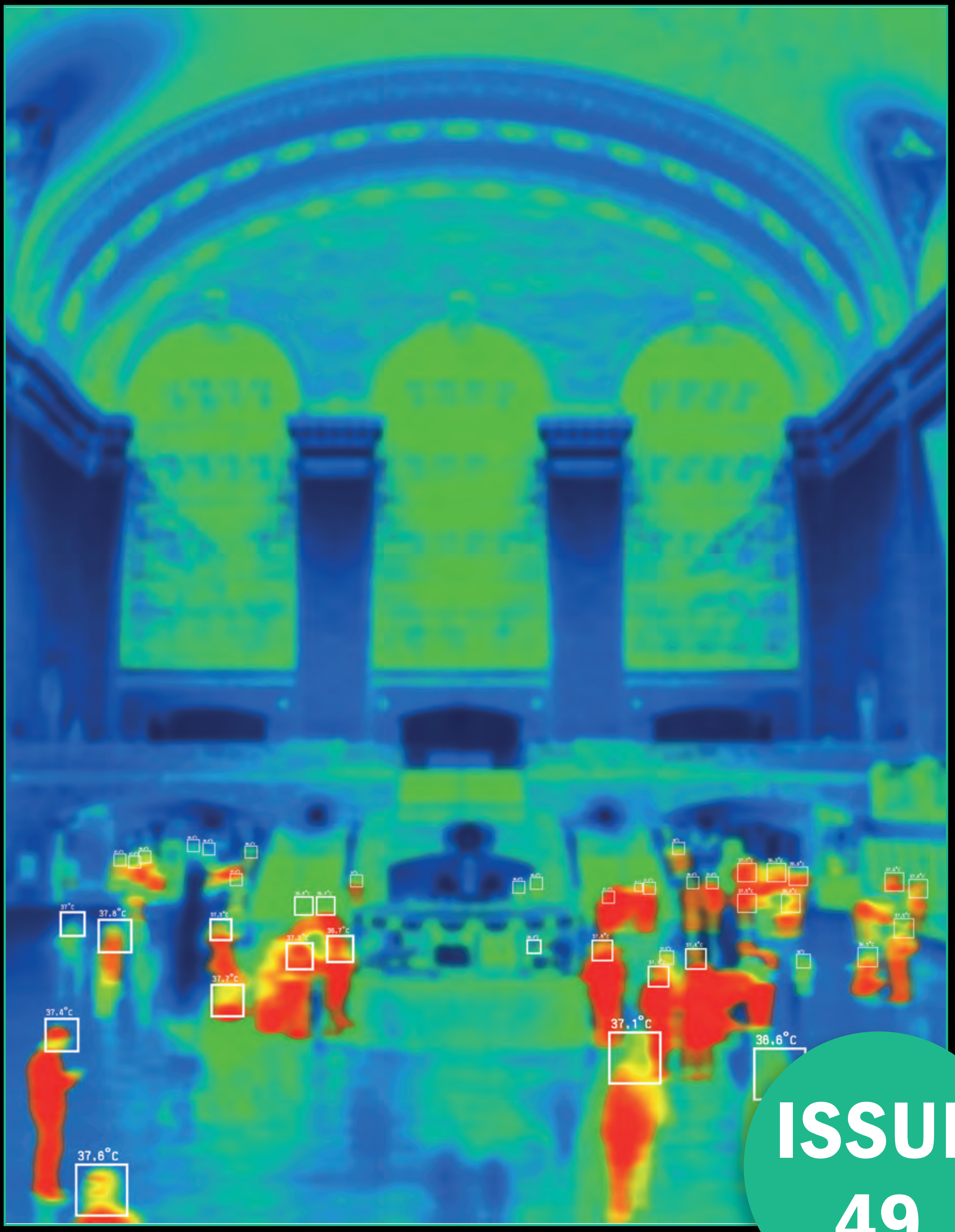

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Editorial

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RESEARCH ARTICLE

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Rising Rap Music Fury on Digital Platforms; What Does the Youth Want to Say?

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Abstract

In this study, it has been examined the relationship between music and society from the point of view of the songs that young people listen to the most and how these songs overlap with the young people's feelings about the society and system they live in. İndividuals, tend to prefer music that is coherent to their emotional state, known as the mood-congruency. Therefore there is a deep connection between the musical styles listened to periodically and social dynamics. In this context, in the Spotify application, which is a digital platform, six rap songs that young people listen to the most were selected and qualitative content analysis method was applied in the study. At the same time, the "System-Based Emotions Scale" questionnaire was applied to the 77 young people studying at the İstanbul Topkapı University Faculty of Fine Arts, Design and Architecture at the undergraduate level, which includes the feelings they may feel towards the system they live in. In this way, the relationship between the political attitudes and feelings of young people and the lyrics they listen to can be looked at more deeply. When we look at the results of the qualitative content analysis and the "System-Based Emotions Scale" questionnaire, the harmony between the two data draws attention. It is revealed that young people, as members of the current system and order, express their feelings, they want to say through Rap music.

Keywords: *Rap Music, Digital Platform, Spotify, Music, Society.*

Öz

Tarihsel süreç içinde yaşanan sosyo-ekonomik ve kültürel gelişim toplumun her alanını olduğu gibi müziği de etkilemiştir. Dönemsel olarak ön plana çıkan müzik türleri dönemin toplumsal yapısı hakkında ciddi bir gösterge olarak kabul edilebilir. Çünkü bireyler kendi duygularını yansıtan müzikleri dinleme eğilimindedirler. Günümüze bakıldığında ise gençlerin dijital platformlar üzerinden dinlemeyi en çok tercih ettikleri müzik türü olarak Rap karşımıza çıkmaktadır. Bu çalışmada, müzik ve toplum ilişkisine, gençlerin en çok dinlediği şarkılar ve bu şarkıların gençlerin yaşadıkları topluma ve sisteme dair hissiyatlarıyla ne kadar örtüştüğü noktasından bakılmaya çalışılmıştır. Çalışma da bu kapsamda dijital bir platform olan Spotify uygulamasında gençlerin en çok dinlediği altı adet rap şarkısı seçilerek, nitel içerik analizi yöntemi uygulanmıştır. Aynı zamanda, çalışmanın örneklemini oluşturan, İstanbul Topkapı Üniversitesi Güzel Sanatlar Tasarım ve Mimarlık Fakültesinde lisans seviyesinde eğitim alan 77 gence içinde yaşadıkları sisteme karşı hissedebilecekleri duyguları içeren "Sistem Temelli Duygular" ölçeği uygulanarak siyasal tutum ve hissiyatları ile dinledikleri şarkı sözleri arasındaki ilişkiye daha derinlemesine bakabilmek amaçlanmıştır. Nitel içerik analizi ve "Sistem Temelli Duygular Ölçeği" anketi sonuçlarına bakıldığında iki veri arasındaki uyum dikkat çekmektedir. Bu uyum açıkça göstermektedir ki, gençler, mevcut sistem ve düzenin bir ferdi olarak hislerini ve dile getirmek istedikleri duygularını, Rap müzik üzerinden dışa vurmaktadır.

Anahtar Kelimeler: *Rap Müzik, Dijital Platform, Spotify, Müzik, Toplum.*

Introduction

The socio-economic and cultural development experienced in the historical process has affected music as well as every aspect of society. Sometimes, music can also emerge as an expression of social messages in a society. It can represent the symbol of a culture or the way of life of a group. As Oskay (1995, p.45-47) states, music is a discourse, a means of communication. Therefore, the desired and felt emotions and thoughts can be conveyed through music. In this context, music can sometimes become a tool of orientation and create a consciousness, or sometimes social conditions can be hidden through music and cause a false consciousness. For this reason, the musical genres that come to the fore periodically can be considered as a serious indicator about the social structure of the period.

Today, Rap is the type of music that young people prefer to listen on digital platforms which provide users to freedom of choice. One of the sectors most affected by the digitalization process has been the music industry. With the development of digital technologies, musical works have become completely digital. Therefore, traditional music listening habits have changed radically. The consumption of music has begun to differentiate and the consumption of music from digital media has become widespread. The listener has become easily accessible and able to listen to music in any environment (Uraz, 2019, 33). Today, the most common of these platforms is Spotify application. Spotify was founded in Stockholm, Sweden, in 2008 by Daniel Ek and Martin Lorentzon, and was first broadcast in 2008. The application, which offers opportunities such as listening to music online and offline, creating playlists, has outstripped many of its competitors over time. Spotify started to serve in Turkey in 2013 (Ergün, 2016, p.117).

According to the 2018 Global Music Report of IFPI, which is known for its research on the music industry, there is a growth in the music industry with digital technologies. Particularly, paid subscribers in online music platforms such as Spotify and Apple Music contributed a lot to this growth (Kesayak, 2019). As Tanyol (2002, p.204) points out, the anarchist or chaotic nature of the internet attracts the attention of young people in particular. Against the sanction of any oppressive power, young people use the internet to express their aspirations and demands for change. In many parts of the world, subcultural groups share music over internet. These platforms have made it easier to produce and consume music. As Cook (1999, p.9) stated: “People think with music, decide who they are and tell about themselves.

In this study, it has been tried to look at the relationship between music and society from the point of view of the songs that young people listen to the most and how these songs overlap with the young people's feelings about the society and system they live in. In this context, in the Spotify application, which is a digital platform, the works of rap singers that young people listen to the most were selected, and the content analysis method was applied. In addition, it is aimed to look more deeply into the relationship between their political attitudes and feelings and the lyrics they listen to by applying the "System-Based Emotions Scale" Questionnaire, which includes the feelings they may feel towards the system they live in. İn this context, the sample of the research was determined as Istanbul Ayvansaray University Fine Arts Design and Architecture Faculty undergraduate students due to easy accessibility.

As a result of the literature review, it has been observed that many studies have been made on the sociology of music. For example, Günay's "Sociology of Music: A View from Sociology to Music Culture" published in 2006, Lüküslü's (2011) "Hip-hop as a Transnational Youth Culture and a Request for Respect from the Society" and Erdal & Ok's (2012) "Music The Role of Beliefs in Preferences" are very valuable studies for the field. However, no bilateral research has been found that measures the feelings towards the system with the "System-Based Emotions Scale" questionnaire, as well as revealing the emotions in the lyrics of the songs with the content analysis method and investigating the link between them. At the same time, this study, which discusses the relationship between music and social identity through Rap music, is important in terms of revealing how the youth try to express themselves through music regarding the economic and social experiences in daily life.

To form a basis for the analysis part of the study, it is useful to briefly touch on the relationship between music and society, the course of rap music in Turkey and the relationship between emotions and music preferences.

Music-Society Relationship: Rap Music

Music can be accepted as a tool that is formed by a certain cultural accumulation. Thus, it represents the consciousness of the society by reflecting the interaction between the society, individually and culturaly. Music isn't just something that's good to listen to. On the contrary, it is deeply related to the existing culture and embedded in the culture (Cook, 1999, 9). Music and culture interact continuously; sometimes culture shapes the music, but music also can create the culture (Erol, 2009, 102). Many interdisciplinary researches carried out in fields such as anthropology, sociology, psychology and musicology provide important data about the versatile place of music in human life. Music has a wide spectrum ranging from sports to religion due to its association with many important points of socio-cultural life and its social effects (Erdal and Ok, 2012, p.60).

By thinking about the social meanings of music, we can move music to a deeper level than a pure aesthetic perception (Ergur, 2009, 10). Music is a social phenomenon, as it is shaped by the culture of individuals as well as being individual. In the historical process, every event that affects society such as wars, prohibitions, rules and welfare abundance has also deeply affected the music (Günay, 2006, p.21).

Therefore, to be able to interpret the meanings of the music, as Finkelstein (1996, p.11) states, it is necessary to consider the differences between working class and capital owners in terms of fractions in the type of music that is served for related social classes. A contrary evaluation process which ignores the music preference and social class will detaches from the context of real life, so meaning will be incomplete.

According to Adorno (2003), one of the important names who thought about music, music sociology is not concerned with the work of a single composer, but with the effect of music on the whole society. Because the main thing is the function of music created on the whole society, not on the consciousness of a single person. In this context, the sociology of music is always a social criticism rather than an artistic field. Van Dijk (1998) also defines musical texts as texts that carry the reflexes of daily thought and enable the analysis of ordinary ideology. From this point of view, it is useful to look at the course of rap music, which will be examined in the study. The word Rap, which is widely believed to be an abbreviation of the words “Rhytm And Poem” (Rhythm and Poem), actually means “heavy criticism” as an English dictionary meaning (Angı, 2013, p.68). Rap music (Greve, 2006), which emerged in the 1970s and reflects the rebelliousness of African-Americans exposed to discrimination by whites (Gilroy, 1987; Neal 2004) and is identified with them started to attract attention rapidly in the 80s with the developments of technology, globalization, cultural imperialism although its influence was not felt much in the first years. As rap music began to spread to more segments, different styles and certain branches began to emerge (Öztürk, 2012). Thus, especially black people have had the opportunity to tell first-hand the contradictions and difficulties they face in daily life through this new music and culture they have created (Jöntürk, 2003, p.14). Rap music has been used as a tool in expressing themselves and conveying their recognition and demands (Aytulum, 2019, p.219). Rap music, in the 1980s, helped black people in New York to emphasize their presence and strengthen their identities (Hebdige, 2003, p.188; Rose, 1994).

When we look at Turkey specifically, the first examples of Turkish rap music began to be seen in the 1990s. The first emergence of rap music took place with expatriates living in Germany. Hip-hop, which rose as a reaction to the racist movements directed against black people in America. Hip-hop was also used as a tool against racism by the Turkish youth living in Germany. When it was transferred to Turkey, it came into existence as a tool for the young people living in Turkey to express their discomfort. Since its emergence, it has been accepted as a tool for freedom of expression, unity, peace and opposing social injustice (Jackson and Anderson, 2009, p.22). A few artists who came together in 1987 formed the Cartel group, and they made the first rap frenzy in Turkey in 1991 (Genç, 2015, p.845). After the success of Cartel, young people in Turkey started to listen to and produce rap music. Rap emerged as a subculture for the first time in Turkey, especially in cities such as Istanbul, Izmir, Ankara, Eskisehir and Adana. Today, Germany is widely regarded as the homeland of Turkish rap. The influence of German-Turkish rappers is still available today. Turkish rappers often go to Berlin to collaborate with German-based artists to make their albums and get technical support. According to Lüküslü (2011), the hip hop community is a transnational community. Nowadays, it is observed that there are quite a lot of rap artists. According to Spotify's 2021 list, rap music takes up a lot of space among the most listened to on digital platforms. From digital platforms to TV series and movie soundtracks, Rap music is very popular, especially among young people. According to Adorno, every musical genre bears the traces of contradictions and tensions that exist in the society as a whole (Stokes, 2016, p.21). For this reason, rap music should be read in relation to the whole of society in terms of both its production and consumption. As Frith (1996, p.109) says, “The issue is not how a particular piece of music reflects people, but how it produces them, how it creates and constructs an experience”. Therefore, the consumption of rap music by a growing audience in Turkey shows that rap songs contain values that are not only embraced by the producers but also by the listeners.

By observing music in action, DeNora (2000) reveals that actors transform into aesthetic agents. DeNora, which aims at a sociology of emotion based on the idea of observing music in action in society, examines what actors do with music rather than revealing the meaning of the music-society relationship. Providing examples of how emotions are regulated through music, DeNora shows that listeners consciously choose the type of music they need. The feelings that an individual feels with his daily music experience are an important data in the subject's relationship with music. With digitized music, and unlimited music archive and digital platforms that provide the opportunity to find music specific to every emotion at any time, change the individual music experience. Spotify is one of the most well-known digital music apps. On Spotify; There are music lists that can be listened to while showering, eating, studying or doing sports (Demir, 2022, p.165).

Music has become a part of every aspect of daily life. Everyday life is a collection of practices that are ordinary and seem insignificant, but that we repeat almost every day. Actions that everyone seems to be doing every day, such as going to work, cooking, listening to music on the bus, constitute daily life practices (Lefebvre, 2016, p.32). The fact that music has become portable has increased the interaction of emotions and memories with music in different places. As DeNora (2003) states, music; It is one of the founding elements of social life.

Effects of emotions on music preference

The presentation of music has evolved rapidly with the adoption of new technological developments, which presents music as an everyday choice that we paid for (Krause&North, 2015). Tepper and Hargittai indicated that especially younger generations like college students mostly pioneered the adoption process of these new technologies in the music industry (2009). Recent research has found that teenagers are more likely to access music via digital platforms rather than via radio or CD (Smith, 2012). Thus, music listeners are active customers - with the power of freedom of choice- rather than being only passive listeners (Krause&North, 2015).

At this point, the emotional states of the individuals that determine music preferences becomes as important as the influence of a given music on individuals, because in this case affect comes first than the music preference is occured. From the existing literature, it is known that; individuals tend to prefer music that is coherent to their emotional state, known as the mood-congruency (Hunter, Schellenberg& Griffith, 2011). Also, the research study of Hunter, Schellenberg and Griffith on m illustrated that mood-congruency is especially apperent for negative emotions (2011). Research findings on the relationship between music and emotion can be explanatory to understand why negative emotions can be influential on music preferences. For example, Saarikallio an Erkkilä indicated that music is a useful tool for mood regulation (2007). Another study illustrated that current mood of listeners is effective on music preferences because their results showed that listeners prefer to choose music that is compatible with their mood with the aim of regulate their emotions by expressing them (Cantor & Zillmann, 1973).

Also, music can be a facilitator in coping with crisis or relieving the stress (Tarrant, North, & Hargreaves, 2000) in both individual and collectivistic level as it presents a map to examine the contruction and expression of social identity and provide a sense of a shared destiny (Tekman & Hortaçsu, 2002). This representation of the identity can consolidate individuals who share similar social identities such as being opponent, disadvantaged, alienated etc., so it can provide a sense of validation (Merriam, 1964).

Self-regulation is defined as the most essential interpersonal use of music through music preference, and consolidation and representation of an identity is the most critical social use of music (Boer&Fischer, 2011). Thus, as the existing literature indicates the importance of the relationship between music and especially negative emotions, in the current study it was expected to find congruency between the system based emotions of the participants and mostly represented emotions in the preferred songs relatedly to the system.

Methodology

With this study, the relationship between the rising rap music trend among the young people living in Turkey and the social factors will be examined and it will be tried to reveal whether there is a connection between the feelings of the young people towards the existing system in Turkey and the Rap music they listen to. In this direction, the research questions determined within the scope of the study are as follows:

1. As a member of the current order and system in Turkey, what feelings do the youth feel towards the system?
2. Is there a relationship between the feelings they feel towards the current order and system and the Rap Music lyrics they listen to? If yes, which emotions are prominent?
3. What are the prominent emotions of the young people who listen to rap music and their feelings towards the current order?

In order to obtain more comprehensive and consistent data in line with the purpose of the research, two different methods were used to collect data. The lyrics of the selected Rap songs were analyzed using the qualitative content analysis method. At the same time, the "System-Based Emotions Scale" (Solak, 2015) was used to measure the system-based emotions of youth, who are individuals of order and lifestyle in Turkey. The "System-Based Emotions Scale" includes eighteen feelings that can be felt towards the system.

As a result of the two methods used, it has become possible to look more closely at the connection between the rap songs that young people listen to and their feelings about the system they live in.

Sample of the Research

The population of the research was determined as young people, since the audience that listens to the Rap Music style the most is the young people between the ages of 18-25. For this reason, the questionnaire applied within the scope of the study was limited to undergraduate students studying at the Faculty of Fine Arts, Design and Architecture of Istanbul Topkapı University. 77 undergraduate student parciticapated to study.

At the same time, Turkish Rap Music, which is the subject of the research, was determined as the universe of the research, and as a sample, the six most listened local Rap Songs on Spotify. Spotify app lists the most listened local Rap songs. The number of songs to be analyzed with qualitative content analysis is limited to four songs in total, two for each of the two rap singers that young people listen to the most in 2021 on Spotify.

The most streamed rap singers on Spotify in 2021; Ezel and Uzi. In this direction, the songs of “Mayring”, “Allahından Bul” and “Sakatat” from Ezel, “Makina”, “Kervan” and “Paparazi” from Uzi were determined as samples.

Findings

Qualitative Content Analysis Findings

Content analysis allows all kinds of verbal and written data to be categorized by measuring certain variables or concepts (Arık, 1992, p.119). Each other similar data are brought together within the framework of certain themes and categories and presented to the reader in order (Yıldırım & Şimşek, 2013, p.259). In this direction, four songs selected within the scope of the study were analyzed by categorizing with the content analysis method. Since the aim is to identify and reveal the truth behind the data, content analysis is used in the study.

When Ezel's songs "Mayring", “Allahından Bul” and "Sakatat", and Uzi's "Paparazi", “Kervan” and "Makina" are analyzed, three common themes emerge. These themes were determined as: "*Disappointment and hopelessness, Anger and rebellion against the existing order, Violence and the feeling of being blocked*". Emerging themes are presented under separate headings.

Disappointment and Hopelessness

Table 1. Desperate lyrics in the analyzed songs.

MMayring	-Do you realize how hard it is to even imagine in these places, my dear? -Still, I would, of course I would, living in hand, living in dreams always -The past is dark, our future is blurred
Sakatat	-Don't go to the slaughterhouse, life is plain, life is shabby, tied on a leash - The right of the people is the right of speech, or everyone who will perish is pure and pure
Paparazzi	- We'll be lying if we go fast - Shall we make a little decision now? - I'm sorry, from the past, my fate is entrusted to God - I can't get rid of rap, I can't lift my head from drinking - I fell into my neighborhood from a height When I said I was saved, I sank deeper and deeper
Makina	- There is no life to live for us - We burned all of them, the liver couldn't stand it - How would you feel if I go underground, there is no such option, but they all want it
Allahından Bul	- People are evil indeed -They see us evil -Even whatever you do -You can't please them all -Though I cursed so much but...
Kervan	Is it possible to live with this much trouble? -Our house is rent, we only can afford this

Hopelessness is defined as a negative expectation about the future, in other words, pessimism (Kashani, Stoyls, Dandoy, Vaidya, & Reid, 1991). The individual's negative perceptions of his own future and the world are seen as the most important factor that leads to the emergence of hopelessness. As can be seen in detail in Figure 1, there is a negative expectation about the present and the future in the lyrics of the songs examined.

As Morselli (2017, p.317) said, the phenomenon of hopelessness also refers to the disappearance of the individual's expectations for the realization of future plans or feelings such as goal setting. This point is mentioned in Ezel's songs; The words “*How hard it is to even imagine in these places” and “The past is dark, our future is blurry”* are examples of the emphasis on the current situation and the difficulty of making positive plans for the future. Likewise, in Uzi's songs, hopelessness about the future is also mentioned with the words *"I regret that my fate is entrusted to God" and "When I said I was saved, I sank to the bottom"*.

Hopelessness reflects the general mood that the physical, mental or social situation of the person will not improve (Çınar and Karcıoğlu, 2012, p.285). The lyrics examined are; *"Still, I would like to, of course, to live hand in hand, to live always in dreams", "How do you feel if I go underground, there is no such option, but they all want it", "Life is plain, life is squalid", "We burned all of them, liver could not stand it", "We will lie if we go fast", "There is no life to live for us"* With these words, it is pointed out that living in good conditions can only be in dreams, and the worthlessness and evil of the life(s) lived.

Anger And Rebellion Against The Existing Order

Table 2. The lyrics containing anger and rebellion against the existing order in the songs examined.

Mayring	-Every part is right when it's wrong, everybody cuts someone with the ghost of the past -Ezel live broadcast from Germany, winter comes, the streets are in the snowy beech forest, I haven't visited my country for even seven months. Enough! - Mayring why did we stay like this apart - Why is it always watered with blood instead of rain? Nobody wants to say, let's find a "middle way", bombs always fall on the innocent.
Sakatat	-Your tough policy, dozens of blood and lies, I can't stand it - Sleepiness, my sleep is a mess, your kidneys are glass, tongues cramp - Know who you are dancing with; lambs and wolves, snakes rant -You are on the menu and à la carte, fighting and making money is a must -Burning life is not coal so sell it to me, the sidewalks you step on are a catafalk
Paparazzi	-I gave this music from tooth to toe, pocket money, pocket money until the return of my labor dies -Did you think we ran away? I ran I won I believed many times and I was very low -I'm stuck in the void, help me God, this is an epidemic and I've realized it's the end of my road
Makina	-Let's pay him and don't talk, that's enough. -Even if you've had disappointments, you're the machine. -Every day they wish and empty bones will rain, even if your prayer is accepted -It was lived before, the shadows destroyed our clouds, we were not afraid of death -Even if the whole world comes upon you, you are the machine -No Gucci, Chanel is just a dream, I'm falling like a star, my friends count
Allahından Bul	-God give you what you deserve -Before I get to you -Lynch me as much as you like -You can't crush me into pieces -I got wrong, all right I'm wrong -Are all them stupid? -Ugh my brains float out
Kervan	--The wheel could gonna turn any moment -I am reluctant when there is no struggle

As Davis (2005, p.123-124) points out, protest songs can be seen as an attempt to break the dominant hegemony of the state and to challenge the control of language policies and the discursive divide. In this sense, music is a form of struggle beyond symbolic power. The sentences we see in Figure 2 are examples of this. For example: "Your tough policy, dozens of blood and lies, I can't stand it", " God give you what you deserve, Before I get to you", "Nobody wants to say, let's find a "middle way", bombs always fall on the innocent"…

A rebellion and anger against the prevailing systems and policies draw attention with words such as *"Let's give and don't talk, that's enough", " No Gucci, Chanel is just a dream, I will fall, my friends count like stars", "Even if the whole world comes down on you, you are the machine .*

Hershey (2007, p.4) stated that the musical forms that stand against the existing system will not be defined as just noise, and that these noises should be read as the language of individuals who have been exposed to any social problem or are under pressure. In the end, it can be stated that a group or an individual marginalized in the society with rap music describes the life style that is alien to that society (Richardson and Scott, 2002, p.175-176).

Violence and The Feeling of Being Blocked

Table 3. Lyrics containing violence and blocked feelings in the analyzed songs.

Mayring	-Mayring, why did we stay like this, apart? -All societies that say "life" need blood -For rant they pass the tank by the throat -It's like hell, dude. -All parties pump racism -I wish we could communicate once without fear, I wish we could make love without war
Sakatat	-Your flesh is somewhere, who has the bone, the tripe I saw from these cannibals -They will be fed with blood, one drop is not enough -Destroying is a glorious action in the world -They want death, they want oppression, "why are we ready to keep alive?" says -Cataracts in lidless eyes, a ladder made from skulls -Damn this brutal pornography, living in this land is a craft
Paparazzi	- Unfortunately, there is no one left to this blood. -My hands were shaking, I didn't come out of the coma, the voice inside me said give it up
Makina	-Make it broken if money is plentiful, there is not even a single dream to reach -He put it on my waist, not mine brothers, you pull the trigger, my bullets will take care of the rest -Parties and hotels were hawks, now Mercedes is closer to the ground Believe me, I'm burning a quarter of my thought, this city was after me -You'll get what you want two bullets or diss

	-Travel through their fake existence; crush all the ones
AllahındanBul	-Look I'm out and free, but the minds imprisoned -Can't care about y'all, I lite cannabis -My weapon is music so I ain't no terrorist -I was glass-like they broke me
Kervan	-Maybe my mom would be proud of me if I succeed - A gun and a mask are enough to solve my thing -I'm 23 now, cartel caught me off

The sentences in Figure 3 reflect the feeling of violence and frustration against the existing order. It is clearly seen in the songs examined that the feeling of violence and inhibition is not expressed only with the use of money or drugs. Emphasis is placed on the helplessness of having to live in the current system and the violence created by the system. The following lyrics in the songs support this: “I wish we could communicate once without fear, I wish we could make love without war”, *“They want death, they want cruelty”, “Damn this brutal pornography, living in this land is a craft”, “ Make it broken if money is plentiful, there is not even a single dream to reach”*, “A gun and a mask are enough to solve my thing, “I was glass-like they broke me”. With these words, the feeling of being hindered as a member of the existing order comes to the fore.

In the words that contain the feeling of being blocked, there is both an acceptance and a resistance against the injustices in the system. As Özbek (2012, p.92) states, rap music can be seen as a popular culture where resistance and acceptance, rebellion and submission of the people find their ideological expression.

"System-Based Emotions Scale" Survey Findings

The system-based emotions scale was developed by Solak (2015) in his study titled “The role of emotions and emotion regulation in the system realization process”[1]. According to Solak et al. (2012) reconsidered emotion studies in the existing literature from a systems perspective and defined emotions at the system level. In this study, emotions were reconsidered at the system level and it was shown that emotions are affected by the social position of the person and reflect the ideologies in the society.

Before using the system-based emotions scale, permission was obtained from Solak, who developed the scale. At the same time, before collecting the data from participants, approval was obtained from the university's ethics committee. The data is collected in 2021.

“As an individual living in Turkey's order and system, please indicate how much you feel the following emotions by writing a number between 1 (Not at all) and 7 (Very much) next to each statement. How do you feel in general because you are a member of the current order and system in Turkey?” In the light of the questions, the answers given by the participants to the System-Based Emotions Scale are given as percentages.

Participation in the survey was carried out online through Google forms and a total of seventy-seven people participated. Results are available at Google Drive via link that can be available in notes[2].

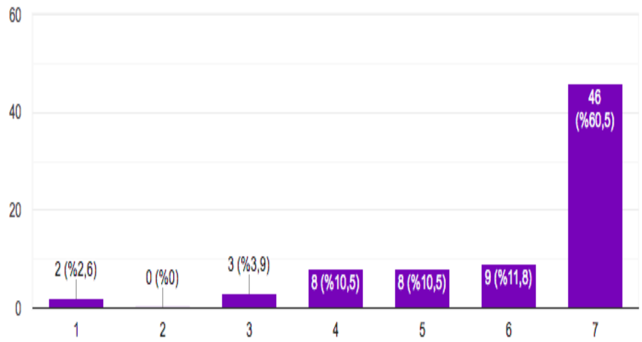

Figure 1. “As a member of Turkey's system and order, I feel angry with Turkey's system and order.

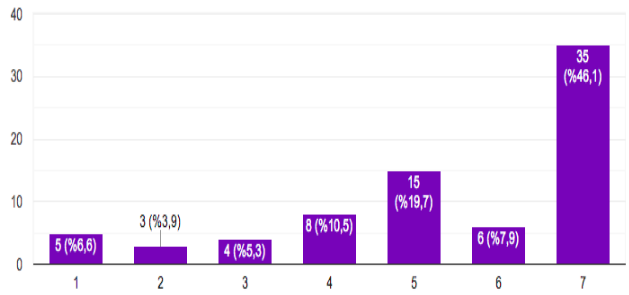

Figure 2. As a member of Turkey's system and order, I feel a sense of rebellion.

[1] *For more detailed information about the system-based emotions scale, you can view Solak's work here: https://etd.lib.metu.edu.tr/upload/12618678/index.pdf*

[2] *Google Drive Link:*

https://docs.google.com/forms/d/1xrMzwlZ7Daliqt1YpgRJPQ-OjSMt5aFJWLnEwdoDtkU/edit#responses.

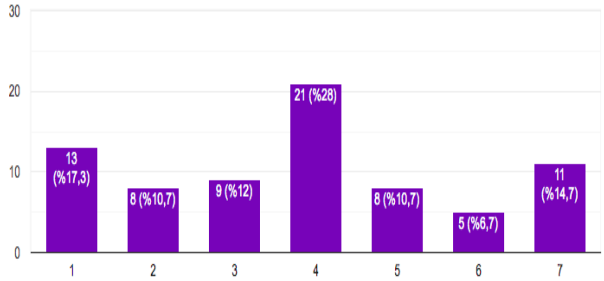

Figure 3. As a member of Turkey's system and order, I feel angry against the system and order of other countries.

As seen in the first table, 60.5% of the participants feel angry with the system. 46.1% also stated that they felt a sense of rebellion against the existing system (Figure 1 and Figure 2). The rate of those who feel anger against the system and order of other countries is 14.7% (Figure 3).

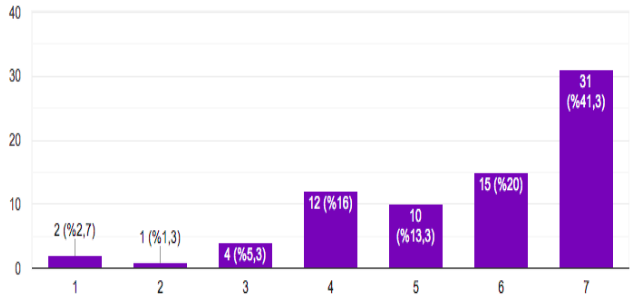

Figure 4. As a member of Turkey's system and order, I feel disturbed.

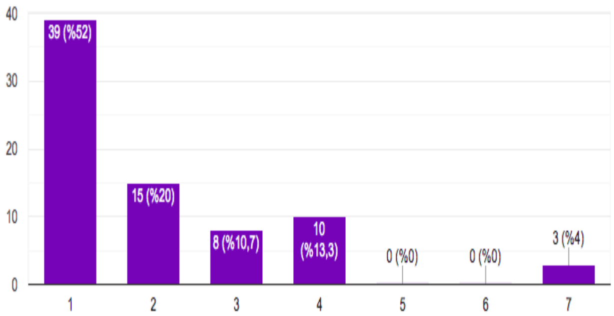

Figure 5. As a member of Turkey's system and order, I feel satisfaction.

While 41.3% of the participants feel uncomfortable with being a member of the current order, only 4% of the participants feel satisfied as a member of the current order (Figure 4 and Figure 5).

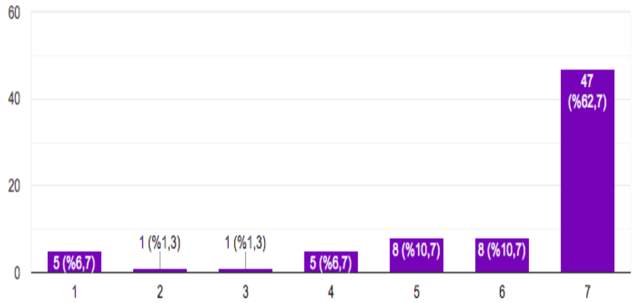

Figure 6. As a member of Turkey's system and order, I feel disappointed.

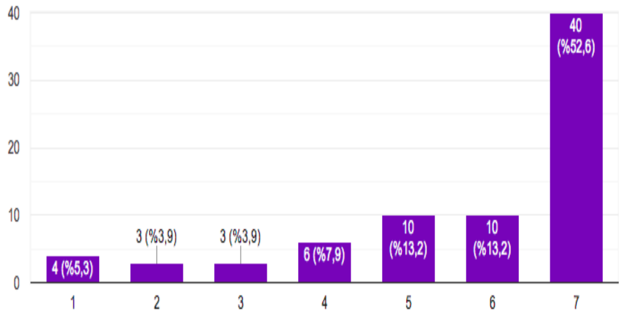

Figure 7. As a member of Turkey's system and order, I feel fear.

While 62.7% feel disappointed with the current order, the rate of those who feel fear while living in the current order is 52.6% (Figure 6 and Figure 7).

While 39.7% of them are ashamed of being a member of the current system, the rate of those who are proud is 5.3% (Figure 8 and Figure 10).

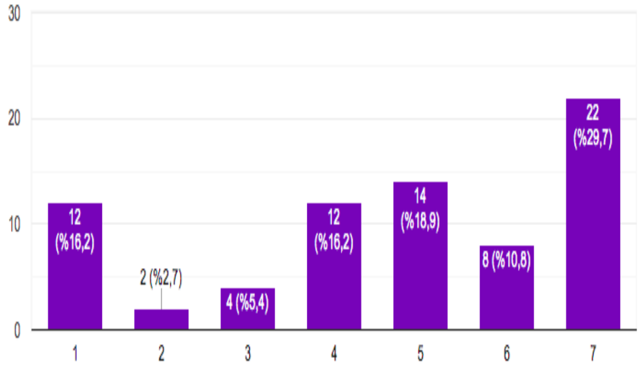

Figure 8. As a member of Turkey's system and order, I feel shame.

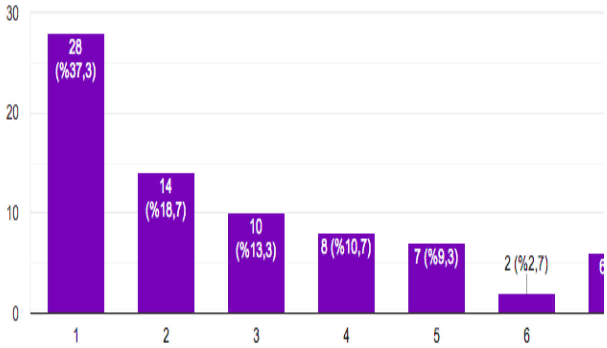

Figure 9. As a member of Turkey's system and order, I feel hopeful.

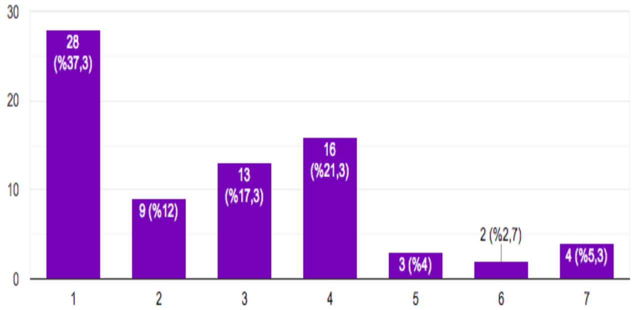

Figure 10. As a member of Turkey's system and order, I feel proud.

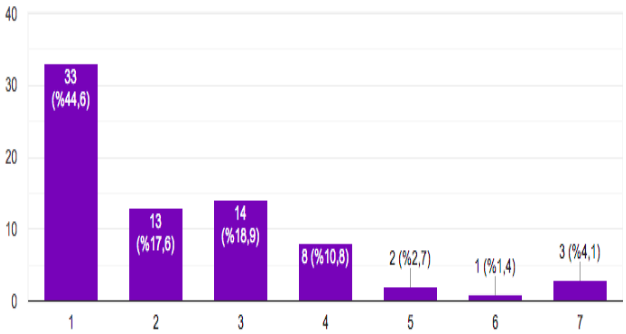

Figure 11. As a member of Turkey's system and order, I feel happy.

While the rate of feeling happy in the current order is 4%, the rate of blaming themselves for the current order is 2.7% (Figure 11 and Figure 12). and only 8% feel hopeful for the future (Figure 9).

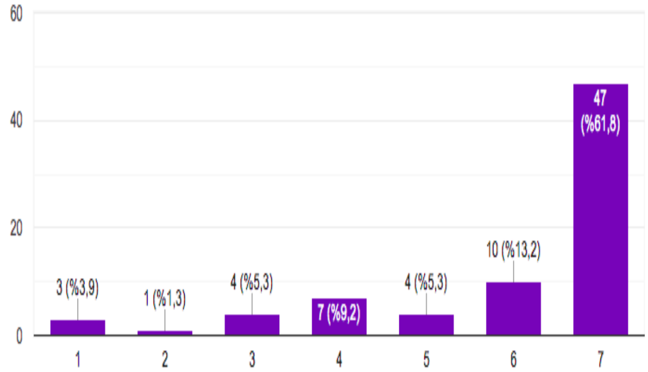

Figure 13. As a member of Turkey's system and order, I feel uneasy.

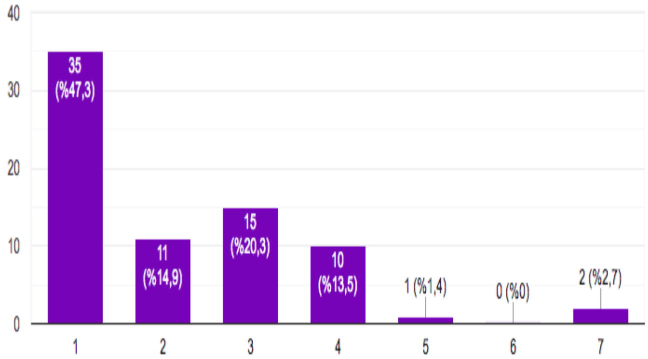

Figure 14. As a member of Turkey's system and order, I feel joyful.

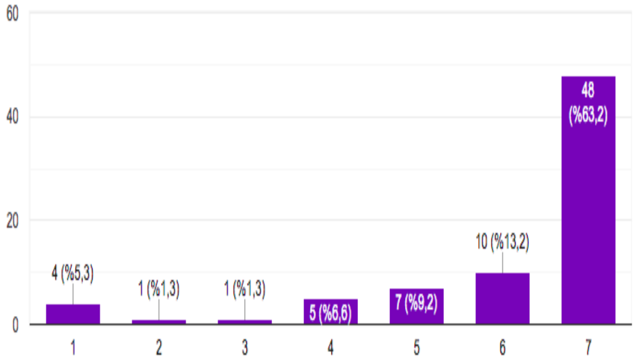

Figure 15. As a member of Turkey's system and order, I feel blocked

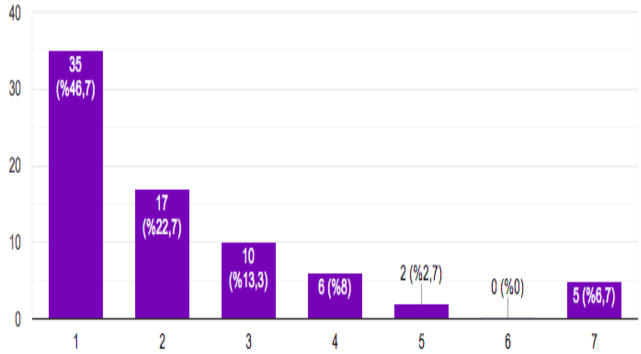

Figure 16. As a member of Turkey's system and order, I feel excited.

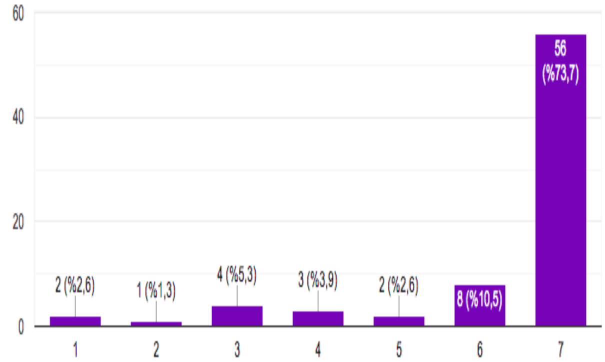

Figure 17. As a member of the system and order in Turkey, I feel anxious.

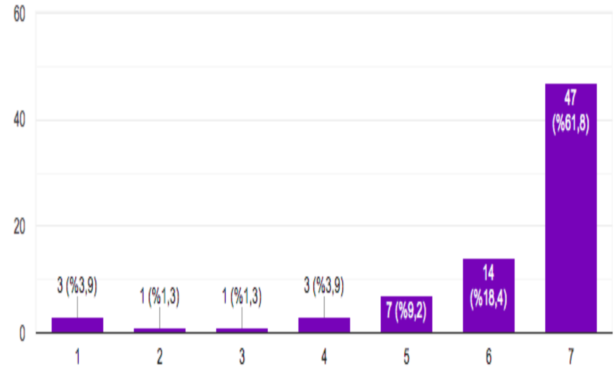

Figure 18. As a member of Turkey's system and order, I feel sad.

The rate of those who feel anxious about living in the current system is 73.7%, the rate of those who experience a sense of frustration is 63.2% and those who feel uneasy are also 61.8%. Last but not least, while the rate of those who feel joyful is, 2.7%, the rate of those who feel sad is 61.8%. (Figure 13,14, 15,17,18).

Discussion and Conclusion

When we look at the data of the content analysis and the System-Based Emotions Scale Questionnaire, it is seen that the data overlap with each other. The most recurring themes in the analyzed lyrics overlapped with the answers given by the participants to the scale questions. The majority of the young people who participated in the study stated that they had intense feelings of disappointment and hopelessness against the existing system, as in the prominent themes in the songs. While 63.7% of the participants feel disappointed as a member of the system and order in Turkey, 37.3% feel hopeless. Lyrics in the songs examined often include feelings of hopelessness about the coming days and the material and moral disappointments experienced in the current order.

One of the most recurring themes in the songs reviewed is hopelessness and disappointment. The feeling of hopelessness caused pessimism to come to the fore in the lyrics. Only 2.7% of the youth who participated in the song "System-Based Emotions Scale" survey feel cheerful. In line with this ratio, both hopelessness and anxiety about the future were frequently expressed in the lyrics of the song, with words such as "*If it goes like this, we're done, there will be no life for us*".

Another theme that emerged from the content analysis is the feeling of anger and rebellion. In the analyzed lyrics, there are often words expressing the feeling of rebellion against the existing system. Likewise, 60.5% of the young people who participated in the survey stated their anger towards the system and order as 7 (Too much). On the other hand, 46.1% defined the feelings of rebellion as 7 (Too much). In addition to the feeling of rebelling against the system, 29.7% of them marked 7 (too much) and stated that they were ashamed of being a part of the system. And only 5.3% of the participants feel proud as a member of the current system.

The last theme, in which the content analysis and the System-Based Emotions Scale overlapped, is the feeling of "Dissatisfaction and Frustration". Dissatisfaction with the existing order and a sense of frustration that the system restricts them and destroys their hope come to the fore in the lyrics.

In songs, Frustrated feelings are expressed with words such as "*I wish we could communicate once without fear, I wish we could make love once without fighting*". In this direction, the answers given by the participants to the survey questions are compatible with the lyrics. 41.3% of the participants feel very uncomfortable (7) as a member of the system, while 61.8% feel uneasy.

63.2% of the participants, on the other hand, feel very much inhibited (7). Another striking factor in this context is that, in addition to the feeling of being blocked 52.6% of the participants (7) fear too much as a member of the existing system and order. The feeling of limitation is combined with fear. 73% of the participants feel anxious. The rate of those who feel satisfied in the current order is seen as only 4%.

Music is a phenomenon that exists in every moment of individuals' lives. Especially with applications such as Spotify that have emerged in recent years, it has become much easier to be both a producer and a consumer of music. In the light of the findings obtained in the study, it is clearly seen that it is not possible to isolate music from society, general feelings in society, and socio-political, economic developments and transformations.

When we look at music from a closer perspective, it becomes clear how closely it is related to all social feelings. Rap music stands out as one of the most ideal ways to make their voices heard for marginalized and oppressed minorities or communities. The practical field in which rap music operates is shaped by the ability of individuals who produce and consume this music to reveal their economic, social and political problems. As Bennett (1999, p.77) points out, Rap music has local roots that help shape the content of the lyrics. Unlike other genres, rap is "a localized form of cultural expression". Angry words are like a skeleton that makes up the rebellious nature of Rap music. As seen in the songs examined, anger is an emotion that is frequently included in Turkish rap songs as well. The rap singers included in the study wrote angry words about their local conditions, social events and sometimes their individual experiences within the current system.

The heavy criticism and anger in the art of rappers, of course, also reflect the influence of the conditions that shaped their lives. Many of them have been sentenced or faced a trial due to heavy political criticism in their songs or words that are said to set a bad example for young people. But the lack of affirmation of rap music and its singers in the current order was not enough to make it invisible. On the contrary, it is very popular among young people today. One of the clearest proofs of this is that the majority of the singers that young people listen to the most are Rap music, as seen in the study. Therefore, instead of ignoring rap music, it becomes even more important to try to understand what young people want to tell through rap music.

At this point, rap music, which is the subject of research as the music genre that young people listen to the most on the digital platform, can be accepted as both a source of identity and an expression of living conditions, as Tyson states (2006 : 213). As seen in the findings of the research, Rap music emerges as a phenomenon in which young people express and reflect their feelings towards the current system. In order to understand what young people want to tell us through Rap music, the overlapping points of the "System-Based Emotions Scale" questionnaire with the themes revealed by the qualitative content analysis method of the study gain importance.

Everyday life practices bear strong traces of the current socio-economic and political structure. Music also occupies a large place in the daily lives of young people. As Bennet points out, the importance of music in daily life, especially among young people, can be seen in its relationship with many ordinary contexts and situations. That's why music is frequently heard in many parts of our daily lives, such as public spaces such as pubs and bars, shopping malls and fitness centres. Moreover, thanks to the development of personal music players and digital platforms, individuals can create their own auditory spaces.

Therefore, it is important to look at the type of music they listen to in order to understand the generation Z, which has been on the agenda recently. With the studies carried out in this area, it may be possible to produce more realistic policies for the generation Z, taking into account the songs that the Z generation prefers to listen to and the emotions expressed according to the type of music they listen to.

In the light of this study, the perspective of young people on rap lyrics can be investigated. How rap lyrics make young people feel can be investigated. In this way, the feelings they feel against the order and the emotions that stand out in the rap music songs they listen to can be brought together with the emotions they feel while listening to these songs, and a more comprehensive view can be revealed.

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RESEARCH ARTICLE

The Adaptation of the Social Curiosity Scale into Turkish: A Validity and Reliability Study

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Abstract

Recently, interest in curiosity-related studies in the national education literature has increased. However, there is a research gap in the studies related to the social curiosity of individuals and measuring the social type of curiosity. The current research aimed to adapt the Social Curiosity Scale (SCS) developed by Renner (2006) into Turkish to contribute to the national literature. Undergraduate and graduate students studying at Turkish state universities constitute the research sample. The scale's Turkish version's exploratory (n=279) and confirmatory (n=310) factor analyzes were performed. In the exploratory factor analysis, the total variance explained by the two-factor and 9-items Turkish form is 63.70%. The first and second-level confirmatory factor analyses confirmed the two-factor model (General Social Curiosity and Covert Social Curiosity) obtained before as a result of exploratory factor analysis. Thus, the results of exploratory and confirmatory factor analysis revealed that the construct validity of the scale was ensured. The Cronbach Alpha internal consistency coefficient ranged between .83 and .85 for the whole scale and its subscales. These results indicated that the scale was highly reliable. It is thought that the scale will contribute to research in many fields such as psychological counseling, media research, and education.

Keywords: *Curiosity, General Social Curiosity, Covert Social Curiosity.*

Öz

Son yıllarda merak ile ilgili çalışmalara olan ilgi yurtiçi eğitim yazınında artmıştır. Ancak bireylerin sosyal merakı ile ilgili ve bu merak türünü ölçmeye yönelik çalışmalarda bir boşluk bulunmaktadır. Mevcut araştırma yurtiçi yazındaki bu ihtiyacı karşılamak için Renner'ın (2006) geliştirdiği Sosyal Merak Ölçeğini (SMÖ) Türkçeye uyarlamayı amaçlamıştır. Türkiye'de devlet üniversitelerinde öğrenim gören lisans ve lisansüstü öğrenciler araştırmanın örneklem grubunu oluşturmaktadır. Türkçeye çevirisi yapılan ölçeğin açımlayıcı (n=279) ve doğrulayıcı (n=310) faktör analizleri yapılmıştır. Açımlayıcı faktör analizinde 9 maddelik iki faktörlü Türkçe ölçek formunun açıkladığı toplam varyans miktarı %63,70'tir. Açımlayıcı faktör analizi sonucunda elde edilen iki faktörlü (Genel Sosyal Merak ve Gizli Sosyal Merak) model, birinci ve ikinci düzey doğrulayıcı faktör analiziyle doğrulanmıştır. Böylelikle açımlayıcı ve doğrulayıcı faktör analizi sonuçları ölçeğin yapı geçerliğinin sağlandığını ortaya koymuştur. Cronbach Alfa iç tutarlılık katsayısı ölçeğin tümü ve alt ölçekler için .83 ve .85 arasında değişmektedir. Bu sonuçlar ölçeğin yüksek düzeyde güvenilir olduğunu göstermektedir. Ölçeğin psikolojik danışmanlık, medya araştırmaları ve eğitim gibi alanlarda yapılacak araştırmalara katkı sağlaması umulmaktadır.

Anahtar Kelimeler: *Merak, Sosyal Merak, Gizli Sosyal Merak.*

Introduction

Accounts of the importance of curiosity can be traced back to Aristotle to Cicero (Markey & Loewenstein, 2014). In modern times, Charles Darwin (1809-1882) and William James (1842-1910) considered the concept of curiosity (Darwin, 1872/2001; James, 1890). In the twentieth century, the concept of curiosity was vital in Vygotsky and Piaget's theories on the development of cognitive processes in childhood (Pluck & Johnson, 2011). Curiosity was introduced into educational research in the mid-twentieth century (Berlyne, 1978; Day, 1982; Markey & Loewenstein, 2014). Such an effective power of curiosity, which is seen as a wonder of the human mind, has brought up the priority of encouraging curiosity in education and training systems (Lindholm, 2018). Because curiosity is related to the intrinsic motivation required for learning (Pluck & Johnson, 2011). In this historical development of the concept of curiosity, curiosity has been examined in terms of philosophical, cognitive development, and epistemic curiosity. However, studies on social curiosity, which is more related to the social aspect of curiosity, are more recent than epistemic curiosity.

Social curiosity, like epistemic curiosity, has many functions in terms of individual and social aspects. With social curiosity, individuals enable themselves to socialize. Social curiosity is the driving force of interpersonal relationships. Cultural learning (Baumeister, Zhang & Vohs, 2004) and observational learning are related to social information (as cited in Han et al., 2013). Social curiosity is one of the prerequisites for acquiring social information. That said, it is possible to see the strong effect of social curiosity in the background of the increase in the use of social media in the world (Baumeister et al., 2004). Because social curiosity is the individual's desire to obtain private and public information about people he met and people, such as celebrities, he never met in his social life. People satisfy their social curiosity by listening to the individuals in their social life, gossiping, and violating the privacy of private life to gather social information (Renner, 2006).

According to related literature, there was a positive relationship between social curiosity and death anxiety (Fitri, Asih & Takwin, 2020). It was found to be a positive relationship between interpersonal curiosity and sharing gossip (Litman & Pezzo, 2007). There was a negative relationship between trait anxiety and epistemic curiosity (Litman & Spielberger, 2003; Litman & Jimerson, 2004). A negative correlation was found between social anxiety and general social curiosity, and a positive correlation was found between social anxiety and covert social curiosity (Renner, 2006). During the Covid-19 pandemic, it was found to be negative correlations between interpersonal distancing and interpersonal curiosity (Huang et al., 2021). In addition, the interpersonal curiosity scale was developed by Litman and Pezzo (2007), and the social curiosity scale was developed by Renner (2006). Zhang (2019) revealed that the SCS developed by Renner (2006) was a valid and reliable scale in Chinese culture.

On the other hand, the contemporary literature on curiosity in Türkiye literature shows that Kashdan et al.,' (2009) curiosity and exploration scale, was adapted into Turkish by Acun, Kapıkıran and Kabasakal (2013), curiosity index was adapted into Turkish by Demirel and Coşkun (2009), epistemic curiosity scale developed by Litman and Spielberger (2003) was adapted by Yazıcı (2020) and Park et al.'s (2014) sports-specific curiosity scale was adapted into Turkish by Korur and Dever (2018). It seems that the contemporary literature on curiosity in Türkiye is not related to social curiosity/interpersonal curiosity. Various interest and curiosity concepts have increasingly been examined in the national literature, especially in the last two decades. Nevertheless, contrary to common belief, epistemic curiosity was already discussed by Sâtı Bey (1908), and both academic and social curiosity was discussed by Selim Sırrı Bey from a scientific perspective nearly one hundred years ago. Moreover, Selim Sırrı [Tarcan] focused on covert curiosity as social curiosity and mentioned the detriment of it in terms of Turkish culture (Tarcan, 1918).

The lack of conceptual consideration of social curiosity and the absence of a measurement tool to measure social curiosity hinder the development of national literature on curiosity. Social curiosity is a concept that concerns many different disciplines such as psychology, education, media research, and marketing. However, the lack of a measurement tool that measures social curiosity hinders both the development of curiosity literature and the development of studies in fields such as psychology, education, marketing, and media research related to curiosity. The current research aims to contribute to the development of the literature in fields such as social curiosity and curiosity-related psychology, education, and marketing by testing the validity and reliability of the Social Curiosity Scale (SCS), developed by Renner (2006). In addition, the current research aims to contribute to the understanding of the scale's generalizability in different cultures by testing whether the two-dimensional (General and Covert) model obtained in SCS is applicable in Turkish culture.

Theoretical Background on Curiosity and Social Curiosity

Curiosity is defined as a kind of behavior in literary texts in European geography (Voss & Keller, 2013). In contemporary definitions, curiosity is defined as the urge to explore and discover (Fitzgerald, 1999), or in general terms as "the desire for acquiring new information" (Renner, 2006, p.305). So, it is a prerequisite of individual's learning and discovery (Berlyne, 1954; Berlyne, 1960; Lindholm, 2018). In terms of education, curiosity is defined as a metacognitive skill (Sinha, Bai & Cassell, 2017). Related literature on how curiosity is formed in individuals present that curiosity is a voluntary action (Voss & Keller, 2013), but it is also stated that curiosity is more instinctive. In this sense, an instinctive theory of curiosity has developed with an evolutionary perspective (Darwin, 1872/2001; James, 1890; Kashdan et al., 2020).

On the other hand, when the theoretical accounts about curiosity are examined, it is seen that there are some theories. First of all, drive theories can be discussed. Drive theories differ in that curiosity is viewed as homeostatic drives such as hunger and thirst and stimulus-induced drives (Loewenstein, 1994). One of the most important drive-based accounts is Berlyne's theoretical perspective (Berlyne, 1954; Berlyne, 1960). Berlyne considered curiosity as an externally stimulated drive (Loewenstein, 1994). According to the theory, the prerequisite for human exploratory behavior is curiosity (Berlyne, 1954; Berlyne, 1960). Berylne made a distinction between perceptual and exploratory curiosity (Berlyne, 1954). Incongruity theory is one of the theories that account for curiosity. According to incongruity theories, curiosity is seen "as a natural human tendency to try make sense of the world" (Loewenstein, 1994, p.82).

Another theoretical approach to curiosity is White's (1959) theoretical accounts. White's (1959) theoric perspective argues that drive theories cannot explain exploratory behavior. According to him, exploratory behavior can be explained not by the concepts of drives or motivations but by the concept of competence.

A more contemporary account is Loewenstein's (1994) "information-gap" theoretical approach. In this theoretical approach, the perception of a gap between people's information and the information they need constitutes curiosity. Regarding the "information gap," it is possible to see more information-based perspectives account for curiosity. Accordingly, as a "category of information-seeking," curiosity is the search for information internal or external motivation (Kidd & Hayden, 2015, p.449). From this point of view, social curiosity is the desire to get information about individuals' social life or social world (Renner, 2006). Put another way, social curiosity is characterized as "people information.". People information includes information about individuals' behavior, beliefs, and feelings in their public and private lives (Litman & Pezzo, 2007). Therefore, this aspect of curiosity indicates socio-cognitive part of curiosity (Sinha et al., 2017).

As a type of information, people information becomes the basis for social comparison theory. Curiosity is the desire to get information, while social curiosity is the desire to get information about the social world in which the individual lives. The basic prerequisite of social comparison is social information. The individual acquires information about the people in his social environment with a motive that includes his curiosity about his abilities and opinions and makes social comparisons with this (Festinger, 1954). In other words, interpersonal curiosity occurs in social comparison behavior as a prerequisite to obtaining information about the individual's social environment (Litman & Pezzo, 2007). Also, people information or social information is the source of an activity such as gossip as an exchange of information between people (Dunbar, 2004). This kind of desire to get information contributes to social interaction in interpersonal relations (Han et al., 2013; Fitri et al., 2020).

With regards to measuring curiosity and social curiosity, it is seen in the curiosity literature that different scales measure different types of curiosity. In the curiosity literature, the five-factor structure of curiosity has been revealed: Manipulation curiosity, perceptual curiosity, curiosity, complexity curiosity, and regulative-reactive curiosity (Kreitler, Kreitler & Zigler, 1974). Also, Wagstaff et al.'s (2021) literature review provides a good summary of the literature on the subject. In sum, the literature on measuring curiosity is summarized as follows: Epistemic curiosity (Litman & Spielberger, 2003), perceptual curiosity (Collins et al., 2004), curiosity and exploration (Kashdan et al., 2004), five-dimensional curiosity (Kashdan et al., 2018), social curiosity (Renner, 2006), interpersonal curiosity (Litman & Pezzo, 2007), work-related curiosity (Mussel et al., 2012), and entrepreneurial curiosity (Jeraj & Maric, 2013).

Material and Method

Model of the Research

The current research aims to test a measurement model in a different sample or culture. *Confirmatory factor analyzes* are the type of analysis that tests measurement models. Since confirmatory factor analysis is a type of structural equation models, it can be said that the current research is a relational (correlational) model (Aksu, Eser & Güzeller, 2017).

Procedure

Initially, necessary ethical approval was obtained from the relevant authorities in the adaptation process of the scale (METU Human Research Ethics Committee protocol number 0073-ODTUİAEK-2022). Based on the relevant ethical statement, it was stated to the participants that the research was based on voluntariness. The English version of the Social Curiosity Scale was translated into Turkish by 5 experts (2 English language instructors, 2 psychological counselors and 1 Turkish language instructor). Then, the original and Turkish versions of the scale were scored by two field experts on a five-point Likert scale. Accordingly, the average of the scores given to each item on the 5-point Likert scale should be greater than 3. The researchers should re-evaluate the items with a score of three or less (Seçer, 2015). Since the two experts scored the original and Turkish versions of the scale, the arithmetic means for each item should be greater than 4. Within this scope, the experts' evaluations revealed the arithmetic mean of each item as greater than 4 ($\bar{x}_{min}$=4, $\bar{x}_{max}$=5). The values obtained showed that the original and Turkish versions of the scale had linguistic equivalence. Then, the Turkish version of the translated scale was translated back into English and two different English language experts expressed their opinions on the scale. Likewise, the experts scored these two forms according to a 5-point Likert scale. The arithmetic mean of each item was greater than 4 ($\bar{x}_{min}$=4, $\bar{x}_{max}$=5) according to the experts' evaluations of the scale's original and back-translated English versions. These values are sufficient to consider language equivalence between the scale's original and back-translated English versions. After the appropriate equivalence approval between the two versions was obtained by the English language experts, the final Turkish version of the scale was created. The average response time of the scale is 3 minutes. Two different administrations were made with the Turkish version of the scale. The approach of performing both EFA and CFA in scale adaptations was adopted (Orçan, 2018). Thus, exploratory (n=279) and confirmatory factor analysis (n=310) were applied to two different data sets obtained from the Turkish version of the scale.

Sampling

Data were collected from undergraduate and graduate students studying at state universities with convenience sampling method. Convenience samples are non-probability samples (Lunneborg, 2007; Jager et al., 2017). In this method, the researcher obtains data from the individuals who are easiest to reach, considering time and cost (Baştürk & Taştepe, 2013). If the target population is selected from a homogeneous group, this method is called homogeneous convenience samples. In such homogeneous convenience samples, the characteristics of subpopulations may vary. The main criterion here is the target sociodemographic characteristic. The limited target sociodemographic feature of this study is university education. In this context, the researchers collected data from university students whom they could easily reach regarding cost and accessibility. Subpopulations (e.g., gender, undergraduate and graduate students) can be expected to differ (Jager et al., 2017). Three of the participants who read the volunteer statement did not want to participate in the research. Thus, the data were collected from two hundred and seventy-nine students for exploratory factor analysis (n=279). The ages of two hundred and seventy-nine participants ranged from 18-36 ($\bar{x}$=21.54). Students studying in undergraduate and graduate programs of state universities are the groups that the data were collected for the exploratory factor analysis (First year n=76; second year n=30; third year n=97; fourth year n=63; graduate n=5; doctorate n=8). The participants were 193 (69.2%) female and 86 (30.8%) were male.

The second phase of the research is the confirmatory factor analysis study. Three hundred and ten participants participated in the confirmatory factor analysis (n=310). The ages of the participants in the second study ranged between 18-34 ($\bar{x}$=22.56). The education level of the students participating in the confirmatory factor analysis is between the preparatory class and doctorate level (Prep class n=1; first year n=36; second year n=35; third year n=99; fourth year n=112; graduate n=24; doctor n=3). The participants were 210 (67.7%) female and 100 (32.3%) were male.

Data Collection Tools

The Social Curiosity Scale developed by Renner (2006) was used as a data collection tool in the current research. The Social Curiosity Scale, which consists of ten items, consists of two factors (General Social Curiosity and Covert Social Curiosity). There is no reverse item in the developed scale. Cronbach's alpha reliability coefficients for the overall social curiosity and covert social curiosity dimensions of the Social Curiosity Scale were .83, .82 and .81, respectively.

Data Analysis

In present research, SPSS 22 program was used in the exploratory factor analysis of the Turkish version of the Social Curiosity Scale. The confirmatory factor analysis of the Social Curiosity Scale was performed with the AMOS 22 program. The goodness of fit values considered for confirmatory factor analysis were $\chi 2/sd < 5$; CFI, NFI and NNFI ≥ .90; GFI, AGFI ≥ .85; SRMR ≤ .80, and RMSEA ≤ .80 (Karagöz, 2019; Schumacker & Lomax, 2004). The reliability of the Turkish version of the Social Curiosity Scale was tested with the Cronbach alpha internal consistency coefficient.

Findings

In the findings part of the study, the results of the exploratory and confirmatory factor analysis performed on the Turkish version of the Social Curiosity Scale are presented. In addition, findings related to the reliability of the aforementioned scale are included.

Exploratory Factor Analysis

Totally, 279 university students selected by convenience sampling method constitute the sample of the study. Students participating in the EFA research, are studying at state universities. Exploratory factor analysis was performed on the Turkish version of the Social Curiosity Scale using the Principal Axis Factoring method. In the first exploratory factor analysis, a model consisting of two factors was obtained as in the original scale. However, the sixth item on the scale is "When other people are having a conversation, I like to find out what it's about." (Factor loads: .490 and .526) were included in both factors. Since the difference between the factor loadings of this cross-loaded item on both factors was not sufficient for being included in a single factor, the item was removed from the scale. After the aforementioned cross-loaded item was removed, the analysis was performed again. According to the second analysis result, the sample size is sufficient according to the Kaiser-Meyer-Olkin (KMO) value of .85. However, according to the Bartlett's test result [$\chi 2 = 1031.9940$; p=.000 <0.001] data showed multiple normal distribution (Seçer, 2015). The variance values of the Social Curiosity Scale are presented in Table 1.

Table 1. Explained Total Variance Rates

Factors	Eigenvalue	Variance (%)	Cumulative Variance (%)
General social curiosity	3,94	43,80	43,80
Covert social curiosity	1,79	19,90	19,90

As seen in Table 1, the variance rate explained by the first factor (General Social Curiosity) with an eigenvalue of 3.94 is 43.80%, and the variance rate explained by the second factor (Covert Social Curiosity) with an eigenvalue of 1.79% is 19.90%. The total variance explained by the nine-item scale (See Appendix) is 63.70%. Thus, as in the original scale, sub-factors with an eigenvalue above 1 and explained variance value above 5% were obtained (Seçer, 2015; Büyüköztürk, 2012). Figure 1 shows the scree plot showing the two-factor structure of the Social Curiosity Scale.

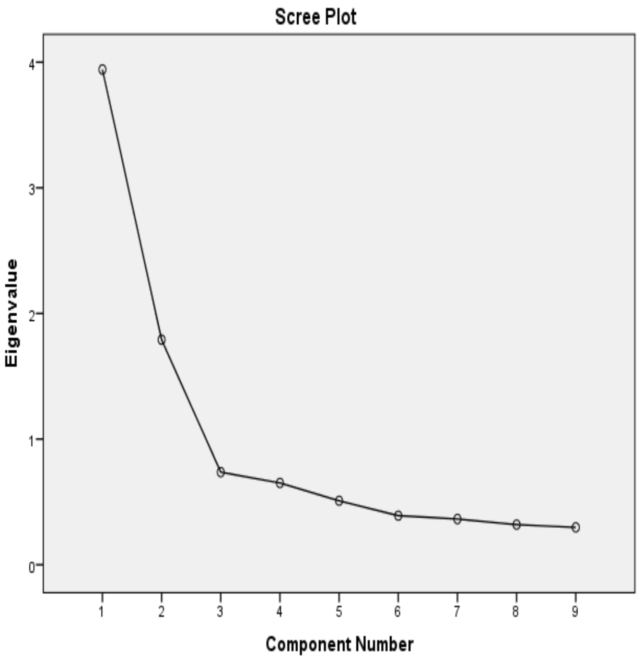

Figure 1. Scree plot for the factor structure of the Social Curiosity Scale

As can be seen from Figure 1, the Turkish version of the Social Curiosity Scale has a horizontal line continuation after the second factor. The line seen in the figure indicates the two-factor structure of SCS. The factor load of nine items in SCS is presented in Table 2 below;

Table 2. Social Curiosity Scale item factor loads

Item	N	Factor Load	Mean	Sd
1	279	.79	3,87	1,01
2	279	.85	3,71	1,08
3	279	.83	3,56	1,15
4	279	.83	3,28	1,22
5	279	.69	3,73	1,14
6	279	.79	2,47	1,27
7	279	.78	2,28	1,32
8	279	.80	1,77	1,13
9	279	.67	2,90	1,34

Table 2. shows the item factor loads, arithmetic mean and standard deviation values of the items related to the Social Curiosity Scale. Accordingly, the factor load (>.32) of each item in the scale is sufficient (Seçer, 2015). The lowest factor load is .67, and the highest factor load is .85 in the scale. Based on the data obtained from the exploratory factor analysis, it is understood that the Social Curiosity Scale forms a two-factor structure in Turkish culture as well as in its original form.

Table 3. Communality Values for the Social Curiosity Scale items

Item	Communality Values
1	.63
2	.74
3	.70
4	.75
5	.50
6	.67
7	.65
8	.65
9	.45

According to Table 3, the communality values of the Social Curiosity Scale items vary between .45 and .75 (See Seçer, 2015). Also, the corrected item-total correlation and the items' Cronbach alpha coefficient values performed in study 1 are presented in Table 4 below.

Table 4. Corrected Item-Total Correlation and Cronbach's alpha values

Items	Corrected Item Total Correlation	Cronbach's alpha when item is deleted
1	.563	.810
2	.633	.802
3	.549	.810
4	.689	.793
5	.515	.814
6	.556	.809
7	.523	.814
8	.455	.821
9	.374	.833

According to Table 4, corrected item-total correlations (ranged from .374 to .689>.28) showed satisfactory correlation for all items (Kartal & Bardakçı, 2019). The items' Cronbach alpha coefficient values in the Turkish version varied between .793 and .833. The Cronbach's alpha values are sufficient. Therefore, it was not necessary to remove items from the scale (Seçer, 2015).

Confirmatory Factor Analysis

Confirmatory factor analysis was performed with a different sample (n=310) to confirm the Turkish version of the Social Curiosity Scale, which consists of nine items and two sub-dimensions. Before data analysis, univariate and multivariate normality of the data were checked. It was seen that the skewness (-.782-1.368) and kurtosis (-.1,144-.634) values provided the necessary assumption for the univariate normality of the data (Tabachnick & Fidell, 2013; Seçer, 2015). On the other hand, according to the critical ratio (CR) value of the data (c.r.=8,420), it can be said that multivariate normality is not problematic (Kline, 2015; Karagöz, 2019). After testing the necessary assumptions, confirmatory factor analysis was carried out. In the confirmatory factor analysis, the two-factor measurement model indicated good fit values as in the original scale. The fit index values are presented in Table 5.

Table 5. Goodness of fit values for the SCS

	$\chi 2$/sd	CFI	NFI	NNFI	GFI	AGFI	RMSEA	SRMR
The First-Order CFA	2,92	96	94	94	.95	.91	.08	.05
The Second-Order CFA	2,92	96	94	94	.95	.91	.08	.05

Table 5. shows the values obtained as a result of the first and second level confirmatory factor analysis of the Turkish form of the Social Curiosity Scale. According to Table 4., the goodness of fit values for both the first and second level models ($\chi 2$/df=2.92; CFI=.96; NFI=.94; NNFI=.94; GFI=.95; AGFI; 91; RMSEA=.08, and SRMR=.05) seems to be at a sufficient level (Karagöz, 2019; Schumacker & Lomax, 2004; Kline, 2015). The path diagram of the first and second level factor analysis of the Social Curiosity Scale and the relationships between the factors are presented in Figure 2.

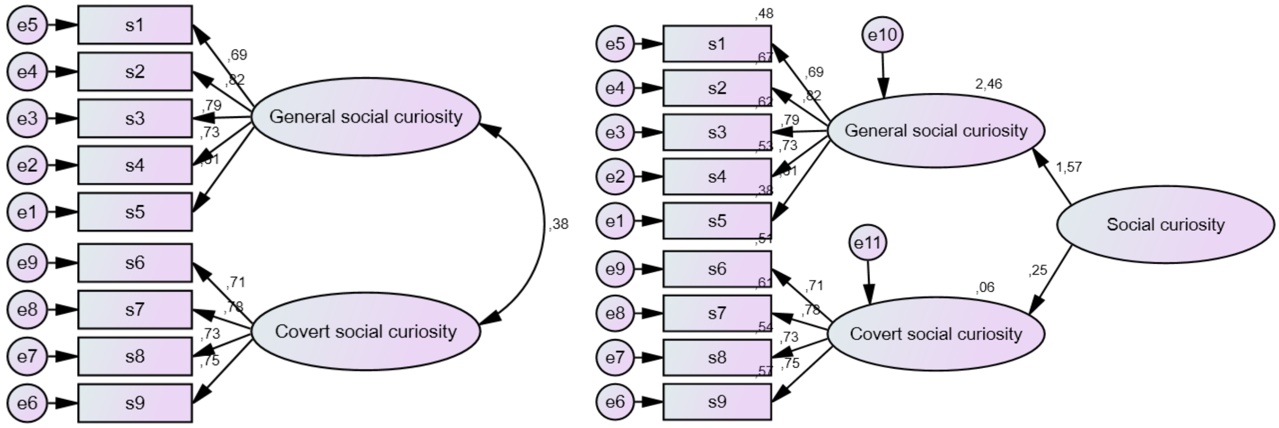

Figure 2. SCS first and second order confirmatory factor analysis path diagram

The path diagrams are first and second level confirmatory factor analyzes of the Turkish form of the social curiosity scale in Figure 2. According to the values in Figure 2., the standard factor loads of each item vary between .61 and .82. Based on the data in the path diagrams, it can be said that the first and second order models of the scale have good fit values. On the other hand, the Cronbach's alpha internal consistency coefficient for the Turkish version of the Social Curiosity Scale is .83 for the whole scale, .85 for the General Social Curiosity dimension, and .83 for the Covert Social Curiosity dimension (n=310). According to these internal consistency values, the Turkish version of the Social Curiosity Scale has a high level of reliability (Seçer, 2015).

Discussion, Conclusion and Recommendations

In the current research, curiosity and types of curiosity are explained conceptually. It is stated in the research that both epistemic curiosity and social curiosity were examined by Ottoman educators a century ago. After explaining the concepts related to curiosity, the Social Curiosity Scale was adapted to Turkish and the psychometric features of the scale were tested. At this stage, first of all, SCS’s translation into Turkish was made. The validity and reliability analyses of the scale, translated into Turkish, were made through the collected data. A two-factor (General Social Curiosity and Covert Social Curiosity) model was obtained in the Turkish form of the Social Curiosity Scale developed by Renner (2006). In the exploratory factor analysis, only one of the ten items in the original form of the scale was eliminated because it was cross-loaded factor. In scale adaptations, items that have cross-loaded characteristics can be observed. In this case, if sufficient loadings difference cannot be obtained, the items are removed from the scale (Bellier et al., 2020). In the exploratory factor analysis results, a two-factor model consisting of nine items was reached. The two-factor model in the current study indicated the same structure as the model in the original form of the scale. Therefore, the research revealed that the model in the original form of the scale was also confirmed in terms of Turkish culture. Similar to the result of the research, Zhang (2019) reached a two-factor model in the adaptation study of the scale he conducted with Chinese university students. The current study and the result of Zhang's (2019) research contributed to the generalizability of SCS in different cultures. In addition, the second-order factor analysis of the scale showed that the factors came together under the name of “social curiosity” latent structure of general social curiosity and covert social curiosity dimensions. Finally, the current study indicated that SCS is a valid and reliable scale in Turkish culture. The scale is a valid and reliable measurement tool that measures the social curiosity of individuals.

On the other hand, social curiosity depends on environmental conditions such as innovation (Voss & Keller, 2013), social advice (Wu et al., 2016), social networks and online information consumption (Sousa et al., 2022), organizational contexts (Wagstaff et al., 2021) and judging visible features (Hartung & Renner, 2011) are mentioned in the related literature. In this context, it is thought that the Social Curiosity Scale, whose validity and reliability has been proven in Turkish culture, will contribute to research in many fields such as social psychology, psychological counseling, education and marketing.

The current research has some limitations. Since the sampling method in the research is a convenience sample, it does not make it possible to generalize the research results to different populations. However, since the research sample limits the target population to university students, it may seem possible to generalize to the related university students (Jager et al., 2017). In addition, since the original scale was developed with a population of young and older adults, future studies involving older adults may be conducted. Thus, the scale's psychometric properties on older adults can be tested. In addition, when some studies are examined, it is seen that the social curiosity scores of young adults and older adults differ (Renner, 2006). Therefore, future studies on whether the social curiosity scores of young adults and older adults differ in Turkish culture will contribute to the relevant theory because social curiosity is related to cultural learning (Baumeister et al., 2004; Kurtbaş, 2011). Kurtbaş (2011) states that social curiosity, which is a drive and a social stimulus, is also a concept that cannot be dissociated from cultural structure. In terms of Turkish culture, as mentioned above, Tarcan (1918) discussed social curiosity and conceptualized covert social curiosity in a sense. Tarcan discussed covert social curiosity in terms of culture and considered covert social curiosity as a very bad feature in terms of Turkish culture, even as a sick mood. Therefore, qualitative and quantitative studies that approach culturally related social curiosity will make a great contribution to the relevant theory.

Nonetheless, another factor related to curiosity is gender differences. More specifically, many studies examined the relationships between curiosity and exploration, as a type of curiosity, and gender. While some of the studies examining the relationship between curiosity and exploration and gender differences have found differences in terms of gender (Ben-Zur & Zeidner, 1988; Acun et al., 2013; Litman & Spielberger, 2003; Kapıkıran & Kırmızı, 2019), some studies have not (Engelhard & Monsaas, 1988; Acun et al., 2013; Şentürk, 2020; Ustabulut, 2021).

When it comes to social curiosity, it is seen that Kurtbaş (2011) examines the relationships between social curiosity and gender. In the study above, it was determined that women were more prone to covert social curiosity. However, studies examining the relationships between social curiosity and gender are inadequate. For this reason, future studies will contribute to the related theory, which will focus on the relationship between social curiosity (general and covert) and gender.

That said, social curiosity should be taken into account in advertising, marketing, and media studies. As a matter of fact, the studies conducted in this field in Türkiye included curiosity (Özsungur & Güven, 2016; Eşiyok, 2017; Tokmak, 2019; Yemez, 2016; Çelik, 2019; Albayrak, 2020), but social curiosity was not discussed as a concept, and variable. In social media, covert curiosity is effective, especially in the desire to learn about the private lives of celebrities. In social networks (Facebook, Twitter, Instagram, etc.), individuals' effort to get information about what people in their social life or the attempt to get information about what celebrities do in their private or public lives is related to general and covert social curiosity.

However, neither general nor covert social curiosity has been discussed in the review and experimental type of social media research in Türkiye. Therefore, it is thought that the adapted scale will contribute to new studies in marketing and media research. In addition, considering the relationship of social curiosity with concepts such as anxiety and social anxiety (Fitri et al., 2020; (Litman & Spielberger, 2003; Litman & Jimerson, 2004; Renner, 2006) the relationship between anxiety and social curiosity can be examined in terms of seeing the effects in Turkish culture. In sum, as stated in Vega-Oliveros et al.'s (2017) study, curiosity or social curiosity is a subject that can be examined in many fields such as marketing, education, politics, and health.

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Appendix

SMÖ **Aşağıdaki ifadelere katılım düzeyinizi 1 ile 5 arasında puanlayınız.**	**Hiç Katılmıyorum**	**Katılmıyorum**	**Kararsızım**	**Katılıyorum**	**Kesinlikle Katılıyorum**
Genel Sosyal Merak					
1. Yeni biriyle tanıştığımda onun hakkında daha fazla şeyler öğrenmek ilgimi çeker.	1	2	3	4	5
2. İnsanlara karşı ilgiliyimdir.	1	2	3	4	5
3. Yeni insanlar tanımayı heyecan verici bulurum.	1	2	3	4	5
4. Başkalarının alışkanlıklarını öğrenmekten hoşlanırım.	1	2	3	4	5
5. Başkalarının nasıl çalıştığını keşfetmek hoşuma gider.	1	2	3	4	5
Gizli Sosyal Merak					
6. Tren ve benzeri bir toplu taşıma aracındayken diğer insanların kendi aralarındaki konuşmalarını dinlemeyi severim.	1	2	3	4	5
7. Ara sıra pencerede durup komşularımın yaptıklarını izlemeyi severim.	1	2	3	4	5
8. Işıkları yanan bir evin içini seyretmek hoşuma gider.	1	2	3	4	5
9. İnsanlar tartıştığında, neler olduğunu bilmek hoşuma gider.	1	2	3	4	5

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RESEARCH ARTICLE

Exploring the Accountability Relationships of Turkish School Principals: A Qualitative Study

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Abstract

In developed countries, accountability mechanisms, external control and standardized testing to increase student academic achievement have fundamentally influenced school principals and their management styles. On the other hand, much is unknown about the Turkish principals' experiences in their accountability environment. This is significant because accountability relationships might be even destructive for principals and the school learning environment despite the intended formative and supportive purposes. Therefore, the purpose of this study is to explore the accountability relationships of Turkish K12 school principals. The data of seventeen purposefully-sampled Turkish school principals were collected through in-depth phenomenological interviews. Data analysis yielded five major themes with supporting sub-themes: bureaucratic accountability environment, market accountability environment, professional accountability environment, accountability intensity, and accountability impacts on principals, teachers, schools, students and parents. Knowing the nature of context-dependent accountability environments can help principals adopt new roles and help policymakers improve their ill-natured accountability relationships, principal preparation and development programs.

Keywords: *Accountability, Principals, Control, Expectations, Responsibility, Phenomenology.*

Öz

Gelişmiş ülkelerde, öğrencilerin akademik başarısını artırmak için uygulamaya konulan dış kontrol ve standartlaştırılmış testler gibi hesap verebilirlik mekanizmaları okul müdürleri ve yönetim stilleri üzerinde önemli etkiler üretmiştir. Buna karşın, Türkiye'de okul müdürlerinin hesap verebilirlik ortamlarına ilişkin tecrübeleri hakkında yeterince bilgi sahibi değiliz. Bu eksiklik önemlidir, çünkü hesap verebilirlik ilişkileri ne kadar iyi niyetle tasarlanmış olsalar da müdürler ve öğrenme ortamları için yıkıcı etkiler üretebilir. Bu nedenle, bu çalışmanın amacı Türkiye'de okul müdürlerinin hesap verebilirlik ilişkilerine ilişkin deneyimlerini ortaya koymaktır. Amaçlı olarak örneklenen on yedi okul müdüründen derinlemesine fenomenolojik görüşmeler yoluyla veri toplanmıştır. Veri analizi sonucunda destekleyici alt temalarla birlikte beş ana tema ortaya çıkmıştır: bürokratik hesap verebilirlik, piyasa hesap verebilirliği, profesyonel hesap verebilirlik, hesap verebilirliğin yoğunluğu ve okul müdürleri, öğretmenler, okul, öğrenciler ve veliler üzerindeki hesap verebilirlik etkileri. Okullardaki hesap verebilirlik ortamlarının doğasını bilmek, müdürlerin yeni roller geliştirmelerine, politika yapıcıların ise olumsuz sonuçlar üreten hesap verebilirlik ilişkilerinin düzeltilmesine, okul yöneticisi hazırlama ve gelişim programlarının geliştirilmesine katkı sağlayacaktır.

Anahtar Kelimeler: *Hesap Verebilirlik, Okul Müdürü, Kontrol, Beklenti, Sorumluluk, Fenomenoloji.*

Introduction

As a social system, the ability of schools to produce the desired results depends on the harmony between their structure and human elements. School accountability policies aim to ensure this harmony for efficient and effective school processes and outcomes. In this sense, accountability is considered as a control system in organizational life, or as a reward or punishment system that ensures compliance with organizational standards (Frink & Ferris, 1998). It is also reflected as organizational mechanisms that monitor and evaluate policies and practices as a response to the expectations of various stakeholders. Accountability ensures the coordination of the organizational actions, control of the organizational processes and results, and enables the organization to function in an orderly, efficient, effective and fair manner (Enzele & Anderson, 1993; Frink & Klimoski, 1998; Hall et.al, 2007; Yarnold et al., 1988).

Regarding the international accountability literature, it is seen that rapid changes after the 1980s and new concepts in economic, political and social environments, learning and school management changed the general environment of schools, and created a new task environment that includes a new demand for increasing student achievement. It is stated that there is great pressure on schools to develop new practices that will enable students to access high-level academic skills (Cranston, 2007; Fullan, 2001), and principal leadership has become one of the most emphasized factors in the discussions on school improvement since it was revealed in school effectiveness research that it is the second most powerful factor after teachers who have indirect or direct effects on student achievements (Branch et al., 2012; Dufour & Marzano 2011; Louis et al., 2010; Niesche, 2010). Therefore, external expectations and pressures on the school principal have increased, and the roles of the school principal have changed radically (Thomson, 2009). School principals started to work under the pressure of various formal and informal accountability relationships with bureaucracy, teachers, teacher unions, parents and students. New accountability mechanisms were established such as "state testing, standardized and audited curricula, school rankings, school funding through competitive grants, and new forms of educator performance evaluation" (Cohen, 2014, p.1). In this emerging context, the focus has shifted from the school community to external accountabilities, and educational discussions became more curriculum, data, student achievement, teacher development, and teacher leadership oriented than management issues. Therefore, principals are now held responsible for having many context-sensitive (Hallinger, 2018) different roles of "instructional leader, human resource manager, financial planner, strategic advisor, counselor, staff and parent mediator, mentor, [and] coach" (Wicher, 2017, p. 24).

On the other hand, principals are challenged by these diverging and even conflicting expectations, and they have to understand their nature and the ways to meet them (Tamadoni et al., 2021). This has also raised the concern that the principal role has become unmanageable. This is significant because the pressures created on school principals have the power to shape their feelings, attitudes, thoughts and actions, determine their management philosophies and styles, and produce positive or negative effects on learning environments. Furthermore, these changing external and internal expectations could create challenges that hinder school daily functioning (Huber, 2004; Oplatka, 2004).

Reviewing Turkish education literature reveals that academic discussions focus more on teacher accountability (Çalmaşur & Uğurlu, 2021; Erdağ, 2013; 2021; Karagöz, 2017; 2021; Kardaş, 2016; Öztuzcu & Balkar, 2021; Yenipınar, 2021). A small number of studies conducted specifically for school principals focus rather on accountability and organizational justice relationship (Kalman & Gediklioğlu, 2014), school principals' understanding of accountability and the benefits expected from accountability practices (Himmetoğlu et al., 2017), accountability as a leadership standard and assessment (Aslan & Karip, 2014), school principals' accountability for school processes and results (Çalmaşur & Uğurlu, 2021; Abdurrezzak & Uğurlu, 2018), inequalities in school principals' accountability (Çetin &

Demirbilek, 2018), school stakeholders' access to a right of information and its effect on school management (Eski et al., 2019; Işık & Bahat, 2019), school principals' conceptualizations of accountability, ideal accountability relationships and the characteristics of accountable school principals (Argon, 2015), and school principals' experiences of accountability for student achievements (Yıldırım & Yenipınar, 2019). On the other hand, these studies mostly focus on the accountability relationships between the school principal and the senior management and inspection units and include discussions about how it is and should be while the nature of principals' current accountability environment is not systematically addressed. In this context, the purpose of this study is to explore the Turkish school principals' experiences in their accountability environment, and to seek answers to these research questions: (i) what statements describe these experiences?, and (ii) what themes emerge from these experiences? This study is significant in its potential benefit to researchers that present a new perspective on understanding principal accountability relationships. Additionally, it will allow school principals to recognize the different expectations and pressures on schools and adapt to new roles, and help policymakers restructure school accountability relations and improve school principal preparation or development programs.

Method

Research design

This study follows the phenomenological design to get the detailed understanding of principal accountability in Turkish education context. Phenomenology emphasizes the experience itself (Merriam, 2015). Following the principles and processes of the hermeneutic paradigm and phenomenological approach, this study explored how school principals experience the accountability phenomenon in their natural environment. Because the researchers have experience in school administration and school accountability research and familiarity with the accountability data from the school administration, this research design is appropriate to answer the research questions (Creswell, 2017; Yıldırım & Şimşek, 2013). Principal accountability, nevertheless, is limited to the experiences and opinions of the participating principals.

Participants

Participants in the study were diversified based on gender, education and school level, experience and school socio-economical level, informed by the assumption that principals' individual and environmental factors may influence their experiences with their accountability environment (Breaux et al., 2009; Creswell, 2017; Demerouti et al., 2001; Merriam, 2015). In the period between April and June 2019, 17 school administrators, the number of which is considered sufficient for phenomenological studies (Creswell, 2017), participated in this study from different gender (females: 4; males: 13), education levels (2-year college: 1; Graduate: 13; Post-graduate: 3), school levels (Primary s.: 5; Middle s.: 10; High s.: 2), total experiences (5y and less: 4; 6-10 years: 2; 11-15 years: 2; 16 years +: 9), and school socio-economical level (Low: 4; Middle: 12; High: 1). It was assumed that school principals, who were informed about the study in advance, were willing to provide information. Demographic information of the participants is given below in Table 1.

Table 1.

Participants' demographics

Variables	1	2	3	4	Total
Gender 1: Female; 2: Male	4	13	-	-	17
Education level 1: 2-year college; 2: Graduate; 3: post-graduate	1	13	3	-	17
School level 1: Primary S.; 2: Middle S.; 3: High S.	5	10	2	-	17
Total experience (year) 1: 5y-; 2: 6-10y; 3: 11-15y; 4: 16y+	4	2	2	9	17
School socio-economic level 1: Low; 2: Middle; 3: High	4	12	1	-	17

Data Collection

The data were gathered from school principals through six questions prepared following the holistic accountability environment framework developed by Hall et al. (2007) and improved by Frink et al. (2008). It describes accountability environments on four different dimensions; (*i*) sources of accountability pressures, (*ii*) their focus, (*iii*) their intensity, and (*iv*) accountability salience. After pilot study for testing comprehension and confirmation by two education faculty members who are experts on educational accountability, final interview questionnaire consists of two parts; questions about participants' demographics, and questions for exploring principals' experiences of their accountability environment. Participants were asked to answer these open-ended questions: (*i*) who asks you for an explanation or justification about your decisions or actions? (*ii*) to whom do you feel to explain or justify your decisions or actions?, (*iii*) on what issues do they ask for your explanation or justification, what are the expectations or pressures on you while performing your duty, and what is the focus of their expectations, (*iv*) how do they evaluate whether you are effective at your duty or not? (*v*) does any expectation conflict with another? do you sometimes feel overwhelmed by the expectations? (*vi*) what is the impact of your account-giving? On yourself? On teachers? On parents and students? Any negative or positive impacts on school processes, outcomes, or stakeholders? The interviews were conducted face-to-face in principals' office rooms because they might feel and talk most comfortably. School principals were first given a sample interview form and prepared for the interview where the school principal's answers were audio-recorded, each of which was 40-50 minutes long on average. School principals were requested to check and correct the mistakes in the content of the interview transcribed.

Data Analysis

Following the data analysis steps by Moustakas (1994), each transcript generated as a transcribed version of the audio recordings for each interview using the MS Word program and checked for the data inter-compatibility, was open-coded, axis-coded and selective-coded, respectively, by the researchers based on the text meaning, and then common codes were determined comparatively and finalized based on the common codes collectively discussed and confirmed. Sub-themes were then inductively generated based on the abstractions and inter-relations between the codes. Emergent sub-themes were grouped again and presented in tables by comparing and matching with the theoretical themes as depicted in the conceptual framework. Direct quotations were identified to best support the sub-themes.

Validity and Reliability

In order to validate the study, the following strategies were implemented, recommended by Creswell and Miller (2000). First, interview questions were created based on the accountability environment framework developed by Hall (2007) and improved by Frink et al. (2008). Interview data were triangulated to provide corroborating evidence from different sources of principals of different genders, education levels, school levels, and work experiences. Two researchers, one experienced as a principal and the other as a supervisor, coded the interview transcripts. Last, for credibility and accuracy of the account, participant principals and two external experts on educational accountability were asked to check interview data, codes, themes, interpretations and conclusions.

For the reliability of the study, each researcher conducted the first three transcript coding independently and discussed and reconciled the inconsistencies between the codings in a following collaborative session to create a common codebook for the coding of the rest. After coding all transcripts, agreement ratio of 77% was established on coding between the coders, very close to the recommended ratio of 80% by Miles and Huberman (1994).

Findings

Based on the analysis of the interview transcripts were found five main themes, and presented below according to the data representation approach (Miles & Huberman, 1994). They describe the principal accountability environments and their direct and indirect impacts on Turkish K12 school principals and school stakeholders. They are (*i*) "bureaucratic accountability", (*ii*) "professional accountability", (*iii*) "market accountability", (*iv*) "accountability intensity", and (*v*) "Other impacts of total accountability environment", namely. Each theme of accountability environments, bureaucratic, professional and market, is composed of 'accountability source', 'accountability focus', and 'principal-specific impacts'. These sub-themes describe various accountability pressures and their influences on the principals. The theme, accountability intensity, describes how school principals manage various surrounding accountability pressures. The last theme, other impacts of total accountability environments, describes the total impact of accountability pressures on schools in general, and on teachers, parents, and students.

Bureaucratic accountability

Table 2 summarizes the principal experiences with the bureaucratic accountability environment and its impact on the principals.

Accountability source: Principal interviews revealed that bureaucracy is the dominant environment of principal accountability at Turkish K12 schools. Especially, local educational administrators at province or county levels (17) and inspectors (10) are the first two sources of accountability pressures. National education ministry (7), branch administrators (3), province (2) and district governors (2) are other prominent sources of accountability. On the other hand, the least frequent bureaucratic sources of accountability are courts (1), board of ethics (1) and discipline boards (1). One of the participant principals (P1) stated that *"inspection agency, higher administrative authorities, provincial and district directors of national education, district governorship, inspectors and parents are among the people and institutions to whom we are accountable and to whom we make justifications."*

Table 2. Sub-themes and Codes Included under the Theme of 'Bureaucratic Accountability'

1. Bureaucratic Accountability		
Accountability source [f]	Accountability focus [f]	Principal-specific impacts [f]
provincial/district directorate of national education [17]	Compliance with regulations [14]	Provides me with feedback [6]
Inspector [10]	School outcomes [11]	I work more meticulously [5]
National Education Ministry [7]	Student success [4]	Makes my work easier [5]
Branch administrators [3]	Student satisfaction [4]	Reduces my mistakes [4]
Province Governor[2]	well-being of school stakeholders [3]	Helps me comply with the regulations [4]
District Governer [2]	Parent satisfaction [3]	Makes me more transparent [4]
Dicipline boards [1]	Compliance with ethic principles [3]	Makes me trustworthy [4]
Courts [1]	School activities planned for the new term [2]	Guides me [3]
Board of Ethics [1]	School expenses [2]	I constantly evaluate what we do [3]
	School climate [2]	Increses my motivation [2]
	Primary education institutions standards [2]	I feel safe [2]
	Physical conditions of the school [2]	Help me comply with ethical rules [2]
	Effective teaching [2]	I don't take risks [2]
	personnel satisfaction [2]	Creates stress and fear in me [2]
	Socio-cultural and sports activities [1]	Creates status quo [1]
	Documentation of work done [1]	I hold meetings constantly [1]
	Relations with NGOs [1]	I monitor student achievements [1]
	Activities for parents [1]	I ask my superiors' approval [1]
	Academic activities [1]	Increases my self-confidence [1]
		I consult my decisions [1]
		Audit sometimes turns into a puposeful search for my mistake [1]

Accountability focus: These pressures mainly seek compliance with educational regulations (14) set by the central Ministry of Education and the quality and quantity of school outcomes (11). Other foci of the pressures are student success (4), student satisfaction, parent satisfaction (3), stakeholders' well-being (3), and compliance with ethical principles. For example, the principal (P10) stated that:

"The biggest factor in our national education is compliance with the rules rather than standards. In other words, you have to comply with the regulations, the constitution, the circulars and the regulations of the primary education authority. You have to comply with the internal regulations and circulars. That's all. These

are the expectations of our biggest controllers. Compliance with the rules is at the forefront." (P10)

Additionally, one of the principals (P2) also drew attention to the school outcome reports sent to the senior management regarding the results of the school programs prepared at the beginning of the year and put into practice with the approval of the senior management. He stated that:

"There are programs and activities planned at the beginning of the year. We are asked for reports on whether those activities have been carried out. We prepare those reports. It's about health, hygiene, etc. Apart from those, there are also plans for many educational issues related to social and cultural activities. Again, we prepare a report on whether the plans made are realized or not." (P2]

Another participant principal (P16) emphasized schools' self-evaluation reports within strategic planning programs since 2010. He stated that:

"Strategic planning [is] where we give an account of whether we have achieved the goals set four years ago. You need to foresee the next four years in advance, the work you will do for parents, academic activities, sports activities, and school physical improvements. In the end, you have to report how much you have gained after four year period of work." [P16]

Another school principal (P1) also focused on inspections. Pointing to its financial and instructional functions, he stated that their school is audited for *"school expenditures, the decisions made at branch teachers board meetings and teacher board meetings, and their implementation and the results produced."* He also added:

"Some [inspectors] focus on the quality of the work. For a determined achievement level, they look at how much the students have gained that achievement. Others make assessments on paper. They care how many students have gained that achievement rather than how much is gained. For these people, even if that achievement gain is very low, it is not seen as a problem." [P1]

Principal-specific impacts: Principals also report that the bureaucratic accountability environment has both positive and negative impacts on their work. On the positive side, they most frequently state that it provides feedback (6), forces them to work more meticulously (5), facilitates their work (5), reduces their mistakes (4), forces them to comply with the regulations (4), and increase their transparency (4) and trustworthiness (4). On the other hand, some school principals also state that the bureaucratic accountability pressures cause fear and stress in them (2), and create a status quo (1). Some quotations from the principal responses are as below:

"This is how we can show what we do, how much we do, in which subjects we progress and in which subjects we regress." (P9)

"A person who thinks he has to give an account tries to avoid mistakes as much as possible. It works in a planned and programmed manner, and more importantly, it keeps the plan and schedule of every work he does. For school principals unprepared, auditing and accountability can be perceived as frightening events. We do not encounter such a situation. Unprepared people shy away from control." (P1)

"[…] For example, when there are people who do not want to take risks, they work to a certain standard in these tasks. Only when compliance with the procedure is important and there is a thought that I do not take risks and just follow the procedures, and the rest is not my concern, it is not possible to rise above a certain standard. Change doesn't happen, no development takes place, and it just depends on bureaucracy, on paper." (P14)

Table 3. Sub-themes and Codes Included under the Theme of 'Professional Accountability'

2. Professional Accountability		
Accountability source [f]	Accountability focus [f]	Principal-specific impacts [f]
Teachers [12]	compliance with regulations [2]	I make my decisions together with the teachers [5]
Branch teachers' board [3]	Teachers' well-being [1]	I inform the teachers about the decisions made [2]
Teacher Unions [3]	Teacher rights [1]	Teachers provide me with feedback [2]
Teachers' council [2]	Student rights [1]	Teachers support me [2]
Other school principals [2]		I care about the happiness of teachers [2]
		I explain the rationale behind my decisions [1]
		Teachers trust me more [1]
		I feel peaceful [1]

Professional accountability

Table 3 summarizes the principal experiences with the professional accountability environment and its impact on the principals.

Accountability source: Principals report that the teaching profession is the second accountability environment. It consists of teachers (12), teacher boards (3) and teacher unions (3) as the source of accountability. Some quotations from the principal responses are as below:

"[…] we have a Board of Teachers. We have board meetings at the beginning and end of each term, where the school activities carried out are evaluated. If there is a situation that needs to be accounted for, it is asked there. In other words, it is asked from the school administration as well as from the teacher. Whoever is in charge and responsible." [P2]

"Of course, our branch committees and teachers' committees are provided with information by the school administration, if requested." [P2]

Accountability focus: Professional accountability pressures mainly focus on principals' compliance with educational regulations when making decisions and their implementations (2), and teacher and student well-being (1). For example, the participant principal (P10) stated that teachers are "*scrutinizing*" their all decisions and practices, and they "*discuss*" the educational practices with the school administration. Additionally, the participant principal (P15) emphasized teacher and student rights at schools, and the role of teacher unions as below:

"Teacher unions are non-governmental organizations that protect the right of the teacher, defend the right of the students, and make an effort to contribute to education in schools. If there are any problems with the schools, we discuss and make the necessary negotiations for a more successful education life." (P15)

Principal-specific impacts: School principals also state that these pressures forced them to make decisions together with teachers regarding school processes to alleviate teacher criticism and doubts (5), and keep them informed about the decisions (2) and the rationale behind them (1). They also state that their professional environment provides principals with feedback (2), they support (2) and trust them (2), and care more about teacher happiness (1). Some quotations from the principal responses are as below:

"We strive to make decisions together for the organization to work better and for transparency. Even if we have made a decision ourselves, we inform the teachers of our decision and its reasoning by organizing a meeting or by any other means." (P1)

"Transparency is always good. If you are making a mistake that you think is right, your stakeholders around you will warn you and make you turn from the wrong you have done." (P15)

"…after all, the exchange of ideas is always important. You are the only person, you hear with two eyes and hear with two ears, but if you consult one, you see with four eyes, hear with four ears, and think with two brains. Therefore, it gives you strength in your decisions and activities." (P2)

Market accountability

Table 4 summarizes the principal experiences with the market accountability environment and its impact on the principals.

Accountability source: Principals report that the third accountability environment is the market. Parents (10), school-parent partnerships (3), and students (3) are the ultimate sources of accountability pressures.

Accountability focus: Market accountability pressures mainly focus on social, cultural and educational activities at schools (4), student success (3), students' well-being (3), student safety (2), and student discipline issues (1) as much as school budget (2) and outcomes (2). Some quotations from the principal responses are as below:

Table 4. Sub-themes and Codes Included under the Theme of 'Market Accountability'

3. Market Accountability		
Accountability source [f]	Accountability focus [f]	Principal-specific impacts [f]
Parents [10]	Educational activities [4]	I make decisions together with parents [1]
Students [3]	Student success [3]	I care about students' happiness [1]
Parents-School Association [3]	Students well-being [3]	I involve students in decision-making processes [1]
Local people [2]	Student safety [2]	I inform students about our decisions [1]
Press [2]	School results [2]	I inform parents about teaching activities [1]
	School budget [2]	
	Student dicipline issues [1]	

"If the student is in peace, there is no disruption, and there is no environment that will pose a danger to the children, then the parents trust to school. They do not want their child to experience negative things, he does not want a stone to touch his foot or fall. Or he doesn't want a problem in his education life." (P10)

"One of the most important things parents want from school is of course academic success […] they also want to know that the school is a safe environment. One of the things they pay attention to when they come is how safe is the school, whether can we leave our children with peace of mind, how are the teachers, how are their behaviours, and how are the administrators. That's all they care about." (P14)

"[…] we have parent meetings where we provide explanations and information about the activities we do." (P2)

Principal-specific impacts: School principals also state that these pressures specifically forced them concern with students' happiness (1), involve both students (1) and parents (1) in decision-making, and inform students about the decisions made (1) and parents about the teaching activities (1). One of the participant principals stated that he "*make[s] school decisions together with parents*" [P14]

Accountability intensity

Table 5 summarizes the principal experiences with the various accountability relations and the total impact on the principals.

School principals state that their surrounding accountability environment is not that impressive in total (12). A participant principal emphasized the weakness of accountability pressure, and stated that:

"[…] there is no one who asks for an account because there is no one. I wish they would ask, I think they will be more committed to school, and they will be much more involved in the school both financially and emotionally, but I think they are away because they do not hold accountable and do not know what is going on where." (P11)

On the other hand, participant principals also state that, despite their weakness, demands come from different sources (3), and complain that some conflict with each other (5), especially parent demands with central regulations (4) and ethical principles (4), whereby parent demands become tensing (2) and difficult to meet (3). The princiapal P1 stated that they are surrounded by *"various pressures", but they are having difficult times because "conflicting demands are coming in."* Some principals exemplified this difficulty as below:

"Of course, there are conflicting demands that come on me. For example, there are 10 classrooms and 10 teachers. During the enrollment, we try to equally distribute the children enrol per teacher, but all students concentrate on one teacher. A political elder calls and says 'that teacher will teach this boy. Contrarily, the law does not say so. When we do what they want, one class becomes 20 students and another 40. This time they ask why we did so and did not distribute equally […] Then you become the scapegoat." (P3)

"Parents want a lot, whether it is legitimate or not. They want the impossible. To exemplify, one parent comes and says that their child should go to this or that class […] should get high scores, and become first in every assessment […] They want a high score even if the child cannot do it either, instead they force you to give a high grade. They even want to have an impact on their written exams." (P10)

The least frequent principal statements are family shift of responsibility (2) and purposeful auditing for a principal mistake (1). Some supportive quotations from the principal responses are as below:

"One of our biggest problems […] is that families not caring for their children blame us for troubles their child involved and hold us accountable. They expect too much from us. Although they do not fulfil their parental duties, they want us to take care of them more." (P4)

"After all, since we are administrators, every decision we make is questioned. Checking the decisions is a must, but constant questioning by the audience damage the accountability relationship, […] and checking turns into an investigation for my mistakes." (P6)

Table 5. Codes Included under the Theme of 'Accountability Intensity'

5- Accountability Intensity
Accountability intensity [f]
Pressures do not force me [12]
Demands sometimes conflict with each other [5]
Parent demands conflict with the regulations [4]
Some demands do not comply with ethical principles [4]
I find it difficult to meet parent demands [3]
Different demands come from different sources [3]
I am constantly trying to justify my decisions [2]
I sometimes take the initiative even if it does not comply with the legislation [2]
Some parent requests make us nervous [2]
Families shift their responsibilities to school [2]
Audit sometimes turns into a puposeful search for my mistake [1]

Other impacts of total accountability environments

Table 6 summarizes the principal observations on the total impact of all school accountability relationships on schools, teachers, parents and students, respectively. Principals state that there are other school-, teacher-, parent-specific and student-specific influences on surrounding accountability environments in addition to those principal-specific impacts.

Among the most frequent accountability impacts on schools are improvement of school transparency (5) and performance (3), maintaining order (3) and peace (2) at schools, improving school climate (2) and school culture (2) and also cultivate democracy culture (2) at schools. Some participant principals stated as below:

"[…] it increases the willingness and performance of my fellow teachers who will take part in various academic activities […] increases the number of social and cultural activities and the number of participants in our school." (P1)

"[…] we also evaluate our teachers. We assess student achievements and evaluate student and class achievements. It's like this. So what can be done to increase it? Many measures can be taken at work, such as homework, more lectures, course repetitions, practice exams or one-on-one lessons. Then, we assess students and compare them and compare to other school achievements. Accordingly, we understand how well our measures work or not." (P5)

The most frequent accountability impact on teachers is the raise in teacher responsibility (5), improvement in teacher collaboration between teachers and administration (4), increased performance (2), and school reputation (1). Below is an example from the principal responses:

"Account giving and making justifications also play an active role in the creation of an environment of trust. Teachers who are used to this feel more belonging to the institution they work because they know that their own opinions will be taken in future decisions and that even if they are not taken, the decisions will be conveyed to them with their justifications. The feeling of self-confidence grows, even more, to be better and more productive." (P1)

Principals also state that accountability environments have impacts on parents, too. The most frequent ones among them are the increase in parents' trust (3) and support (2) for school. Others are the raise in parents' commitment (1), recognition of school values and norms (1), increase in parents-school communication (1), and parents' participation in decision-making (1). One of the participant principals stated as below:

"For example, if parent-teacher association invoices and documents its expenses, and the way they spent, and shares with its stakeholders in a transparent environment, both the trust and support to the school increase. In such a case, parents will be more behind the school and will support the school both financially and emotionally at school activities." (P15)

Principals report that an accountability environment leads schools to involve students in decision-making and increase student discipline (1), and students' commitment to school (1). A principal stated that:

"Students and parents also feel a sense of confidence in the school. They feel safer in this institution, and even more, so do their children. They have a sense of belonging." (P1)

Table 6. Sub-themes and Codes Included under the Theme of 'Other Impacts of Total Accountability Environments'

4. Total Impacts of Accountability Environments	
On teachers [f]	**On parents [f]**
Help teachers act more responsibly [5]	Increase parents' trust in school [3]
Increse teacher collaboration with school administration [4]	Increase parents' support for the school [2]
	Increase parents' commitment to school [1]
Increase teacher performance [3]	
Increase teacher participation in decisions [2]	Raise parent awareness of school values and norms [1]
Raise teacher awareness about school goals [2]	Increase teacher commuication with school [1]
Increase teacher self-assessment [2]	Involve parents in decisions [1]
Help teachers adopt an acceptable behavior [2]	
Increase teacher compliance with regulations [1]	
Increase teacher awerness of school norms and values [1]	
Create stress in teachers [1]	
Supervision out of purpose wears out teachers [1]	
Punishment for minor mistakes makes the teacher unhappy [1]	

Table 6. (continued) Sub-themes and Codes Included under the Theme of 'Other Impacts of Total Accountability Environmets'

4. Total Impacts of Accountability Environments	
On students [f]	**On School [f]**
Increase student discipline [1]	Make the school transparent [5]
Increase students' commitment to school [1]	Maintain order in school [3]
Involve students in decisions [1]	Improve school performance [3]
	Provide peace at school [2]
	Improve the school climate [2]
	Develop a culture of democracy [2]
	Improve school culture [2]
	Provide unity at school [1]
	Develop morality at school [1]
	Increase motivation at school [1]
	Increase social and cultural school activities [1]
	Increase school reputation [1]
	Improve the school [1]
	Lead to school comparisons of student success [1]
	Lead to evaluate school proceses [1]

Conclusion, Discussions and Implications

This study, which aims to explore school principals' accountability environment in Turkey, reveals that school principals are in formal and informal accountability relations with bureaucracy, parents and professional units. As the foremost of these relations, bureaucratic accountability includes formal or informal expectations of senior management (provincial or district directors of National Education, branch managers, district governorships, governorships, and ministry units) and inspection units (education inspectors) on school principals regarding both school processes and school results, such as monitoring activities and asking reports and justifications. The most frequent foci of this relationship are compliance with the regulations and ethical principles, stakeholders' well-being and satisfaction, school results, school climate and school expenditures. Senior management or education inspectors request pieces of evidence from schools such as information, statistics, reports, or documents related to the teachers' board and the group teachers' board meetings, to prove whether the school activities comply with the educational regulations. School-related information is mostly quantitative and consists of numbers for the physical and psychological health of learning environments, student and parent satisfaction, physical structure and academic achievement (university placement rates, etc.), number of books read, number of social activities, and project applications. In addition, schools are expected to prepare a four-year strategic plan, which includes setting strategic goals, creating a work plan, evaluating the improvement, and reporting the results to senior management. It is stated that bureaucratic relationships have strong effects, especially on school principals. Principals report that the bureaucratic expectations provide guidance for themselves about what they need to do and feedback on what they do, thus facilitating their work and increasing their motivation, helping them behave following the regulations and ethical rules, making them feel safe and more reliable and transparent while a few school principals report bureaucratic accountability pressures cause fear and stress.

These results are largely in line with the results of other studies conducted in Turkey. Erdağ (2013) and Kardaş (2016) stated that they do not think that schools are held responsible for their academic success towards their senior management units and that there is no academic success-oriented accountability relationship between the school and senior management; Yıldırım and Yenipınar (2019), on the other hand, report that school principals have the highest demand for accountability in terms of the school physical structure and the regulations, and there is no expectation for the quality of education. Instead, schools think that, with formal or informal interactions, senior management expects them to fulfil the provisions of the legislation, not to cause parent complaints and to ensure parent satisfaction (Kardaş, 2016). Additionally, Engin (2013) reports that senior management and inspection units focus on schools' compliance with regulations and ethical codes, and school principals are requested for reporting regarding school processes and outcomes under some school improvement programs such as Strategic Planning, Total Quality Management, School Development and Management Teams, and Primary Education Standards, while some principals report that they are not implemented properly in practice and related reports are even fake, provided no feedback, and its availability but not functionality is questioned, they yet have functionality in terms of guiding school principals. When evaluated as it is in the accountability relationships with the schools, the senior management units seem "not having any expectation for academic success, and not having an agenda for school quality improvement, sending direct and indirect messages saying no expectation for student success, even lowering their expectations for high standards of student achievement" (Kardaş, 2016). Instead, the central government, which contends having the necessary educational knowledge, expects schools to rationally obey and act following the processes, rules and legislative provisions set for the schools. As Kardaş (2016) states, the pressure for compliance with the centrally-set regulations on the schools seems to make school principals turn their attention and efforts away to management issues from teaching, the technical essence of education. Therefore, school principals consider themselves responsible for technical regulations regarding school processes and fulfilment of administrative duties, and leave the academic field to the responsibility of teachers (Kardaş, 2016). After all, failure to monitor and produce information regarding school processes and results, messages that ignore student achievement, and not providing feedback and support to schools mean the loss of opportunities for change and transformation for the school.

The second is professional accountability relations, and it includes the teachers' and teacher unions' expectations and demands created on issues at schools such as the compliance of school decisions and practices with the government regulations, and the protection of teacher and student rights and well-being. It is understood that these relations lead school principals to be responsive to teachers, and become more caring for teachers, be open to teacher feedback on their decisions and practices, allow teachers to participate in decision-making. Argon (2015) reports that school principals make great efforts to be accountable to their superiors for compliance with the regulations, while they do not care much about being accountable to school stakeholders, so teachers expect school principals to be accountable to them, to make decisions and act following government regulations, and expect a fair, honest, democratic, transparent, participatory, collaborative, and innovative work environment. On the other hand, Güçlü & Kılınç (2011) and Özken (2020) found that primary school administrators are not prone to be supportive of teachers, provide feedback, face and accept reality and take responsibility, care for teacher well-being and transparency, participate in decision-making, and disseminate information. On the other hand, Atar (2018) reports that pre-school principals are transparent and honest in their relations with teachers, justify their decisions and keep them informed about those decisions, ask them for their feedback. Likewise, Özken (2020) states that an accountable school principal contributes positively to the school climate, to both teachers' and students' commitment to school, and builds trust at school while those principals who make decisions alone and refuse criticism force teachers to their obedience, weaken and devalue teachers, alienate them from the profession and even force them to leave.

The third is market accountability relationships. It includes parents' expectations of information about and practices related to social, cultural and educational activities at schools, student achievements, student well-being and safety, school outcomes, and disciplinary issues. Parents monitor school processes and outcomes through formal relations established as specified in the legislation, and in this context, they request information about school expenditures, school decisions and practices regarding teaching and learning, and students' academic achievements, especially at parent meetings and parent-teacher association board meetings. These results are supported by other studies in Turkey. Kardaş (2016) points out that Turkish schools are under the control of "an implicit market-based accountability structure", and that they can directly exert strong pressure on schools through the formal complaint mechanisms they have and the extra responsibilities they undertake within the schools, therefore, the focus of the accountability relationship between the school and the senior management turns into parent satisfaction. In addition, senior management can often make very harsh legal interventions because they are afraid of political pressures, based on the information carried by parents, who are also seen as political voters (Kardaş, 2016). Therefore, not only school principals but also senior management units are very sensitive to parents' complaints (Yağ, 2019), and school principals mostly make an effort to be responsible for, open and responsive to parents (Fırat, 2015), and they feel accountable to parents mostly for student achievements (Çalmaşur, 2019). School principals, who feel responsible to parents and care about their satisfaction, attach great importance to their feedback and make academic interventions to please parents (Kardaş, 2016). Because school principals know that parent satisfaction is an important tool that will ensure the survival of the school and prevent investigations from the senior management (Kardaş, 2016). In this sense, it is of great importance for the school principal's safety and well-being to respond to the academic, social, cultural, and financial demands from parents, who are strengthened by the complaint mechanisms.

Fourth, principal interviews revealed that they are not challenged by different accountability relationships, and the total pressure they feel is not intense and overwhelming. For example, Argon (2015) points out that official inspections of school principals are quite inadequate, and expectations for academic success from senior management are also quite low (Erdağ, 2013; Kardaş, 2016). At the same time, school principals are reported to be stuck between the demands of teachers and senior management units, in other words, they experience dilemmas between education and management, and they are obliged to fulfil administrative demands despite being contrary to their educator identities (Kardaş, 2016; Özken, 2020).

On the other hand, the participating school principals state that principals' accountability environment produces positive and negative effects not only on themselves but also on the school, teachers, students and parents. First of all, it is stated that there are radical changes in school processes under the influence of accountability relationships. School principals who think they are accountable report that schools turn into a more successful, popular, transparent, orderly and peaceful learning environment where warm and collaborative relations in a democratic culture prevail, and various rich school learning and assessment activities are carried out. Argon (2015) points out that principal accountability creates an atmosphere of trust at school, transforms the school into a peaceful, sincere and democratic, transparent, participatory and collaborative environment, and increases motivation, teaching and learning. According to Himmetoglu et al. (2017), school principals believe that an accountable school will become a popular place due to its orderly and effective learning environment built on various feedback inputs.

In addition to these, school principals state that there are some changes in teachers as well. Principal interviews revealed that teachers share school values, act more responsibly, participate in decisions, collaborate with school administration, self-evaluate, and comply with regulations. Özgan (2011) reports that a transparent school administration increases school teachers' trust, commitment to school, cooperation, motivation and performance, and job satisfaction. In their study on accountability practices in Texas, Skrla et al. (2001) found that teachers had high expectations of success due to accountability, and for this reason, they tended to cooperate more with other teachers by working in teams.

Similarly, school principals argue that in this context, parents also develop feelings of trust and dedication, adopt the values of the school more, increase their communication with the school, become more participative in school decisions and give more support to the school. Such an environment surrounded by various expectations also connects students to school more.

To conclude, Turkish school principals have a strong accountability relationship with bureaucracy compared to those with parents and teachers. While the senior management and inspection units closely monitor the school principals in their decisions and practices for compliance with regulations and school outcomes, their expectations of student achievements, shareholders' well-being and satisfaction remain very low. On the other hand, while parent expectations from the principal focus on educational activities, student success, and student safety and well-being, the focus of professional expectations is only on compliance with regulations and defending personal rights in principal decisions and practices. As Kardaş (2016) points out, this situation directs the attention and actions of schools and educators away from teaching and learning activities, distances them away from the essence of education, avoids taking responsibility and risks for instruction, and going beyond the regulations, leads them staying in a safe area, and poisons the school culture. A bureaucratic accountability environment therefore physically and mentally isolates educators from instruction and abandons the control of instruction and student achievements to parents' and teachers' conscience.

There is a need for a more detailed examination of the accountability relations of schools located in different contexts with certain characteristics, and to reveal the associations between these relations and effective school factors. In particular, revealing the correlation between the quality of the school-specific accountability relationship and the school's social, technical and human capacity is of great importance in creating effective learning environments in schools. In this sense, the relationship between the school and the bureaucracy, parents, and members of the profession should be described in more detail depending on the school context. There is a need for studies and observations that will reveal how accountability relations are established in the education legislation that determines the structure and behaviour in schools.

The accountability environment framework presents a new approach to solving the quality problem at schools. This approach argues that the source of the current quality problem in education is government, and it separates management from learning through educational regulations, and formal or informal expectations, and shifts the entire focus from learning to management. Therefore, schools cannot touch the essence of education. So the solution is to fix this corruption. The responsibility of policymakers should be to renew the regulation that will focus the attention and effort of stakeholders on academic success and its founding elements. Inspection should also be responsible for guiding schools and supporting principals and teachers in seeking solutions for instructional issues and modelling an effective learning environment, as Sadrettin Celal Antel stated a hundred years ago (Karagöz, 2018).

School principals, senior management units and inspectors can contribute to schools' social, technical and human capacity and produce improvement in schools by establishing healthy and effective accountability relationships with bureaucracy, parents and teachers.

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RESEARCH ARTICLE

Investigation of the Reading Motivations of Preschool Children: A Multiple Regression Study

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Abstract

The study primarily aimed to examine how the reading beliefs and home literacy environments predict the child's early reading motivation. The sub-objective of this study was determined as to whether this prediction differed according to the educational level of the mother, the time the child allocated for reading in a day, and the time the child read during the day. In the first stage stratified sampling was used and, in the second stage, the purposive sampling method was used. The sample group of the study consisted of 556 parents who had children between the age of 36-72 months and whose children enrolled preschool education. Personal Information Form, Parent Reading Belief Scale, Home Literacy Environment Scale, and Perceived Motivation Scale for Reading Picture Story Books for Children were used as data collection tools. The obtained data were analyzed by using the multiple regression analysis methods. According to the results, it was seen that the parent reading belief and home literacy environment predicted the child's reading motivation. Also, this prediction differed according to the education of the mother, the time the child allocated for reading in a day, and the time the child read during the day. The results obtained have the potential to guide preschool parents, teachers, and field experts.

Key Words: *Reading Motivation, Parent Reading Belief, Home Literacy Environment, Mother Education Level, Reading Frequency.*

Öz

Araştırmanın temel amacı; 36-72 ay çocuğa sahip olan ailelerin okuma inançları ve ev okuryazarlık ortamlarının çocuğun erken dönem okuma motivasyonunu yordayıcılığının incelenmesidir. Bu yordayıcılığın anne eğitimine, çocuğun bir günde kitap okumaya ayırdığı süreye, çocuğa gün içerisinde okuma yapılan süreye göre farklılık gösterip göstermediği araştırmanın alt amacı olarak belirlenmiştir. Örneklem belirleme sürecinin ilk aşamasında tabakalı örnekleme ikinci aşamada amaçsal örnekleme yöntemine başvurulmuştur. 36-72 ay aralığında çocuğa sahip olan ve çocuğu okul öncesi eğitime devam eden 556 ebeveyn çalışmanın örneklem grubunu oluşturmaktadır. Kişisel Bilgi Formu, Ebeveyn Okuma İnancı Ölçeği, Ev Okuryazarlık Ortamı Ölçeği ve Çocuklar İçin Resimli Öykü Kitabı Okumaya Yönelik Algılanan Motivasyon Ölçeği veri toplama aracı olarak kullanılmıştır. Elde dilen veriler çoklu regresyon analizi ile çözümlenmiştir. Analiz sonuçlarına göre ebeveyn okuma inancı ve ev okuryazarlık ortamı çocuğun okuma motivasyonunu yordamaktadır. Bu yordayıcılık anne eğitimine, çocuğun bir günde kitap okumaya ayırdığı süreye, çocuğa gün içerisinde okuma yapılan süreye göre değişmektedir. Elde edilen sonuçlar okul öncesi dönem ebeveynleri, öğretmenleri ve alan uzmanlarına rehberlik edecek niteliktedir.

Anahtar Kelimeler: *Okuma Motivasyonu, Aile Okuma Inancı, Ev Okuryazarlık Ortamı, Anne Eğitim Düzeyi, Okuma Sıklığı.*

Introduction

Reading is a one of the important survival skills to participate and adjust in todays' literate societies (Nutbeam, 2008; Plomp, 2013). In the digital age, both the workplace and everyday technological devices require a complex as well as broad range of literacy skills (Bawden, 2001; Liu, 2005; Tyner, 2014). In addition to these, raising literate citizens is one of the ultimate goal of education all around the world (United Nations Educational, Scientific and Cultural Organization, [UNESCO], 2009). Reading enables to obtain, construct, and make things (Allen, 2012). All these reasons lead scientists to research reading skills and process.

In the developing and changing world, all kinds of experiences and achievements acquired by children at an early age appear in the later stages of their lives and, thanks to these experiences, a new generation, which is more willing to acquire new knowledge and skills, emerges. The desire and innate drive to acquire new skills can be defined as motivation. The Turkish Language Association (TDK,2022) defines motivation as the internal and environmental driving force created by the incentive to do and succeed in a job. It can be claimed that motivation is a factor that affects the duration, process, and output of the work performed by the individuals.

Reading motivation refers to the individual's values, beliefs, and goals related to the process of reading, the subjects it contains, and its outputs (Guthrie & Wigfield, 2000). It is considered that children's early reading skills, attitudes, reading motivations in early period of life is directly related to their reading skills and academic success in the following years. (Areepattamannil & Freeman, 2008; Gottfried et.all., 2007; Purcell-Gates, 1996; Haden, Reese, & Fivursh, 1996; Senechal & LeFevere, 2002). Children's reading motivations are also directly related to the resources presented to them (Neuman, 1999; Neuman & Celano, 2001). It is primarily parents who present these resources to children. It can be argued that the diversity of resources offered to children is also related to the parent reading belief. Reading belief refers to the behaviors of the family towards the language acquisition processes of the children (Weigel, Martin, & Bennett, 2006b). There is a strong correlation between parents' reading beliefs and children's reading behaviors (DeBaryshe, 1995; Rodriguez and Lemonda, 2014; Teng, Hackett and Draheim, 2017; Krijnen, et.all., 2021) The correlation between these two variables can be explained theoretically with Bronfenbrenner's ecological theory. According to the ecological theory, relationship between systems can be reciprocal (Bronfenbrenner, 1998). Considering the relationships between parent reading belief and child reading motivation, it can be concluded that the family's behavior and beliefs affect the child. In return, the child's behavior and motivation affect the family. Another variable which is directly related to z and y is the home literacy environment. The home literacy environment is affected by variables such as family characteristics, educational level, socioeconomic level, and reading belief (Niklas, 2015; Niklas & Schneider, 2013). The child first experiences early reading skills are developed in the home environment (Purcell-Gates, 1996). Therefore, the opportunities offered to the child in the home environment are significant in terms of the subsequent literacy skills of the child. The studies show that the early experiences of children regarding early literacy skills have a positive effect on the school participation and academic success rate in the following years (Sylva et al., 2004; Purcell-Gates, 1996; Haden, Reese, & Fivursh, 1996). In addition to this, the studies emphasize that the effect of the child's intrinsic reading motivation on early reading experiences is high and reveal that the early literacy experiences offered by the family to the child have a high effect on predicting the child's attitude towards reading (Battleson, 2002; Weigel, Martin & Bennett, 2006a; Guthrie & Wigfield, 2017).

Based on the results of the studies (Baker ve Scher, 2002; Mata, 2011; Deitcher, Aram & Itzkovich, 2021), it is seen that the parent reading belief and home literacy environment have a significant place on the child's reading motivation. The characteristics, educational level, immigration status, and income level of the family affect the family's reading belief and parent reading belief have an active role in determining the characteristics, quality, and possibilities of the home environment offered to the child. When the studies conducted in Turkey were reviewed, it was concluded that the number of studies examining these three variables together was very few. In addition to this, two of the related variables were considered in the studies which were carried out in Turkey. Moreover, the sample group of the studies consists of primary and secondary school students not preschoolers (Öztürk, İleri Aydemir, 2012; Gönen, Çelebi Öncü ve Işıtan, 2004; Gök, 2019; . Therefore, it was considered that this study would contribute to the literature and would shed light on the studies to be carried out in the future. Hence, this study investigated the correlation between parent reading belief and home literacy environment and the child's reading motivation.

This study primarily aims to examine how the reading beliefs of families with 36-72 months old children and home literacy environments predict the child's early reading motivation. In this regard, the following questions were formed:

1. Do parent reading beliefs and home literacy environment predict the child's reading motivation?
2. Does this prediction differ according to the (a) educational level of the mother, (b) the time the child allocated for reading in a day, and (c) the time the child read during the day.?

Method

Research Model

A correlational study model was used in this study. According to Fraenkel, Wallen, and Hyun (2009), correlational studies aimed at determining the correlation between two or more variables and the existence or co-variation degree of these variables. The predicted variable of this study was the reading motivation of 36-72 months old children. The predictor variables were parent reading belief and home literacy environment.

Population and Sample Group

The population of this study consisted of parents who had 36-72 months old children attending preschool education in Turkey. In the first stage of the sampling process, stratified sampling was used, and, in the second stage, the purposive sampling method was used. In the stratified sampling method, the universe was divided into subgroups. While creating subgroups, Statistical Region Units Classification was used. Classification of Statistical Regional Units has emerged from the necessity of classifying 81 provinces in terms of regional socio-economic analysis, shaping regional policies and creating a database suitable for the European Union Regional Statistical System, according to the decree published in the Official Gazette dated 28.08.2002 and numbered 2002/4720. Thus, it was ensured that each subgroup in the population was represented equally. With this sampling method, each city had an equal chance of being selected. In the purposive sampling method, data were collected from parents meeting the criteria determined for this study. The criteria can been in Table 1 (Fraenkel and Wallen, 2009).

Table 1. Inclusion and Exclusion Criteria for Parents

Criteria	Inclusion	Exlucion
City	Adana, Sakarya, Van, Mardin, İzmir, İstanbul, Balıkesir, Sivas, Trabzon, Erzincan, Amasya, Ankara	Parents living in provinces outside the cities included in the inclusion criteria
Children's Age	Parents with children between 36—72 months	Parents who do not have children between 36-72 months
Preschool Education Continuation Status	Parents whose child is enrolled in a preschool education institution	Parents whose child is not enrolled in a preschool education institution

The distribution of the parents constituting the sample group of this study by gender and income level was presented in Table 2. A total of 556 parents participated in the study.

Table 2. The distribution of parents by gender and income level

	Income	1000 ₺ and less	1001 ₺-3000 ₺	3001 ₺-5000 ₺	5001 ₺-7000 ₺	7001₺-8000 ₺	8001 ₺ and above	Total
Mother	Frequency	13	72	79	93	37	112	406
	Percentage	65.0%	69.9%	67.5%	72.7%	71.2%	82.4%	73.0%
Father	Frequency	7	31	38	35	15	24	150
	Percentage	35.0%	30.1%	32.5%	27.3%	28.8%	17.6%	27.0%
Total	Frequency	20	103	117	128	52	136	556
	Percentage	100%	100%	100%	100%	100%	100%	100%

Based on the information in Table 2, it was concluded that 406 (73%) of the parents who filled out the scale form were the mother of the child and 150 (27%) were the father of the child. Considering the income level of the families, 20 of the families (3.6%) had an income of 1000 Turkish Liras or less, 103 of the families (18.5%) had an income between 1001-3000, 117 of the families (21.0%) had had an income of 3001-5000, 128 of the families (23.0%) had an income of 5001-7000, 52 of the families (9.4%) had an income between 7001-8000, and 136 of the families (24.5%) had an income of 8001 and above.

Data Collection Tools

Personal Information Form, Parent Reading Belief Scale, Home Literacy Environment Scale, and Perceived Motivation Scale for Reading Picture Story Books for Children were used as data collection tools for this study.

1-Personal Information Form: The personal information form prepared by the researchers consisted of questions about the children in the study group, such as their gender, date of birth, mother's educational background, and the time the child read during the day.

2-Parental Reading Belief Scale: Parent Reading Belief Scale, originally called Parent Reading Belief Inventory (PRBI), was developed by DeBaryshe and Binder in 1994 and was finalized in 2018 by Iflazoglu Saban, Altınkamış, and Deretarla Gul. This scale aims at determining the beliefs of parents about the reading activities they perform with their children and it is a four-point Likert-type scale consisting of 7 sub-dimensions and 39 items. In this scale, the options vary from "strongly disagree" to "strongly agree". "Strongly disagree" corresponds to 1 point and "strongly agree" corresponds to 4 points. There are reverse-scored items on this scale. The Cronbach alpha value of the scale is .79.

3- Home Literacy Environment Scale (HLEQ): This scale was developed by Marjanovic Umek, Podlesek, and Fekonja in 2005 to determine the quality of the home literacy environment and was adapted into Turkish by Altun in 2013. This scale, which consists of 32 items and 5 sub-dimensions, is completed by the parents. The Cronbach Alpha coefficient, which was .91 in the original form of the scale, was found to be .89 in the Turkish version. There are no reverse-scored items on this scale.

4-Children's Perceived Motivation in Storybook Reading Scale (CPMSR): This scale was developed by Saçkes, Işıtan, Avci, and Justice in 2016. This scale aims at determining how parents perceive their motivation for reading in the reading experiences of children at home with their parents. CPMSR is a five-point Likert-type scale consisting of 19 items and 4 sub-dimensions and is completed by the parents. The Cronbach alpha value of the scale is .84. There are no reverse-scored items on this scale.

Validity

To investigate the theoretical structure of all the scales and test the construct validity of the scales in the study group of this study, Confirmatory Factor Analysis (CFA) was performed first (Brown, 2015). According to Kaiser-Meyer-Olkin (KMO) and Bartlett tests (KMO_{COYAM}=0.93, p<0.01; KMO_{AOI}=0.91, p<0.01; KMO_{EO}=0.90, p<0.01), it was concluded that the data sets were suitable for factor analysis and sample sizes were sufficient. In addition to this, the extreme value (Z score, Mahalanobis), linearity, normality, and multicollinearity were tested for the three scales used in this study, and it was determined that these requirements were met significantly (George & Mallery, 2016; Hair, Anderson, Tatham, & Black, 1998). As a result of the analyzes performed, the standardized regression coefficient (factor loads) of one item from the Parent Reading Belief Scale (PRBI) was found to be smaller than the acceptable value (0.30). Therefore, the relevant item was removed from the scale and the analyzes were repeated (Tabachnick ve Fidel, 2013). In the established models, modifications were made between the items whose error variances were related. The model-data fit indexes obtained as a result of the CFAs were presented in Table 3.

Table 3. Model-Data Fit Indexes

	χ^2/sd	RMSEA	SRMR	CFI	NNFI	NFI	GFI
CPMSR	2.65	0.055	0.053	0.98	0.98	0.97	0.91
PRBI	3.21	0.063	0.077	0.94	0.91	0.93	0.80
HLEQ	4.12	0.075	0.074	0.95	0.94	0.93	0.80
Perfect Fit Values	$0 \leq \chi 2/sd \leq 2$	$0.00 \leq$ RMSEA ≤ 0.05	$0.00 \leq$ SRMR ≤ 0.05	$.97 \leq$ CFI ≤ 1.00	$.97 \leq$ NNFI ≤ 1.00	$.95 \leq$ NFI ≤ 1.00	$.95 \leq$ GFI ≤ 1.00
Acceptable Fit Values	$2 < \chi 2/sd \leq 5$	$0.05 <$ RMSEA ≤ 0.08	$0.05 <$ SRMR ≤ 0.10	$.90 \leq$ CFI $< .97$	$.95 \leq$ NNFI $< .97$	$.90 \leq$ NFI $< .95$	$.80 \leq$ GFI $< .95$

As seen in Table 3, the most used fit indexes ($\chi 2/sd$, RMSEA, SRMR, CFI, NNFI, NFI, and GFI) in the literature were evaluated to investigate the compatibility of the theoretical structures with the data collected from the sample group (Iacobucci, 2010). Based on these fit indexes, $\chi 2/sd$, RMSEA, and SRMR values were found acceptable for all three scales. The CFI index revealed an excellent fit for the CPMSR index and an acceptable fit for PRBI and HLEQ indexes. NNFI and NFI indexes, on the other hand, revealed an excellent fit for the CPMSR index and an acceptable for AOI and EOO indexes. Finally, the GFI index revealed an acceptable fit for CPMSR, PRBI, and HLEQ indexes (Forza and Filippini, 1998; Marsh, Hau, Artelt, Baumert, and Peschar, 2006; Schermelleh-Engel, K., Moosbrugger, H., and Müller, H. (2003).

Reliability

The Cronbach Alpha reliability coefficient of the scales used in this study was calculated and found to be 0.89 for the Parent Reading Belief Scale and 0.92 for the Home Literacy Environment Scale and CPMSR. These coefficients demonstrated that the total scores of the scales were highly reliable. In addition to this, considering the sub-dimensions of the scales, it was concluded that Cronbach Alpha coefficients were generally higher than 0.60, except for the dimensions with a small number of items (Thorndike and Thorndike-Christ, 2010). Therefore, Cronbach Alpha coefficients were considered to be reliable (George and Mallery, 2016).

Prediction Model

In this prediction model, analyzes were performed using multiple linear regression. CPMSR (Children's Perceived Motivation in Storybook Reading Scale) was determined as the predicted variable while parent reading belief and home literacy environment were determined as the predictive variables. First, analyzes were carried out on the data obtained from the entire study group. Then, multiple linear regressions were performed in separate groups according to the number of children's picture books at home, the educational level of the child's mother, the time the parents allocate for reading books, the time the child allocates for self-examining the picture books, and the time the family allocates to reading a book for the child in a day. Within the scope of this study, the predictiveness differences at the level of subgroups were evaluated descriptively.

Before proceeding with the analyses, the data set was first investigated in terms of multiple linear regression analysis assumptions (outlier, normality, linearity, and multicollinearity). Z scores were calculated for the total scores regarding the predicted and predictive variables in the data set with no missing data. It was determined that there were no values other than the -3 and +3 standard values. In addition to these, according to the calculated Mahalanobis distances, it was concluded that there were no outliers in the data set (Field, 2009; Green and Salkind, 2005). The distributions of the total scores calculated for the predicted and predictive variables were presented in Table 4.

Table 4. Descriptive Statistics

Variables	Skewness	Standard Error of Skewness	Kurtosis	Standard Error of Kurtosis	$\bar{X}$	Mode	Median
Child's Motivation	-0,544	0,104	0,176	0,207	67,960	74.00	70.00
Parent Reading Belief	-0,189	0,104	-0,028	0,207	119,426	110.00	119.00
Home Literacy Environment	-0,368	0,104	0,096	0,207	139,176	127.00	140.00

As seen in Table 4, mean, mode, and median values were close to each other, and the skewness-kurtosis coefficients were found to be in the range of +1 to -1. In addition to this, it was also determined that the total scores demonstrated normal distribution in different subgroups. Thus, it was concluded that the total scores of predicted and predictive variables in both the whole group and subgroups demonstrated a normal distribution (George and Mallery, 2016).

To investigate the linearity of the variables, scatter diagrams were created for standardized residual values and standardized predicted values. As a result, it was determined that the points generally gathered around an axis. To evaluate whether there was multicollinearity between the predictor variables, tolerance values (Tol), variance increase factors (VIF), and status indexes (CI) were examined. Tolerance values, variance increase factors, and status indexes of parent reading belief and home literacy environment total scores were found to be 0.624, 0.624, 1.604, 1.604, 15.136, and 27.795, respectively. If the tolerance value (1-R2) is higher than .20, the variance increase factor (VIF) is lower than 10, or the status index (CI) value is lower than 30, it can be considered that there is no multicollinearity problem. In addition to these, the Durbin Watson coefficient was evaluated to test autocorrelation. This coefficient shows the dependence of the errors and values close to 2 reveals that there is no autocorrelation. The Durbin Watson coefficient calculated within the scope of this study was found to be 1.65, and it was concluded that there was no autocorrelation (Field, 2009; Hair, Anderson, Tatham, and Black, 1998).

Data Analysis

Findings

In this section, the results of the analysis were presented. The first research question was as follows: Do parent reading beliefs and home literacy environment together predict the child's reading motivation? The results of the multiple linear regression analysis were presented in Table 5.

Table 5. Multiple Regression Analysis Results for Predicting CPMSR

	B	Standard Error	β	t	p
Constant	-15,840	3,741		-4,234	0,000
Parent Reading Belief	0,421	0,039	0,391	10,672	0,000
Home Literacy Environment	0,241	0,021	0,425	11,617	0,000

R=.733, R^2=.538, $F_{(2, 555)}$=321.478, p=.000

As seen in Table 5, as a result of the multiple linear regression analysis conducted to reveal how variables such as parent reading belief and home reading environment, which were considered to have an effect on children's perceived motivation to read picture storybooks, predicted children's reading motivation, it was concluded that parents' reading belief and home literacy environment variables were a significant predictor of CPMSR. Together, these two variables explained 54% of the change in children's perceived motivation to read picture storybooks (R=0.733, R^2=0.538, $F_{(2, 555)}$=321.478, p<.05). Considering the significance tests of the regression coefficients of this study, in which both predictor variables were significant predictors of the child's reading motivation, the relative significance order of the predictor variables on the CPMSR was home reading environment (β=0.425) and parent reading belief (β=0.391). The relative significance order of the predictor variables on the CPMSR was home reading environment (=0.425) and parent reading belief (=0.391), based on the significance tests of the regression coefficients in this study, in which both predictor variables were significant predictors of the child's reading motivation. A moderate correlation was seen between CPMSR's parent reading belief (r=0.652) and home reading environment (r=0.665). According to the results of the regression analysis, the regression equation for predicting the reading motivation of the child was presented below:

CPMSR =-15.840+(0.241xHome reading environment) + (0.421xParent reading belief)

In the study, where the predicted variable was CPMSR and the predictor variables were home reading environment and parent reading belief, a 1-unit increase in the home reading environment caused an increase of 0.241 units in the reading motivation of the child and a 1-unit increase in parent reading belief caused an increase of 0.421 unit.

Another sub-objective of this study was as follows: Do parent reading belief and home literacy environment together predict the educational level of the mother, the time the child spends on reading in a day, and the time the child reads in a week? The results of the multiple linear regression analysis were shown in Table 6 to Table 8.

Table 6. Multiple Regression Analysis Results According to Educational Level of the Mother

Variable		B	Standard Error	β	t	p
Primary School Graduate or Less	Constant	-8,982	11,411		-0,787	0,434
	Parent Reading Belief	0,246	0,137	0,208	1,792	0,078
	Home Literacy Environment	0,308	0,065	0,549	4,718	0,000
Middle School Graduate	Constant	-24,292	15,770		-1,540	0,130
	Family's Reading Belief	0,493	0,164	0,384	3,004	0,004
	Home Literacy Environment	0,218	0,082	0,342	2,673	0,010
High School Graduate	Constant	-9,078	7,570		-1,199	0,233
	Family's Reading Belief	0,283	0,095	0,259	2,965	0,004
	Home Literacy Environment	0,310	0,049	0,557	6,382	0,000
College Graduate	Constant	-24,524	11,636		-2,108	0,038
	Family's Reading Belief	0,483	0,097	0,432	4,959	0,000
	Home Literacy Environment	0,248	0,052	0,418	4,796	0,000
Bachelor's Degree	Constant	11,850	6,819		1,738	0,084
	Family's Reading Belief	0,252	0,067	0,268	3,752	0,000
	Home Literacy Environment	0,204	0,032	0,454	6,361	0,000
Master's or Doctorate Degree	Constant	16,378	13,721		1,194	0,238
	Family's Reading Belief	0,262	0,112	0,277	2,334	0,024
	Home Literacy Environment	0,180	0,047	0,460	3,871	0,000

According to Table 6, home literacy environment was a significant predictor of CPMSR ($R=0.709$, $R^2=0.502$, $F_{(2, 72)}=35.313$, $p<.05$) for parents whose mother's educational level was primary school graduate or below while reading belief was not a significant predictor ($p>.05$). It was determined that the home literacy environment explained 50% of the total variance in the child's reading motivation if the mother was not a primary school graduate or literate. Considering the group consisting of primary school graduate or illiterate mothers, a 1-unit increase in home literacy environment scores corresponded to a 0.308-unit increase in the child's reading motivation.

For children whose mothers were middle school graduates, parent reading belief and home literacy environment were significant predictors of CPMSR ($R=0.641$, $R^2=0.411$, $F_{(2, 54)}=18.121$, $p<.05$). It was revealed that parent reading belief and home literacy environment together explained 41% of the total variance in the child's reading motivation if the mother was a middle school graduate. Considering the group consisting of secondary school graduate mothers, a 1-unit increase in home literacy environment scores corresponded to a 0.218-unit increase in the child's reading motivation, and a 1-unit increase in parent reading belief scores corresponded to a 0.493-unit increase in the child's reading motivation.

For children whose mothers were high school graduates, parent reading belief and home literacy environment together were significant predictors of CPMSR ($R=0.768$, $R^2=0.589$, $F_{(2, 120)}=84.625$, $p<.05$). If the mother was a high school graduate, it was discovered that parent reading belief and home literacy environment jointly explained 59 percent of the overall variance in the child's reading motivation. Considering the group consisting of high school graduate mothers, a 1-unit increase in home literacy environment scores corresponded to a 0.310-unit increase in the child's reading motivation, and a 1-unit increase in parent reading belief scores corresponded to a 0.283-unit increase in the child's reading motivation.

For children whose mothers were college graduates, parent reading belief and home literacy environment together were significant predictors of CPMSR ($R=0.697$, $R^2=0.486$, $F_{(2, 79)}=36.440$, $p<.05$). It was determined that parent reading belief and home literacy environment together explained 49% of the total variance in the child's reading motivation if the mother was a college graduate. Considering the group consisting of college graduate mothers, a 1-unit increase in home literacy environment scores corresponded to a 0.248-unit increase in the child's reading motivation, and a 1-unit increase in parent reading belief scores corresponded to a 0.483-unit increase in the child's reading motivation.

For children whose mothers had bachelor's degrees, parent reading belief and home literacy environment together were significant predictors of CPMSR ($R=0.646$, $R^2=0.418$, $F_{(2, 173)}=61.346$, $p<.05$). It was determined that parent reading belief and home literacy environment together explained 42% of the total variance in the child's reading motivation if the mother had a bachelor's degree. Considering the group consisting of mothers with bachelor's degrees, a 1-unit increase in home literacy environment scores corresponded to a 0.204-unit increase in the child's reading motivation, and a 1-unit increase in parent reading belief scores corresponded to a 0.252-unit increase in the child's reading motivation.

For children whose mothers had master's or doctorate degrees, parent reading belief and home literacy environment together were significant predictors of CPMSR ($R=0.610$, $R^2=0.372$, $F_{(2, 52)}=14.810$, $p<.05$). It was determined that parent reading belief and home literacy environment together explained 42% of the total variance in the child's reading motivation if the mother had a master's degree or doctorate. Considering the group consisting of mothers with master's or doctorate degrees, a 1-unit increase in home literacy environment scores corresponded to a 0.180-unit increase in the child's reading motivation, and a 1-unit increase in parent reading belief scores corresponded to a 0.262-unit increase in the child's reading motivation.

How long does your child look at, review, and spend time with picture books by himself/herself a day on average?

Table 7. Multiple Regression Analysis Results According to the Child's Book Reviewing Time

Variable		B	Standard Error	β	t	p
He/she doesn't review	Constant	3,816	27,434		0,139	0,891
	Parent Reading Belief	0,327	0,357	0,264	0,915	0,370
	Home Literacy Environment	0,162	0,158	0,296	1,024	0,317
Less than an hour	Constant	-15,780	4,513		-3,497	0,001
	Parent Reading Belief	0,441	0,047	0,417	9,445	0,000
	Home Literacy Environment	0,226	0,025	0,407	9,216	0,000
1-2 hours	Constant	-21,372	8,743		-2,445	0,016
	Parent Reading Belief	0,446	0,094	0,397	4,761	0,000
	Home Literacy Environment	0,262	0,048	0,456	5,478	0,000
2 hours and more	Constant	-24,708	11,249		-2,196	0,032
	Parent Reading Belief	0,303	0,112	0,278	2,711	0,009
	Home Literacy Environment	0,385	0,069	0,568	5,549	0,000

As seen in Table 7, both home literacy environment and parent reading belief were not significant predictors of CPMSR ($p>.05$) for children who did not spare any time for picture books in a day. For children who spent less than an hour reading a book in a day, parent reading belief and home literacy environment together were significant predictors of CPMSR ($R=0.735$, $R^2=0.540$, $F_{(2, 367)}=214.644$, $p<.05$). It was determined that parent reading belief and home literacy environment together explained 54% of the total variance in the child's reading motivation if the child spent more than an hour reading a book. In this group, a 1-unit increase in home literacy environment scores corresponded to a 0.226-unit increase in the child's reading motivation, and a 1-unit increase in parent reading belief scores corresponded to a 0.441-unit increase in the child's reading motivation.

For children who spent one to two hours reading a book in a day, parent reading belief and home literacy environment together were significant predictors of CPMSR ($R=0.770$, $R^2=0.592$, $F_{(2, 99)}=70.517$, $p<.05$). If a child spent one to two hours reading a book, it was discovered that parent reading belief and home literacy environment together explained 54 percent of the entire variance in the child's reading motivation. In this group, a 1-unit increase in home literacy environment scores corresponded to a 0.262-unit increase in the child's reading motivation, and a 1-unit increase in parent reading belief scores corresponded to a 0.446-unit increase in the child's reading motivation.

For children who spent more than two hours reading a book in a day, parent reading belief and home literacy environment together were significant predictors of CPMSR (R=0.764, R^2=0.583, $F_{(2, 62)}$=41.986, p<.05). It was determined that parent reading belief and home literacy environment together explained 58% of the total variance in the child's reading motivation if the child spent more than two hours reading a book. In this group, a 1-unit increase in home literacy environment scores corresponded to a 0.385-unit increase in the child's reading motivation, and a 1-unit increase in parent reading belief scores corresponded to a 0.303-unit increase in the child's reading motivation.

How long do you or your wife/husband read a book to your child in a week on average?

Table 8. Multiple Regression Analysis Results According to Reading Books to the Child

Variable		B	Standard Error	β	t	p
Never spare time for reading books	Constant	-16,114	17,355		-0,928	0,359
	Parent Reading Belief	0,443	0,221	0,350	2,008	0,052
	Home Literacy Environment	0,207	0,107	0,337	1,938	0,060
Less than an hour	Constant	-11,331	6,842		-1,656	0,100
	Parent Reading Belief	0,427	0,072	0,400	5,886	0,000
	Home Literacy Environment	0,203	0,036	0,379	5,585	0,000
1-2 hours	Constant	-5,259	9,341		-0,563	0,574
	Parent Reading Belief	0,328	0,087	0,278	3,763	0,000
	Home Literacy Environment	0,251	0,039	0,473	6,402	0,000
2 hours and more	Constant	-20,239	6,157		-3,287	0,001
	Parent Reading Belief	0,427	0,060	0,406	7,089	0,000
	Home Literacy Environment	0,266	0,034	0,443	7,733	0,000

As seen in Table 8, both home literacy environment and parent reading belief were not significant predictors of CPMSR (p>.05) for parents who never spare time for reading books to their children in a week. For parents who spent less than an hour reading a book to their children in a week, parent reading belief and home literacy environment together were significant predictors of CPMSR (R=0.698, R^2=0.487, $F_{(2, 177)}$=83.121, p<.05). Considering the parents who spent less than an hour reading to their children, it was determined that parent reading belief and home literacy environment together explained 49% of the total variance in the child's reading motivation. In this group, a 1-unit increase in home literacy environment scores corresponded to a 0.203-unit increase in the child's reading motivation, and a 1-unit increase in parent reading belief scores corresponded to a 0.427-unit increase in the child's reading motivation.

For parents who spent one to two hours reading a book to their children in a week, parent reading belief and home literacy environment together were significant predictors of CPMSR (R=0.653, R^2=0.427, $F_{(2, 138)}$=50.607, p<.05). Considering the parents who spent one to two hours reading a book to their children in a week, it was determined that parent reading belief and home literacy environment together explained 43% of the total variance in the child's reading motivation. In this group, a 1-unit increase in home literacy environment scores corresponded to a 0.251-unit increase in the child's reading motivation, and a 1-unit increase in parent reading belief scores corresponded to a 0.328-unit increase in the child's reading motivation.

For parents who spent more than two hours reading a book to their children in a week, parent reading belief and home literacy environment together were significant predictors of CPMSR (R=0.751, R^2=0.563, $F_{(2, 197)}$=125.841, p<.05). Considering the parents who spent more than two hours reading a book to their children in a week, it was determined that parent reading belief and home literacy environment together explained 56% of the total variance in the child's reading motivation. In this group, a 1-unit increase in home literacy environment scores corresponded to a 0.266-unit increase in the child's reading motivation, and a 1-unit increase in parent reading belief scores corresponded to a 0.427-unit increase in the child's reading motivation.

Discussion and Conclusion

This study addressed children's reading motivation together with parent reading belief and home literacy environment and it was concluded that parent reading belief and home literacy environment significantly predicted the child's reading motivation in general.

The results of this study, which looked at a child's reading motivation as well as family reading belief and home literacy environment, showed that both family reading belief and home literacy environment significantly impacted the child's reading motivation.

There are some factors that affect the parenting skills of parents (Bensky, 1984). The educational level of the mother is one of these factors (Richman, Miller, & LeVine, 1992). The studies conducted in literature so far demonstrated that the educational level of the mother is a predictor of the child's physical and mental skills (Goodall, 2007; Sylva et al., 2004). When the studies on this subject are examined, it can be concluded that the language skills of children who have parents with high educational levels are higher than the language skills of children who have parents with low educational levels (Morrow, 1983; Mantzicopoulos, 1997; Duncan and Brooks, 2000; Dickinson et al., 2003; Skibbe et al., 2008; Sylvia et al.,2011). As a result of this study, for mothers who were primary school graduates and had a lower iteducational level, it was concluded that parent reading belief did not predict children's reading motivation. For mothers with a higher level of education, it was concluded that the regression of parent reading belief and home literacy environment on children's reading motivation increased. This result is in parallel with the results of other scientific studies in the literature. In a study conducted by Bracken and Fischel (2008), parents with higher levels of education stated that their children were more interested in reading. This finding is in parallel with the findings of this study. As a result of another scientific research, it was concluded that the reading beliefs of mothers differed according to their educational levels (Weigel et.all., 2006b; West, Denton and Reaney, 2000; Chiu, 2015). It was found that as the educational level of mothers increased, their belief that their children would improve their language and life skills increased when they read to their children. It was also presented that as the educational level of mothers decreased, mothers had the traditional belief that it was too early to learn something about reading in the preschool period and that this responsibility belonged to the schools (Weigel, et.all., 2006b). In this study, it was concluded that the reading beliefs of mothers who were illiterate or educated at the primary school level did not predict the child's reading motivation. In other words, this situation cannot be observed if the mother has received a secondary school or higher education. In this case, it can be concluded that identifying the illiterate mothers in Turkey and providing them educations in public education centers will directly affect not only the mother's life but also the lives of the children who will build the future of the society.

In line with the results of this study, it can be concluded that parent reading belief and home literacy environment do not predict the child's reading motivation if the child does not spare any time to examine picture books by himself/herself during the day. In other words, parent reading belief and home literacy environment variables do not predict the child's reading motivation if the child does not spend time with books and does not examine his/her books during the day. It was also determined that there were not many studies including the variable of time spent by children with books. The studies in the literature were mostly about where children looked on the page of picture story book during the interactive book reading process (Justice et al., 2008; Evans et al., 2008). However, in related studies, it was emphasized that motivation was related to examining and processing texts individually (Schiefele, 1999). This result can also be explained by Bronfenbrenner's theory of ecological systems. According to this theory, the interactions among systems are possible. In other words, the characteristics of the family affect the child as well as his/her characteristics (Bronfenbrenner, 1998).

In line with the findings obtained, it was determined that the variables of parent reading belief and home literacy environment did not predict the children's reading motivation if parents never spared time for reading books to their children in a week. However, it was also found that the variables of parent reading belief and home literacy environment predicted the children's reading motivation if parents spared 1 or more minutes for reading books to their children in a week. The studies demonstrated that children's reading frequency, parents' attitudes towards reading, children's reading duration, and reading frequency were elements facilitating children's language skills acquisition (Niklas, Cohrssen, & Tayler, 2016b; Niklas et al., 2016). The studies conducted in literature so far also demonstrated the children of parents who enjoyed and had fun while the child was reading had a high motivation to read and enjoyed reading more (Baker, 2002). The *Positive Impact* sub-dimension, one of the sub-dimensions of the parent reading belief scale, is about the participation of parents in the reading process and their experiences in the process. The following item can be shown as an example in this regard: "I enjoy reading with my child". Based on the findings of this specific study, it can be concluded that the home literacy environment and the reading beliefs of parents who enjoy reading and examining picture books with their children predict children's reading motivation.

Recommendations

This study revealed that mothers' literacy levels were important for children's reading motivation. Therefore, providing the basic reading skills for the parents, who live in disadvantaged areas and cannot learn to read and write, with the support of the state will bring about positive changes for the new generation. It is recommended to inform teachers and teacher candidates working in the relevant field and to encourage illiterate mothers to receive education in the public education centers. It was stated that the parents read books to their children if they enjoy reading with their children. The reading motivation predict of parents who never spared time to read books to their children decreased. Therefore, seminars can be organized to inform the parents about interactive book reading. An easy-to-follow and easy-to-read booklet can be prepared. In addition to these, the importance of reading a book to the child in the early period should be explained to the parents long before the child comes to kindergarten. Book kits to be prepared when monitoring the vaccination schedules of children can be handed out to the parents. Opportunities can be provided for the child development experts working in the field to explain the benefits of introducing the child to the book in the early period. In this study, information about the child's reading motivation was obtained from the parents. In subsequent studies, data on children's motivation can be collected directly from children.

Therefore, the fact that the child does not spend time with books during the day may be due to the child's reluctance, while the lack of books at home or the lack of encouragement of the child in this regard may also be the reason why the child does not spend time with books. To examine this issue in-depth, the use of mixed patterns in future studies and supporting the issue with qualitative data will be an important step to close the gap in the literature.

To sum up, parents' motivation to read and literateness affects the children motivation. The education of the parents influences their reading belief which on the other hand influences the childs motivation to read but the education of the parent doesn't matter when the parent doesn't make time for reading to their child.

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RESEARCH ARTICLE

A Study Developing Character Strengths in Managing Anxiety Levels of Individuals in Emerging Adulthood

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Abstract

Character strengths not only increase the well-being of individuals, but also help them to overcome their negative life experiences in a better way. This study aims to increase five-character strengths and at the same time manage anxiety levels of individuals by 13 sessions of a strength-based group psychological counseling program formed by the researchers. 20 individuals aged between 18 and 21 (60% female, 40% male) from various departments participated in the experimental and control group. Data showed a statistically significant decrease in anxiety levels and an increase in the character strengths of zest for life and hope in the experimental group. Using character strengths as a tool may open a novel way for literature and members of different professions by interdisciplinarity to deal with anxiety. Developmental psychologists, psychological counselors, family counselors, members of the profession who work in parenting education, child development specialists, preschool teachers, and school principals may play vital roles in preventing high anxiety levels at an early life phase. Moreover, psychiatrists, clinical psychologists and psychological counselor specialists may help individuals to maintain their well-being and manage their anxiety in an encouraging atmosphere. In this way, psychologically healthier individuals may constitute healthier societies in the long term.

Keywords: *Character Strengths, Anxiety, Group, Therapy.*

Öz

Güçlü yönler, bireylerin sadece iyilik hallerini artırmakla kalmaz, aynı zamanda olumsuz yaşam deneyimleri ile daha iyi baş etmelerine de yardımcı olur. Bu çalışmada, araştırmacılar tarafından oluşturulan 13 oturumlu güçlendirme odaklı grupla psikolojik danışma programı ile beliren yetişkinlik dönemindeki bireylerin beş karakter gücünün geliştirilmesi ve böylece kaygı düzeylerinin azaltılması amaçlanmaktadır. Bu çalışma, çeşitli bölümlerde okuyan 18-21 yaş arasındaki 20 katılımcı (%60 kadın, %40 erkek) ile gerçekleştirilmiştir. Bulgular, bireylerin kaygı düzeylerinde istatistiksel olarak anlamlı bir düşüş ve yaşam sevinci ve umut karakter güçlerinde anlamlı düzeyde bir artış olduğunu ortaya koymaktadır. Karakter güçlerini kaygıyı çalışmada bir araç olarak kullanmak, hem önleyici hem de iyileştirici anlamda çeşitli disiplinler arasında çalışmalara olanak sunmaktadır. Gelişim psikologları, psikolojik danışmanlar, aile danışmanları, aile eğitiminde görev yapan meslek mensupları, çocuk gelişim uzmanları, okul öncesi öğretmenleri, eğitim bilimciler ve okul müdürleri, karakter güçleri konusunda çalışmalar gerçekleştirerek yaşamın erken döneminde kaygı için önleyici hizmet sağlayabilmektedir. Buna ek olarak, psikiyatristler, klinik psikologlar ve uzman psikolojik danışmanlar, karakter güçlerini kendi metodlarında tedavi aracı olarak kullanarak bireylerin yüksek kaygı düzeylerini daha cesaretlendirici bir ortamda çözmelerine yardımcı olabilmektedir. Disiplinler arası çalışmaların bu konuda çeşitlendirilmesi, psikolojik olarak sağlıklı bireylerin bir araya gelerek uzun vadede daha sağlıklı toplumların oluşmasına katkı sağlayabilmektedir.

Anahtar Kelimeler: *Karakter Güçleri, Kaygı, Grup, Terapi.*

Introduction

Individuals have varieties of personal characteristics that lead them to react differently to being exposed to the same experiences. Each person evaluates the situations from his/her point of view according to his/her genetic component, childhood experiences, intellectual and socio-economical level, educational background, temperament and so forth. Recently, one of the most widely studied models explaining individual characteristics upon psychological resources is character strengths and virtues. In this approach, there are 24 valued strengths, organized under six board virtues (Park & Peterson, 2009). The 24-character strengths in the classification include social intelligence, fairness, leadership, citizenship, forgiveness, humility, prudence, self-regulation, appreciation of beauty, gratitude, hope, humor, spirituality, wisdom, courage, humanity, justice, temperance, transcendence, creativity, curiosity, love of learning, open-mindedness, perspective, honesty, bravery, industry, zest, kindness, and love (Kabakçı et al., 2019). There is an important criterion about character strengths and virtues; these should be observable, consistent, measurable, individually different, contributory to individual well-being, valued morally, should be evaluated as important by society, and noticeable from an early age (Park, et al., 2004).

In a more detailed explanation, Niemiec (2013) stated character strengths as protective contributors to an individual's subjective and physical health in different contexts. Mc-Cullough and Synder (2000) explain a character strength or virtue as "any psychological process that consistently enables a person to think and act so as to yield benefits to himself or herself and society". There are some qualities that help scholars and audiences understand better which character strengths and virtues are. Initially, they have trait-like qualities, they are viewed as a person's goal about whom he/she is going to be. Also, they give chance to flexibility; these concepts may develop over time, in this sense it promises hope. In addition to these, they have moral qualities which are positive and prosocial (Worthington & Berry, 2005). Finally, they conclude that everyone has different levels of character strengths and virtues from others. This emphasizes individual differences that support the main principle of psychology.

As stated above, character strengths and virtues help to give a detailed explanation of individuals' emotional and behavioral reactions. These reactions can rely on both positive and negative life experiences. Among the most prevalent negative experiences that individuals have worldwide is anxiety. Due to high levels of anxiety, people have physical illnesses, mentally distorted cognitions, and negative or lack of social life experiences. It relies on the imbalance between contextual demands and psychological resources (Henry & Stephens, 1977). There are varieties of empirical studies on psychological and biological stress-defense mechanisms (Sladek et al., 2016).

Many of these studies pointed out that individual characteristics have a crucial role in psychological resources during anxiety-related experiences. The reason for this is that character serves "as a schema" that explains and processes information toward self, others, and the world (Li et al., 2017). In this sense, it can be thought that the perspective of character strengths and virtues is related to giving explanations about the anxiety individuals experience in daily life. One of the related studies is conducted by Duan et al. (2015). They stated that high character strengths are characterized by an ability to perceive less stress. Also, according to Duan (2016) longitudinal study, students with a high level of character strengths experience less academic-related stress throughout the semester and flourish after experiencing mild depression symptoms. Another retrospective study conducted by Schueller et al. (2015), remarked that character strengths can promote post-traumatic growth after traumatic events.

These studies also show that character strengths and virtues can be utilized as an important resource to enhance people's well-being in a therapeutic environment. At this point, there is a virtues-based therapeutic model; strength-based therapy (SBT) (Wong, 2006). Strength-based therapy is an eclectic model that is composed of many different disciplines such as strengths psychology, social work, positive psychology, counseling psychology, solution-focused therapy, and narrative therapy (Jones-Smith, 2013). Via SBT, not only do individuals reach optimal functioning and human flourishing but also, they overcome their mental health issues. Hence, enhancing the character strengths of individuals to help them to overcome their clinical/non-clinical problems is an optimistic perspective for the current study.

As stated by Jones-Smith (2013), in SBT, the most challenging life experiences include an example that a client uses his/her strength to overcome. The concept of strength is in the client's struggle with the current problem he/she experiences (Smith, 2006). Moreover, SBT does not ignore or minimize diagnosis or diagnostic skills, instead, it emphasizes balance in viewing and treating clients. Hence, it can be found helpful to deal with anxiety via SBT. Basically, SBT concentrates on what is working for the client rather than on what is not working, what clients have rather than what they do not have and emphasizes strengths in a struggle individuals experience (Jones-Smith, 2013).

In SBT, there are 4 phases of psychotherapy which are explicitizing, envisioning, empowering and evolving (Wong, 2006). In a more detailed way, the process of expliciting identifies the individual's existing character strengths. In the envisioning phase, individuals learn how to use the desired level of specific character strength to reach the therapeutic goal. In the empowering phase, to use the desired level of character strength, individuals are motivated to experience this in different areas of their lives. In the last phase, which is an evolving phase, there is an emphasis in the process of growing in character strengths and work on the further growth (Wong, 2006). According to Jones-Smith (2013), phases of SBT are stated in 8 phases in a similar, however more detailed version. These are creating therapeutic alliance, strengths discovery, identifying goals and internal and external barriers to problems and strengths, eliciting group member's hopes and dreams, framing solutions, and formulating a treatment plan for the character strength, building strengths and competence, building a healthy new identity and healthy new connections, and evaluating and terminating.

As stated above, studies and the concept of strength-based therapy show that focusing on the strengths of the individuals and using strengths as a psychological tool in the therapeutic environment may help individuals to resist their negative life experiences. Also, in this way, they have a chance to discover themselves in a positive (and also realistic) way when they try to overcome their problems. This perspective may help individuals to confront their negative thoughts and emotions more easily to act in healthier behaviors. Considering this, the study aims to show that strength-based therapy can both enhance individuals' character strengths and decrease their anxiety levels via group psychological counseling programs designed and initiated by the researchers. Hence, in this study, there are 2 main hypotheses; individuals who participated in a strength-based group psychological program would decrease their anxiety levels (Hypothesis 1) and also increase their character strengths of open-mindedness, perspective, zest for life, self-control and hope (Hypothesis 2).

Research Design

This study aims to analyze the effect of strength-based group psychological counseling program (independent variable) to decrease anxiety levels (dependent variable) of individuals in emerging adulthood. In the study, a true experimental design with pretest-posttest groups was used. Participants were randomly grouped into either an experimental or a control group.

Sample

In order to assign the sample of experimental and control group, 109 university students participated from various departments such as child development, midwifery, audiology, speech and language therapy, social services, health management, nutrition and dietetics, psychology, psychological counseling and guidance, law, political science and international relations, computer engineering, management information systems and pharmacy filled the scales. In the experimental part of the study, which included group psychological counseling sessions, 20 participants who met the necessary criteria were randomly assigned to the experimental and control groups evenly. Demographic characteristics of the experimental and control group are given below (Table 1).

Table 1. Demographic characteristics of the experimental and control group

	Experimental group (n =10)		Control group (n =10)		p
	Mean	Ss	Mean.	Ss	
Age	20.20	0.63	20.30	0.68	0.702
	n	%	n	%	
Gender					
Female	6	60.0	6	60.0	-
Male	4	40.0	4	40.0	
Department					
Computer Engineering	0	0.0	1	10.0	
Child Development	3	30.0	2	20.0	
Law	2	20.0	2	20.0	
Psychology	2	20.0	1	10.0	
Psychological Counseling and Guidance	2	20.0	1	10.0	-
Political Science and International Relations	0	0.0	1	10.0	
Social Services	1	10.0	1	10.0	
Management Information Systems	0	0.0	1	10.0	
Degree					
2nd year	3	30.0	1	10.0	
3rd year	6	60.0	5	50.0	-
4th year	1	10.0	4	40.0	
Place of Living					
Family	9	90.0	8	80.0	
Student' house	1	10.0	1	10.0	-
Others	0	0.0	1	10.0	
Working situation					
Not working	8	80.0	8	80.0	-
Working	2	20.0	2	20.0	
Income Level					
Low	1	10.0	1	10.0	
Middle	8	80.0	9	90.0	-
High	1	10.0	0	0.0	
Experience of Psychological Services					
Yes	4	40.0	4	40.0	0.675
No	6	60.0	6	60.0	

Procedure

The study is conducted by sending the scale forms to the students studying in various faculties and departments of the determined university via the Google Form link, through a general announcement explaining the content and purpose of the study. Participants were randomly assigned to the experimental and control groups by accepting the principle of voluntary participation in group counseling sessions, being between the ages of 18-21, residing in Istanbul, having an anxiety level above the average, and meeting the criteria of being below the upper limit of character strengths and strengths.

In addition, a pre-study structuring session was conducted in which the rules of the group psychological counseling session were explained to the participants, information was obtained on whether the clients had any psychiatric diagnosis. In this way, the question marks of both the counselor and the client were eliminated. Sessions were planned as one session per week for 1.5 hours, making a total of 13 sessions. At the end of the sessions, a retest measurement was applied to the participants in the experimental and control groups with the scales filled in pre-group psychological counseling sessions.

Strength-Based Group Psychological Counseling Program

The content of the program has been built on the approach, methods, and techniques of SBT. Sessions are mainly structured with the aim of developing 5-character strengths that are open-mindedness, perspective, zest for life, self-control, and hope of individuals to decrease anxiety levels in the experimental group. Hence, working with a specified group led the current study to adapt phases of SBT in an original target-related content of a 13-session program.

Initially, in order to create a therapeutic alliance in the group, the leader explained the aim of the group sessions and briefly gave information about the concept of character strengths and explained group rules, informed consent forms were filled out, and group members introduced themselves to each other via icebreaker game and each member stated the aim of their participation related to their life experiences. As a result, two important purposes were met at the beginning of the program: understanding how they experience anxiety and becoming aware of their strengths.

In addition, according to participants' goals, their internal and external barriers to reach the optimum level for each character strength were identified. Moreover, group members' hopes, and dreams were elicited, and action plans were created for each member based on configuring a common ground. At this point, the cognitive restructuring technique of cognitive behavioral therapy (CBT) was needed for some of the participants to regulate their cognitive distortions related to their anxiety levels. Having an eclectic background of SBT could enrich the solution methods in dealing with clients' issues.

In the group sessions, group members were helped to build a healthy new identity with lower levels of anxiety and create healthy new connections who have high levels of 5-character strengths. In this way, efforts were made to provide long-term benefits to the group members. In the end, an evaluation was made by group members holistically for each session about techniques that are used, awareness gained, personal developments on character strengths and tasks of the sessions. Finally, hopes and future plans were shared, and the program was completed. Techniques of SBT that were used during the program were savoring the positive moment, harvesting the good, the hope chest, circle of support, strengths cards, vision board for strengths, goals and plans and empowering thoughts toolkit.

Also, apart from the SBT technique, cognitive restructuring technique of CBT and breathing exercises for high anxiety levels were used. Additionally, for each character strength, a movie was suggested as a task to support the understanding of the strengths via analyzing characters in the movies.

Data Collection Tools

Sociodemographic Form

Sociodemographic form contains information such as gender, age, place of residence, employment status, income level, department of the study, grade level, and psychological support history of the participants.

Beck Anxiety Inventory (BAI)

The Beck Anxiety Inventory is a brief self-report measure of anxiety developed to rate the severity of anxiety symptoms. It includes 21 items and responses are rated on a 4- point Likert scale and range from 0 (symptom not present) to 3 (symptom very severe) (Beck et al., 1988). It has 2 subscales, which are subjective anxiety and somatic anxiety. The scores on the inventory change between 0–63 and lower scores indicate lower anxiety levels. BAI has been translated and adapted to Turkish by Ulusoy et al. (1998). Cronbach alpha of the Turkish adaptation of BAI is .93. The item-total correlations range from .45 to .72.

Shyness Inventory

Shyness inventory is a self-report measure of shyness developed to rate the severity of shyness symptoms (Güngör, 2001). It includes 20 items and responses which are rated on a 4-point Likert scale and range from 1 to 4. The scores on the inventory change between 20–100 and lower scores indicate lower shyness levels. In terms of retest reliability, the coefficient was calculated as .83 and the Cronbach Alpha coefficient regarding the internal reliability consistency as .91.

State-Trait Anxiety Inventory (STAI)

STAI is a self-report measure of anxiety consisting of 40 items related to state and trait anxiety. The first 20 items measure state, and the other 20 items measure trait anxiety rated on a 4-point Likert scale and range from 1 to 4. There are 17 reverse questions, in total lower scores indicate lower anxiety. The scores on the inventory change between 20-80. The Turkish STAI was adapted by Öner and Le Compte (1998) and Cronbach alpha was .87.

Values in Action Inventory of Strengths for Youth (VIA-Youth)

VIA-Youth is a self-report measure consisting of 197 items related to 6 virtues and 24-character strengths. There are 24 subscales, evaluating a different character strength rated on a 5-point Likert scale ranging from 1 to 5. Subscale scores are created from the average of the responses. The scores can be used both with subscales and the dimensions of virtue (Park & Peterson, 2006). The Turkish version of VIA-Youth is adapted by Kabakçı, Ergene and Doğan (2019). According to the subscales, although consistency coefficients related to the Turkish VIA-Youth's reliability obtained from two different research groups are found relatively low, that is curiosity (.64), humility (.67), and prudence (.68), all other subscales exceeded .70. In addition, all test-retest reliability coefficients were found >.70. In consideration of the virtue dimensions, both coefficients of internal consistency obtained from the research group are >.80.

Statistical Analysis

Before the analysis, data entry was checked, and no missing data were found as a result of the missing data analysis. SPSS 26 package program was used for data analysis. Kolmogorov Smirnov and Shapiro-Wilk test values were first examined to determine whether the data were normally distributed. Since the Shapiro-Wilk test gives better results in cases where the number of data is less than 29 (Kalaycı, 2006), the results of this test were evaluated, and the data were found to show a normal distribution. However, since the Shapiro-Wilk test showed normal distribution even if the data were not normally distributed in very small samples, and there were 10 individuals in each group in our study, Q-Q Scatter Plots and histogram graphs were also examined to determine whether the data were normally distributed, and it was determined that the graphs did not show normal distribution characteristics. Therefore, non-parametric analysis methods were used instead of parametric analyzes in this study (Tabachnik & Fidell, 2013). The Mann-Whitney U test was employed to test whether there was a statistically significant difference between the pretest values applied to the group that received strength-based psychological counseling and the group that did not receive any intervention. Wilcoxon Signed Ranks Test was applied to determine the difference between the inventories (for both anxiety and character strengths) pre-test and post-test mean scores of the experimental and control groups.

Results

In the sociodemographic variables of the participants, there were no statistically significant differences between the experimental group and the control group ($p > 0.05$; Table 1; pp. 2-3). Except for the Beck Anxiety Inventory (U=20,000, z=-2.270, $p < 0.05$), there was no statistically significant difference between the Shyness Inventory, STAI and VIAYouth pre-test mean scores ($p > 0.05$) of the experimental and control group (Table 2).

Table 2. Comparison of pre-test values of experimental and control group

Variable	Mean of Rating: Experi-mental group	Mean of Rating: Control Group	U	z	p
BAI (Total)	13.50	7.50	20.000	-2.270	0.023*
BAI Subjective Anxiety	13.70	7.30	18.000	-2.423	0.015*
BAI Somatic Anxiety	12.00	9.00	35.000	-1.139	0.255
Shyness Inventory	11.15	9.85	43.500	-0.492	0.623
STAI State Anxiety	8.75	12.25	32.500	-1.325	0.185
STAI Trait Anxiety	10.00	11.00	45.000	-0.379	0.705
VIA Open-mindedness	11.20	9.80	43.000	-0.531	0.595
VIA Perspective	12.20	8.80	33.000	-1.293	0.196
VIA Zest for Life	10.90	10.10	46.000	-0.305	0.761
VIA Self Control	11.00	10.00	45.000	-0.380	0.704
VIA Hope	10.50	10.50	50.000	0.000	1.000

**p<0.05*

According to the results of the analysis, a statistically significant difference was found between the BAI pre-test and post-test values of the participants who received the Strength Based Group Psychological Counseling Program (z = -2.601, $p < 0.01$). Similarly, a statistically significant difference was found between pretest and post-test values in BAI Subjective and Somatic Anxiety sub-dimensions (z = -2.654, $p < 0.01$; (z = -2.311, $p < 0.05$) (Table 3). There was no statistically significant difference between the pretest and post-test values of Subjective Anxiety and Somatic Anxiety in the control group ($p > 0.05$).

Table 3. Experimental Group pre-posttest difference of BAI

		n	Total rank.	Total rank.	z	p
BAI	Negative rank	9	5.89	53.00		
	Positive rank	1	2.00	2.00	-2.601	0.009*
	Equal	0				
BAI Subjective Anxiety	Negative rank	9	5.94	53.50		
	Positive rank	1	1.50	1.50	-2.654	0.008*
	Equal	0				
BAI Somatic Anxiety	Negative rank	8	6.25	50.00		
	Positive rank	2	2.50	5.00	-2.311	0.021*
	Equal	0				

BAI: Beck Anxiety Inventory, *p<0.05

According to the results of the analysis, there was no statistically significant difference between the Shyness Inventory pre-test and post-test values of the participants who received and did not receive the Strength Based Group Psychological Counseling Program ($p > 0.05$).

In addition, a statistically significant difference was found between the pre-test and post-test values of the STAI sub-dimensions of the participants who received the Strength Based Group Psychological Counseling Program ($z = -2.701$, $p < 0.01$; $z = -2.499$, $p < 0.05$) (Table 4). There was no statistically significant difference between the STAI pre-test and post-test values of the group that did not receive any intervention ($p > 0.05$).

Table 4. Experimental Group pre-posttest difference of STAI

		n	Total rank.	Total rank.	z	p
STAI State Anxiety	Negative rank	9	6.00	54.00	-2.701	0.007*
	Positive rank	1	1.00	1.00		
	Equal	0				
STAI Trait Anxiety	Negative rank	8	6.50	52.00	-2.499	0.012*
	Positive rank	2	1.50	3.00		
	Equal	0				

STAI: State-Trait Anxiety Inventory
**p<0.05*

According to the results of the analysis, a statistically significant difference was found between the pre-test and post-test values of the Zest for Life sub-dimension of the participants who received the Strength Based Group Psychological Counseling Program ($z = -2.668$, $p < 0.01$). Also, a statistically significant difference was found between the hope sub-dimension pretest and post-test values ($z = -2.805$, $p < 0.01$) (Table 5). However, no statistically significant difference was found between the pre-test and post-test scores of the participants in the Open-Minded, Perspective and Self-Control sub-dimensions ($p > 0.05$). There was no statistically significant difference between the pre-test and post-test scores which did not receive any intervention, in the sub-dimensions of Open-mindedness, Perspective, Enthusiasm for Life, Self-Control and Hope ($p > 0.05$).

Table 5. Experimental group pre-test post-test difference of VIA-Youth

		n	Total rank.	Total rank.	z	p
VIA Open-mindedness	Negative rank	4	4.00	16.00	-0.778	0.437
	Positive rank	5	5.80	29.00		
	Equal	1				
VIA Perspective	Negative rank	2	5.50	11.00	-1.372	0.170
	Positive rank	7	4.86	34.00		
	Equal	1				
VIA Zest for Life	Negative rank	0	0.00	0.00	-2.668	0.008*
	Positive rank	9	5.00	45.00		
	Equal	1				
VIA Self-control	Negative rank	3	5.00	15.00	-1.277	0.202
	Positive rank	7	5.71	40.00		
	Equal	0				
VIA Hope	Negative rank	0	0.00	0.00	-2.805	0.005*
	Positive rank	10	5.50	55.00		
	Equal	0				

VIA Youth: Values in Action Inventory of Strengths for Youth
**p<0.05*

Discussion

The results show that individuals who participated in strengths-based group psychological counseling program had a statistically significant difference in their anxiety levels. In other words, it can be thought that strengths-based therapy helped young adults to decrease their anxiety levels. A study done by Modini et al. (2015) also shows that using optimal level of character strengths is associated with the absence of mental health, such as social anxiety disorder. Moreover, this is also supported by Li and Liu (2016). They stated that individuals that have high character strengths are prone to perceive less stress and demonstrate healthy psychophysiological responses. According to Bachik et al. (2021) college students who have high levels of zest, hope, gratitude, and love are most likely to report high levels of satisfaction with life. In this sense, it can be recognized that the findings of the current study are supported by other studies related to character strengths and healthy psychological states.

Another important finding of the current study is that individuals who participated in strengths-based group psychological counseling program had a statistically significant increase in their character strengths of hope. Especially for university students who are full of question marks about their future life by living in a developing country with high levels of unemployment rates, it is vital to have high levels of hope in their life. This is corroborated by other studies in the field (Toner et al., 2012; Gusewell and Ruch, 2012) which state character strengths, especially hope, have an impact on subjective well-being, school life and academic success. Peterson et al., (2006) point out that these factors are very helpful in the healing processes of psychological problems such as depression. To integrate the aims of the current study, these findings support the related literature by increasing character strengths and decreasing the anxiety levels of the participants.

Also, the current study shows that strengths-based therapy helps to increase the zest for life of university students significantly. Especially, in a pandemic period that the world has been suffering, it is an important result. Zest for life is related to many healthy psychological conditions and plays an influential role in protecting individuals from maladaptive reactions (Kabakçı et al., 2019). Moreover, individuals having higher levels of zest predict less depression and more positive affect in anxiety measurements (Freidlin, et al, 2017).

Despite its strengths, this study has some limitations. Findings show that there is not a statistically significant difference in individuals who participated in the strengths-based group psychological counseling program in character strengths of open-mindedness, perspective, and self-control. Although there has been an increase in the experimental group in these character strengths, it was not statistically significant. The reason may rely on the developmental explanations of these character strengths. It is stated that open-mindedness, perspective, and self-control are developed in individuals by depending on the experience and knowledge that require age, maturity, and life experience to cultivate. In this sense, the sample of the current study can be seen as a developing stage in the open-mindedness sense (Bachik et al., 2021; Kabakçı, et al., 2019; Park & Peterson, 2006). Hence, in future studies, to have more effective results in this age range, studies can be supported by individual psychological counseling sessions, related educational programs at schools or allocating more sessions in groups for these character strengths.

Another reason for this result may rely on the unclear differentiation between the definition of character strengths and personality traits (e.g., OCEAN model). Due to the lack of obvious theoretical differences in literature, researchers and professionals may develop similar practices which may prevent meeting the exact need for developing these character strengths. Hence, this study may open a new way to recognize the need for this theoretic confusion in literature.

In addition, another result of the study is there was no statistically significant difference in the shyness level of the participants in the experimental group. The reason may be related to the pathological basis of the term shyness. In literature, shyness depending on its level is associated with a social anxiety disorder or social phobia (Henderson et al., 2014). When the interest area of positive psychology is recognized, there are no psychopathological disorders. Thus, in future studies, the shyness points of the participants can be determined in a more detailed/categorized way according to their levels as low, medium, and high to form different content of group psychological counseling programs.

Also, it is thought that this study contributes novelty to the literature. There are a variety of studies related to character strengths and virtues, especially in overseas countries, however, most of them are limited to theoretical studies. Moreover, there is an applied study deficit in the literature, especially for group works. Also, there is a lack of studies referring to the power of character strengths while dealing with psychological problems. The reason for this is the traditional and problem-focused approach yet dominates the literature on managing psychological problems. Thus, by both developing character strengths via group sessions and decreasing anxiety levels of individuals, this study plays a vital role in filling multiple gaps in the literature. There need to be more experimental studies on developing character strengths while managing psychological problems to alter the customary view.

As stated in the introduction part, increasing character strengths is not only helpful to maintaining a current psychological state, but also crucial to developing coping mechanisms in problematic situations they confront related to themselves, families, friends, and academic environments. This perspective can also play a savior role in individuals' environmental-based problems because they can always rely on their intrinsic psychological resources as a shelter while they cannot control external issues. In order to develop this shelter successfully, there needs to be powerful teamwork by interdisciplinarity.

There are two main suggestions of the current study to the members of different professions. One of them is about managing anxiety. This study emphasizes focusing on the strengths of the individuals to manage their anxiety; it suggests a solution apart from focusing on the weaknesses of individuals as it is in a traditional approach. In this sense, psychiatrists, clinical psychologists, and psychological counselor specialists may adapt and enrich their methods of managing the anxiety levels of their clients via discovering and developing character strengths of clients.

Another suggestion to the practice area is about protecting the current positive state of individuals before a psychological problem occurs, playing a preventive role. To prevent potential anxiety-related problems in the future, developmental psychologists, family counselors, professionals take part in parenting schools, child development specialists, and preschool teachers may adapt character strengths to their occupational practices. Also, school principals and educational research scientists may play a vital role in integrating and adapting character strengths in the curriculum for students in different development stages. Also, a study concluded that strengths-based school approach contributes to academic, vocational, and personal development (Galassi & Akos, 2007). In this sense, it can be recognized that character strengths have a wide perspective related to various developmental areas.

In the light of this information, some suggestions are given to develop character strengths in individuals. Initially the concept of character strengths and virtues is needed to be understood clearly by professions stated above. To accomplish this, curriculum of the departments of psychology and psychological counseling and guidance need to be revised (e.g., positive psychology models should be included in contemporary therapy approaches). By this way, traditional problem-focused perspective can be stretched in a regular basis. Also, academics and researchers specialized in the related area may take part in schools (with different education levels) with informative seminars including theoretical background and application examples of characters strengths. In this way, variety of professions may reinforce the awareness of students about their strengths and a precaution can be taken for future psychological problems. Also, it is essential to integrate character strengths in the national and high educational system via the help of strength-related courses. A suitable pass and fail system can be developed for these courses by not conflicting with the purpose. In addition to this, the state should increase the appointment of professions working in this field to increase the time allocated for individual and group sessions to help students discover themselves in a positive way.

Overall, it can be indicated that interdisciplinarity is crucial to make an effective advance in managing anxiety by using the "tool" of character strengths. In this way, the concept of "positive youth development" and "happy schools" can be encouraged, and individuals in emerging adulthood may constitute psychologically healthier societies by developing positive substructure for their long-term adulthood years.

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RESEARCH ARTICLE

Intolerance of Uncertainty in the Covid-19 Outbreak: A Study on Social Work Students in Konya [1]

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Abstract

In addition to being a health problem, the Covid-19 epidemic also causes fundamental problems in areas such as the economy, social, political, and education at the global level. People continue to live daily with fears such as getting sick or losing their loved ones and exposure to severe traumatic effects. Social work students are among the negatively affected groups in this uncertain and risky environment. The definitions of social work students regarding the psychosocial outcomes of the pandemic process due to the education they receive will be able to emphasize a more specific point. This study aims to reveal the perceptions and attitudes of the students studying in the social work departments of universities in Konya towards the epidemic and their intolerance of uncertainty. Research results indicate that individuals show avoidance behavior because they cannot fully understand the causes of the disease. On the other hand, the perception that it is impossible to prevent the disease indicates a cognitive structure that it is not possible to avoid the disease. In addition, the importance of obtaining information about the disease and its prevention during the pandemic has emerged. Uncertainty in matters such as spread, contamination, and risk related to the disease is an important finding that increases anxiety. With this research, our leading suggestions are that medical social service authorities should take an active role in the context of public health and that the correct information should be delivered to young people through new generation media tools.

Keywords: *Attitude towards Covid-19, Intolerance of Uncertainty, Social Work.*

Öz

Covid-19 salgını bir sağlık sorunu olmanın yanında küresel boyutta ekonomi, sosyal, politik, eğitim gibi alanlarda da önemli sorunlara yol açmaktadır. İnsanlar hastalığa yakalanma, sevdiklerini kaybetme gibi korkularla günlük yaşamlarını sürdürmeye devam etmekte ve ciddi travmatik etkilere maruz kalmaktadırlar. Bu belirsizlik ve risk ortamında sosyal hizmet öğrencileri de olumsuz etkilenen gruplar arasında yer almaktadır. Sosyal hizmet öğrencilerinin aldıkları eğitim gereği pandemi sürecindeki psikososyal etkilere ilişkin tanımlamaları daha belirgin bir noktayı vurgulayabilecektir. Bu araştırmada Konya'daki üniversitelerin sosyal hizmet bölümlerinde öğrenim gören öğrencilerin salgına yönelik algı ve tutumları ile belirsizliğe tahammülsüzlüklerine dair durumlarını ortaya konmak amaçlanmıştır. Araştırma sonuçları, bireylerin hastalığın nedenlerini tam olarak anlamlandıramadıkları için kaçınma davranışı gösterdiklerine işaret etmektedir. Diğer yandan, hastalığı önlemenin imkansız olduğu algısının hastalıktan da kaçınmanın mümkün olmadığı yönünde bir bilişsel yapıyı gösterdiği anlaşılmaktadır. Ayrıca, araştırmamızda pandemic sürecinde hastalığa ve hastalıktan korunmaya dair bilgi edinmenin önemi ortaya çıkmıştır. Hastalıkla ilgili yayılma, bulaima, risk gibi konularda meydana gelen belirsizliğin ise kaygıyı artırdığı önemli bulgulardandır. Bu araştırma ile tıbbi sosyal hizmet otoritelerinin halk sağlığı bağlamında aktif rol alması ve gençlere doğru bilginin yeni nesil medya araçlarıyla ulaştırılması gerektiği temel önerilerimizdir.

Anahtar Kelimeler: *Covid-19'a Yönelik Tutum, Belirsizliğe Tahammülsüzlük, Sosyal Hizmet.*

[1] *This study's preliminary findings (abstract) were presented as an oral presentation at the 23rd National Social Work Symposium.*

Introduction

Covid-19, the global health crisis of our age, has caused 6.3 million people to die worldwide (World Health Organization Coronovirus Dashboard, 2022). Since March 11, 2020, when Turkey had the first Covid-19 case, it has infected more than 15 million people, and 99 thousand 15 people have died (Ministry of Health COVID-19 Information Platform, 2022). The Covid-19 pandemic is a problem that brings multiple disadvantages beyond public health, which negatively affects society in many ways, such as social, economic, healthy, and educational issues. Measures such as physical distancing, curfew, remote working, and distance education introduced to slow the spread of the pandemic have significantly changed the course of daily life. This process has been quite challenging for those with the disease and those who do not. With the protective and preventive measures taken together with the economic losses, people restricted in the movement are forced to stay away from their social contacts. Besides, their loneliness, the complex treatment process of individuals caught in Covid-19, the losses experienced, and the uncertainty about when the pandemic will end have increased their anxiety. Anxiety about getting sick has brought questions about the well-being of individuals. They are also adversely affected by situations such as the inability to access services and programs, whether they will be able to perform daily life activities again, the functionality of treatment opportunities, and fear of death (Emiral et al., 2020; Baltacı & Coşar, 2020; Ustabaşı Gündüz et al., 2021; Aydın & Kaya, 2022; Balcı et al., 2021). Questions such as how long the pandemic, which covers a significant period in human life, will last, the damage to vulnerable groups, and the reparability of the damage caused by the material and moral losses experienced, often affect thoughts and social well-being in the face of uncertainty.

The environment of uncertainty created by the Covid-19 epidemic all over the world has weakened people's coping experiences. In this environment of uncertainty, individual and social question marks about how people express their reactions and create plans become a psychological burden. Intolerance of uncertainty refers to the general tendency of individuals to react to situations that threaten future events and contain high levels of uncertainty. The reactions of individuals with an intolerance to uncertainty are cognitive (threat perception), emotional (anxiety, stress, well-being), and behavioral (devotion to preventive measures) (Bavolar et al., 2021). It makes it possible to understand aggressive behaviors through intolerance to uncertainty, rumination, and post-traumatic stress disorder seen in individuals during the pandemic. However, considering the relationship of socioeconomic stressors with aggression and post-traumatic stress disorder in addition to health-related measures reveals the need to evaluate the effects of the pandemic together with its biopsychosocial dimensions (Celik et al., 2021). It seems possible that these reactions, which vary according to an individual's personality traits, living conditions, spiritual evaluations, and how they make sense of their experiences, can be associated with the uncertainty brought by the pandemic process. Therefore, it is essential to understand the stress of uncertainty, considered one of the main reasons for some mental variables during the pandemic process, by concentrating on individuals' variables. Cancer patients show signs of stress and anxiety by having to struggle with uncertainties such as the ways of virus transmission and its effect on health (Hill et al., 2021) are examples of individual variables. In addition, the outcomes of being young and female regarding the stress of uncertainty can constitute another example. Accordingly, intolerance to uncertainty, anxiety and depressive symptoms are more intense in younger individuals and women, while intolerance to uncertainty increases the perception of threat and anxiety (Bavolar et al., 2021; Del-Valle et al., 2022). In this study, although no direct inference was aimed at individuals' interpretations of life dynamics, it is thought that revealing the relationship between the reflections of illness perception among young people and the stress of uncertainty will be a vital output in evaluating the psychosocial effects of the pandemic.

In the early stages of the pandemic, the interruption of the life patterns of people in their usual flow and the inadequacy of predictions about how long this situation can last are factors that point to uncertainty. Currently, the youth is the most disadvantaged group by the measures to suspend education in many countries. The stress of uncertainty they experience due to concerns about catching or being seriously affected by the disease makes it difficult for young people to focus on their studies. Transformation of less productivity and effort into cyberloafing behaviors in young people is the adverse behavioral outcome of this uncertainty, stress, and illness anxiety (Reizer et al., 2022). In addition, it brings to mind the reliability of information sources about the disease of individuals who spend more time at home, have less social interaction and find themselves in a forced digitalization with measures related to the pandemic. As the stress of uncertainty increases, individuals who need more information about the disease use more internet resources. However, as their search for information and contradictory information in internet resources increases, their fear of the disease also increases. In such a process, individuals with increased fear and anxiety tend to apply the physical distance rules more harshly by forcing themselves to spend more time in closed environments such as home (Baerg & Bruchmann, 2022).

The perception that individuals cannot manage their environmental dynamics causes anxiety with the stress of uncertainty brought about by the pandemic. However, experiencing the physical effects of catching the disease also affects these variables, thus restricting individuals' ability to cope with uncertainty (Saulnier et al., 2021). As one of the most prominent processes of adequate access to health services, this pandemic period shows the importance of empowering individuals against the stress of uncertainty. Social work comes from the human aid professions in the most needed occupational groups during the pandemic, after the health professionals. The reason for the existence of social work is to respond to the multidimensional problems arising from the public social/health field (Amadasun, 2020). This profession requires competence in many areas, such as proactive decision-making in the face of unexpected situations such as disasters and crises, managing crises, and meeting needs and resources in an environment of risk and uncertainty such as a pandemic. Tuncay (2004) states that social workers provide a wide range of services, from planning legal regulations in crises and disasters to combating psychosocial problems experienced in the process. Social workers, whose basic idea is to ensure the well-being of people, have essential duties in an environment of uncertainty and the pandemic that affects society in health, socioeconomic, psychosocial, and spiritual aspects. The investigation of social work students' attitudes towards the pandemic and the uncertainty of their experiences while still in their education can facilitate the arrangements to strengthen their competencies in processes such as solid decision-making and management. Based on this motivation, we aimed to reveal the perceptions and attitudes of the social work students of universities in Konya towards the pandemic and their intolerance of uncertainty.

Methods

The method of this study was designed following the quantitative research procedure. In the study, the relational screening model (Thomas, 2021) was used to examine the relationship between the perceptions and attitudes of the social work department students in Konya and their level of intolerance to uncertainty and to determine the relationship with the dependent variables. Within the framework of this primary purpose, the hypotheses tested within the scope of the research are as follows:

H1. Perception and attitude levels of students toward the Covid-19 differ statistically significantly according to sociodemographic variables.

H2. Students' levels of intolerance to uncertainty differ statistically significantly according to sociodemographic variables.

H3. There is a statistically significant relationship between students' score levels of the total and dimensions of the perception and attitude scale regarding the Covid-19 epidemic and their intolerance to uncertainty.

Sampling design

The study universe consists of students studying in the social work departments of universities in Konya. We conducted the research with 341 social work students studying in the fall semester of the 2021-2022 academic year and across the province. 22.9% of the students are studying in the first grade, 28.7% in the second, 22.9% in the third, and 25.5% in the senior year. We reached the students through the online survey link shared in the groups digitally. Every student who attends active classes is included in the online groups since there are groups where announcements about the department are made in the students' classes. Since the universe is relatively clear, this method was preferred. Each participant in the universe had the opportunity to participate in the research voluntarily by preventing the online survey for the second time. We tried to prevent bias and errors that may occur in the sample selection (Kılıç, 2013).

Data collection process

While collecting data during the research process, we used two measurement tools and questions containing the personal information of the participants. In the personal information section, which constitutes the first part of the questionnaire, questions were asked about students' class, university, catching Covid-19, being in quarantine due to contact, loss of a relative due to illness, getting counselor support due to concerns about the process and accessing information.

Perceptions and Attitudes towards COVID-19 Pandemic Questionnaire; The tool developed by Çırakoğlu (2011) to measure the perception and attitude toward the swine flu epidemic, and Artan, Karaman, Atak, and Cebeci (2020) adapted it for the Covid-19. The measurement tool consists of four dimensions: general perception, perception of reasons, perception of control and avoidance behaviors, and 53 items. The original paper accepts each dimension independently. The general perception dimension, also expressed as the perception of illness consists of two dimensions: dangerousness and contagiousness. The perception of reasons consists of three dimensions: conspiracy, environment, and belief. The perception of control consists of three dimensions: macro-control, personal control, and inevitability, and avoidance behaviors consist of three dimensions: cognitive avoidance, avoidance of common areas, and avoidance of personal contact. The dimensions' reliability values (Cronbach's Alpha) vary between 0.65 and 0.85. Expressed between "strongly disagree" and "strongly agree" for the measurement tool's disease, control, and causes perception dimensions. For the avoidance behaviors dimension, 5-point Likert-type grading is used, which is stated as "I have never done this behavior" and "I have done this behavior very often."

Intolerance of Uncertainty Scale; The measurement tool developed by Carleton, Norton, and Asmundson (2007) was adapted into Turkish by Sarıçam et al. (2014). The measurement tool has two dimensions: future anxiety and inhibitory anxiety, consisting of 12 items. The Cronbach Alpha internal consistency coefficient was 0.88 for the whole scale, 0.84 for the prospective anxiety sub-dimension, and 0.77 for the inhibitory anxiety sub-dimension.

Findings and Results

Table 1 presents participants' descriptive statistics with frequency and percentage values. Of the 341 students who participated in this research, who are studying in the Social Work Departments of universities in Konya, 89.9% are women, 24.3% were infected with coronavirus, and 30.2% remained in quarantine due to close contact with a Covid-19 patient. Findings also reveal that 49.3% of participants had lost a relative due to Covid-19, 2.9% received consultancy support during the Covid-19 pandemic, and more than half (51.6%) experienced anxiety about accessing information during the Covid-19 pandemic.

Table 1. Participants' descriptive statistics

Variable		Frequency	Percentage (%)
Gender	Female	303	89.9
	Male	38	11.1
Infected with coronavirus	Yes	83	24.3
	No	258	75.7
Quarantined due to close contact with a Covid-19 patient	Yes	103	30.2
	No	238	69.8
Lost a loved one due to Covid-19	Yes	168	49.3
	No	173	50.7
Received psychological support during the Covid-19 pandemic	Yes	10	2.9
	No	331	97.1
Experienced anxiety about accessing information on the Covid-19 pandemic	Yes	176	51.6
	No	165	48.4
Total		341	100

Table 2. Pearson r Pairwise correlations among the scales and dimensions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Disease perception	1.000						
(2) Causes perception	**0.164****	1.000					
(3) Control perception	**0.181****	**0.140****	1.000				
(4) Avoidance attitude	0.035	0.085	-0.032	1.000			
(5) Prospective anxiety	0.079	0.099	0.039	-0.076	1.000		
(6) Inhibitory anxiety	-0.053	0.097	-0.004	**0.226****	-0.106	1.000	
(7) Intolerance to uncertainty	-0.024	**0.130***	0.010	**0.192****	**0.257****	**0.934****	1.000

According to Table 2, there is a weak but statistically significant positive linear relationship between intolerance to uncertainty and avoidance attitude (r=0.192). Also, there is a weak but statistically significant positive correlation between the intolerance to uncertainty and the causes perception (r=0.130). In this respect, as individuals' intolerance to uncertainty increases, their perceptions of the factors causing the disease increase. However, they may develop disease avoidance behavior with the burden of uncertainty. The causes perception that leads individuals to feel anxious and strengthen with the increase in the burden of uncertainty is also explained by making a connection with the perceptions regarding the factors in the spread of the disease. The analysis results reveal that there is a positive relationship between preventive anxiety and avoidance attitude (r=0.226) indicating that as the anxiety about the disease being a hindering factor in the individual's life increases, the belief of individuals that it is not possible to be protected from the disease gets stronger. The findings also suggest that there are significant positive linear relationships between the dimensions of the perception of the disease, i.e., the general belief of the person about the disease, the belief in the factors that cause the disease, the perception of control, and the belief that one can avoid the disease (Artan et al., 2020). A significant positive linear relationship was found between prospective anxiety and inhibitory anxiety, which are the two dimensions of intolerance of uncertainty (r=0.257).

Table 3. Results of one sample t test

	Mean difference	SD	df	t	p
Disease perception	0.220	0.381	340	**10.669**	**<0.001**
Causes perception	-0.136	0.524	340	**-4.798**	**<0.001**
Control perception	-0.365	0.559	340	**-12.055**	**<0.001**
Avoidance attitude	-0.168	0.707	340	**-4.397**	**<0.001**
Prospective anxiety	0.018	0.358	340	0.906	0.365
Inhibitory anxiety	0.203	0.970	340	**3.865**	**<0.001**
Intolerance to uncertainty	0.110	0.499	340	**4.082**	**<0.001**

Test value = 3.00

Individuals' perception of the coronavirus disease is significantly higher than the test value (t_{340}=10.669, d=0.577, p<0.001), which indicates the neutral degree of the 5-point Likert scale. According to Cohen's d measure for single group designs (Goulet-Pelletier and Cousineau, 2018), the effect size of the difference is medium. In terms of causes and control perceptions, the analysis reveals that the means of these variables show a lower level of significant difference. In addition, the differences have a small effect size in causes perceptions (t_{340}=-4.798, d=0.260, p<0.001), medium effect size in control perceptions (t_{340}=-12.055, d=0.653, p<0.001) and small effect size in avoidance attitude (t_{340}=-4.397, d=0.238, p<0.001). While no significant difference was found in prospective anxiety, which is one of the two dimensions of intolerance of uncertainty (p<0.05), in the inhibitory anxiety dimension (t_{340}=3.865, d=0.237, p<0.001) and intolerance to uncertainty (t_{340}=4.082, d=0.220, p<0.001) have positive and small effect sized differences.

Table 4. Independent sample t test by being quarantined due to close contact with a Covid-19 patient

	Mean difference	SD	df	t	p
Disease perception	-0.119	0.045	339	**-2.674**	**0.008**
Causes perception	-0.081	0.062	339	-1.313	0.190
Control perception	-0.096	0.046	238.965	**-2.101***	**0.037**
Avoidance attitude	-0.066	0.077	232.664	-0.849*	0.397
Prospective anxiety	-0.001	0.042	339	-0.032	0.974
Inhibitory anxiety	-0.305	0.107	223.406	**-2.853***	**0.005**
Intolerance to uncertainty	-0.153	0.058	339	**-2.623**	**0.009**

Note. Independent variable: Being quarantined due to close contact with a Covid-19 patient
** Welsch test is reported because Levene's test indicated that the homogeneity of variance assumption is not met for this variable.*

According to the independent sample t-test results performed with the variables of disease perception, causes perceptions, control perception, avoidance attitude, and intolerance to uncertainty and its dimensions, there is no significant difference between those who have and have not been infected with the novel coronavirus (p>0.005). On the other hand, the test results reveal that the disease perception levels of males are higher than females (t_{339}=-2.969, p=0.003). However, individuals quarantined due to close contact with a Covid-19 patient more increased intolerance of uncertainty (t_{339}=-2.623, p=0.009), and a higher level of inhibitory anxiety ($t_{223.406}$=-2.853, p=0.005). According to these results, it is seen that the inhibition concerns about the effects of the disease in the society at the point of measures such as social distance and quarantine for the pandemic have deepened. On the other hand, according to the analysis results, the disease perceptions (t_{339}=-2.674, p=0.008) and control perception ($t_{238.965}$=-2.101, p=0.037) of the individuals who have been quarantined are higher than the ones have not been quarantined.

Table 5. Independent sample t test by having lost a loved one due to Covid-19

	Mean difference	SD	df	t	p
Disease perception	-0.082	0.041	339	**-2.001**	**0.046**
Causes perception	-0.025	0.057	339	-0.443	0.658
Control perception	-0.098	0.046	339	**-2.149**	**0.032**
Avoidance attitude	0.110	0.077	339	1.436	0.152
Prospective anxiety	-0.021	0.039	339	-0.547	0.585
Inhibitory anxiety	0.036	0.105	339	0.347	0.729
Intolerance to uncertainty	0.008	0.054	339	0.140	0.888

Note. Independent variable: Having lost a relative due to Covid-19

According to the analysis results shown in Table 5, the disease perception (t_{339}=-2.001, p=0.046) and control perception (t_{339}=-2.149, p=0.032) of individuals who have lost a loved one due to Covid-19 are significantly higher than whom have not. These results suggest that individuals who have lost a loved one due to Covid-19 perceive the disease as more dangerous and contagious.

Table 6. Independent sample t test by having received psychological support during the Covid-19 pandemic

	Mean difference	SD	df	t	p
Disease perception	-0.201	0.122	339	-1.648	0.100
Causes perception	-0.209	0.168	339	-1.245	0.214
Control perception	-0.148	0.049	15.169	**-3.024***	**0.008**
Avoidance attitude	0.277	0.227	339	1.219	0.224
Prospective anxiety	-0.224	0.064	10.996	**-3.496***	**0.005**
Inhibitory anxiety	0.347	0.311	339	1.116	0.265
Intolerance to uncertainty	0.062	0.160	339	0.384	0.701

Note. Independent variable: Having received psychological support during the Covid-19 pandemic
** Welsch test is reported because Levene's test indicated that the homogeneity of variance assumption is not met for this variable*

According to the analysis results shown in Table 6, the control perception (t_{339}=-3.024, p=0.008) and prospective anxiety (t_{339}=-3.496, p=0.005) of individuals who received psychological support regarding their concerns about Covid-19 were significantly lower than those who did not receive.

Table 7. Independent sample t test by having experienced anxiety about accessing the information on the Covid-19 pandemic

	Mean difference	SD	df	t	p
Disease perception	-0.041	0.041	339	-1.002	0.317
Causes perception	0.031	0.057	339	0.540	0.590
Control perception	-0.062	0.046	330.610	-1.368*	0.172
Avoidance attitude	0.429	0.073	339	**5.871**	**<0.001**
Prospective anxiety	-0.021	0.039	339	-0.547	0.585
Inhibitory anxiety	0.276	0.104	339	**2.648**	**0.008**
Intolerance to uncertainty	0.127	0.054	339	**2.370**	**0.018**

Note. Independent variable: Having experienced anxiety about accessing the information on the Covid-19 pandemic
** Welsch test is reported because Levene's test indicated that the homogeneity of variance assumption is not met for this variable*

According to the analysis results shown in Table 7, individuals who experienced anxiety about accessing the information on the Covid-19 pandemic have significantly higher inhibitory anxiety (t_{339}=2.648, p=0.008), intolerance to uncertainty (t_{339}=2.370, p=0.018), and avoidance attitude (t_{339}=5.871, p<0.001). These results indicate that having difficulty in accessing the information about Covid-19 causes more robust attitude towards avoiding the disease. The analysis findings also support that the individuals may think that it would be better to avoid meeting with people instead of being adequately protected from the disease.

Table 8. Multiple linear regression analysis

	B	SE	β	t	p
Constant	2.601	0.298		**8.733**	**<0.001**
Disease perception	-0.067	0.071	-0.051	-0.943	0.346
Causes perception	0.115	0.052	0.121	**2.228**	**0.027**
Control perception	0.010	0.064	0.008	0.153	0.878
Avoidance attitude	0.130	0.038	0.184	**3.445**	**0.001**
R-square	0.052				
Adjusted R-square					
F	4.639				
p	0.001				

Dependent variable: Intolerance to uncertainty

According to the multiple linear regression analysis presented in Table 8, which was performed to determine to what extent the independent variables, i.e., disease perception, causes perception, control perception, and avoidance attitude, predict the level of intolerance to uncertainty. The analysis result suggests a good fit with an R-square value of 0.052 ($F_{4;336}$=4.639, p=0.001). This value shows that 5.2% of the total variance in the level of intolerance to uncertainty is explained by the independent variables. Additionally, among these independent variables, causes perception (β=0.121, p<0.027) and avoidance attitude (β=0.184, p=0.001) have a significant effect on intolerance to uncertainty. Therefore, as individuals' perception of causes of the disease and avoidance behaviors increase, their intolerance to uncertainty also increases.

Table 9. Analysis of covariance

	Sum of squares	Df	F	p	Eta-square
Corrected model	19.770	2	**22.222**	**<0.001**	0.116
Intercept	38.384	1	**86.288**	**<0.001**	0.203
Intolerance to uncertainty	4.067	1	**9.143**	**0.003**	0.026
Anxiety state	13.490	1	**30.325**	**<0.001**	0.082
Error	150.354	338			
Total	2904.224	341			
Corrected total	170.124	340			

Dependent variable: Avoidance attitude

The analysis of covariance (ANCOVA) examines the impact of extraneous factors on a dependent variable while removing the effect of the covariate factors (Porter & Raudenbush, 1987). In our model, avoidance attitude is the dependent variable, intolerance to anxiety is the covariate factor, and the anxiety state is the extraneous factor. According to the results of ANCOVA presented in Table 9, there are statistically significant differences ($F_{2;338}$=22.222, p<0.001) in avoidance attitude between the groups of individuals who experienced anxiety about accessing the information on the Covid-19 pandemic and did not when adjusted for intolerance for anxiety. For the individuals who are anxious about accessing the information on the Covid-19 pandemic, the effect of intolerance of uncertainty on their avoidance attitude is more substantial than those who were not. The results also indicate that these variables explain 11.6% of the variance in the avoidance attitude (η^2=0.116).

Discussion and Conclusion

This research aims to examine the relationship between intolerance to uncertainty and the perceptions related to Covid-19, avoidance attitudes, and anxiety about access to the information on Covid-19, loss of a loved one due to Covid-19, and attitudes to psychological counseling. These constructs indicate the psychological repercussions of Covid-19 in individuals. Although the analysis did now show statistically significant results for every variable, presented implications will allow estimating the emotional and mental reflections of Covid-19 induced the uncertainty environment on individuals. The results suggest that the perceived uncertainty should be discussed along with individuals' explanations on the sources that caused the spread and emergence of the Covid-19 pandemic. In addition, the increasing environmental uncertainty due to the inability to understand the causes of the disease leads to avoidance behavior in individuals. Avoidance behavior can be regarded as cognitive and contact avoidance (Artan et al., 2020). Accordingly, individuals tend to avoid news related to Covid-19 by denying the existence of the pandemic in their cognitive pattern, while they may be in an attitude of avoiding contact environments and conditions that will lead to the transmission of the disease. This result can be supported by the evidence that avoidance behavior affects the weakening of social networks, triggers social withdrawal, and increases anxiety (Mallett et al., 20211). Therefore, our research suggests that individuals exhibit their avoidance behavior not to pay attention to the precautions to be followed to prevent the transmission of the disease, but to ignore the presence of the disease and perceive it as a cognitive threat.

Bavolar et al. (2021) expressed that the relationship between intolerance of uncertainty and threat perception leads to increased anxiety. Since it is associated with avoidance behavior, an example can be given as a result of similar research in which the behavior of adhering to preventive measures is weak in individuals. The stress (Bottesi et al., 2021) felt with the intense perception of the uncertainty about the disease puts individuals in a passive position in accepting the condition. They see struggling as meaningless, or they learn helplessness due to their failures at the point of struggle based on their own experiences. However, although they cannot fully accept the disease, we can predict that they cannot wholly ignore its effects or the potential to affect it with the return of uncertainty. Concerning our research, decreasing interaction weakens cognitive constructions about the emergence and spread of the disease. With the increasing perception that it is impossible to prevent the disease in terms of individual or access to health services, the weakening of the avoidance attitude strengthens the thought that it is related to cognitively developing learned helplessness.

Individuals' anxiety in an environment of uncertainty and their attitudes towards the inability to protect themselves from the disease take on a triggering task. Although such a concern is related to access to adequate information about the disease, indirect reflections of the measures taken during the pandemic can be predicted. It is seen that starting an isolated life, especially with home quarantines, increases the feelings of loneliness, panic, fear, aggression, and intolerance due to communication and movement limitations (Gavriluță et al., 2022). The transformation of long-term quarantines at home into a prison perception, fears of loneliness and isolation due to the inability to see their loved ones, and fears arising from financial difficulties and loss of livelihood make the psychological outcomes of individuals more understandable. Individuals who have anxiety about physical distance can make their depressive symptoms more intense by feeling their anxiety about the disease more intensely and catastrophizing the perceived situations. In particular, individuals with specific disease symptoms are more concerned about being infected and physical distance (Fedorenke et al., 2021). The behaviors of individuals to avoid contact with others against the risk of transmission of the disease are associated with not accessing sufficient information about the disease. The study of Wang et al. (2022) supports this result. It emphasizes that the stress burden caused by uncertainty is higher in individuals who do not have sufficient information about Covid-19 and who do not leave their homes unless it is compulsory or at all during quarantine. Individuals can develop attitudes other than expectations to cope with the psychological stress that comes with this anxiety. Individuals use social participation to cope with the stress of uncertainty caused by social isolation and disconnection from social networks due to pandemic measures (Wang et al., 2022). Shiloh, Peleg, and Nudelman (2022) studied the relationship between anxiety, perceived stress, and adverse effects related to the pandemic. They used health locus of control, self-efficacy, optimism, and intolerance to uncertainty as predictors in this model. Accordingly, it seems that intolerance to uncertainty raises more concerns regarding the Covid-19 pandemic. To minimize the negative impact of this relationship on the individual, it is predicted that we should strengthen the optimism and self-efficacy capacities of the individuals (Shiloh et al., 2022). Despite the implementation of the measures taken, the perception of failure in the struggle seen in individuals can be an element of anxiety. In this way, the ability of individuals to regulate their life dynamics with a positive perspective is a protective factor against Covid-19 stress. In an environment where individuals care for themselves and raise awareness about problems, their fears about Covid-19 decrease, and their well-being indicators increase. However, individuals can enhance their ability to accept themselves, their situation, and their coping skills by improving self-awareness. This way, the study results support a decrease in the indicators of intolerance to uncertainty (Deniz, 2021).

Our research has determined that individuals who are tired of following the news or announcements about the disease and think that they cause more anxiety can turn away from this news and close their way of obtaining information about the disease. The fact that individuals are interested in this process by closely following the information about the spread of Covid-19 negatively affects the ability to tolerate uncertainty and increases health anxiety and the perception of threats originating from the disease (Wheaton, Messner, & Marks, 2021). However, the presence of physical uncertainty perception seems to affect individuals in situations that require physical contact, such as the use of public areas. Therefore, by avoiding following news sources, individuals may create a more risky situation for themselves while escaping the pressure created by the news. The significant effects of the anxiety of knowing about Covid-19 on the intolerance of uncertainty and avoidance attitude point to the importance of obtaining clear and convenient information about the disease. The difficulties experienced in obtaining information or the anxiety experienced by individuals who are not sure about accessing the correct information cause them to see the disease as more contagious and dangerous. However, individuals who have problems accessing information sources about the disease or are worried about the accuracy of the information they have accessed push individuals to avoid news about the disease, ignore the disease, and avoid common areas and individual contacts. Although the obtained finding does not directly reveal the stress of uncertainty, it also explains the uncertainty about the disease with a dimension of the anxiety experienced at the point of accessing information. In this respect, measures that reduce social-environment interaction increase anxiety and lead individuals to social participation in various ways. Individuals who want to cope with uncertainty in a way can seek ways to communicate with their environment. Obtaining more detailed information on disease-related issues by utilizing environmental experiences is presumed to be the reason for this search. According to the results of the covariance analysis, the fact that the uncertainty stress of the individuals who are anxious at the point of obtaining information has a more substantial effect on the avoidance attitude can be explained in one dimension with the disconnection from social networks. According to Duru et al. (2022), intolerance to uncertainty and Covid-19 anxiety are statistically significant predictors of resilience. The increase in Covid-19 anxiety makes it difficult to tolerate uncertainty, and this makes it difficult to control emotions. Having resilience in all these negativities enables individuals to be more favorable toward Covid-19 and tolerant of uncertainty. Research emphasizes the need to provide psychosocial support, improve information channels during the pandemic, and develop social risk awareness among the public to provide psychological well-being and resilience (Dominelli, 2020; International Federation of Social Workers, 2022; Wang et al., 2022).

There may be different aspects of the fact that there is no significant difference in the intolerance of uncertainty of individuals with and without Covid-19. Khorrami et al. (2022) emphasize that while intolerance to uncertainty is an indicator of anxiety risk, it is also a factor in predicting negative emotions toward Covid-19. Similarly, another study emphasizes that individuals who have had the disease before or have had the disease make the level of intolerance to uncertainty predictable. However, the high level of hope associated with the dynamics of life establishes a relationship that strengthens the resilience of individuals against the challenging conditions brought by the pandemic process. These relationships indicate that individuals feel the stress load more intensely when they cannot control and predict (Karatas & Tagay, 2021). On the other hand, intolerance to uncertainty as an individual factor can enable individuals to develop their awareness of body perceptions to identify health-threatening sources that improve their perceptions of control and predictability. In this respect, a relationship between the emotional risk assessments of Covid-19 (such as fear of contracting the disease or dying from Covid-19) and health anxiety is not extant in situations where the intolerance to uncertainty is high and is related to the risk of contracting or dying from Covid-19. The increased anxiety is sufficient to further predict the adverse outcomes associated with having a disease. For this reason, the possibility of catastrophic results associated with the disease and the intensity of the anxiety states of the individual's environment create an effect that increases the anxiety of the disease. Although there was no relationship between health anxiety and risk assessments related to Covid-19 in the study, these assessments were related to the level of intolerance to uncertainty, which also increased health anxiety (Tull et al., 2020).

Our study demonstrates that the intolerance of uncertainty, perception of illness, and perception of control are increased in individuals who had been in quarantine due to close contact with a Covid-19 patient. Those who go into quarantine by getting away from their routine life patterns due to being in contact with a Covid-19 patient have to cope with effects such as stress, exhaustion, and intolerance caused by being closed for a long time in the same environment (Bilgin & Diğer, 2021). Death is a traumatic event for people on its own. Moreover, families who lost their relatives in the intensive care unit most of the time, except for a "normal" death, such as Covid-19, have to face this situation in a more isolated manner from other families due to the inability to perform funeral rituals, and this triggers the development of traumatic stress. (Montauk & Kuhl, 2020; Firouzkouhi et al., 2021). In addition, individuals who lost their relatives due to Covid-19 perceive the disease as highly contagious, dangerous, and incidents related to Covid-19 as highly uncontrollable. Those who receive psychosocial counseling during the pandemic process may have lower perceptions of control and future anxiety than those who do not receive counseling. Studies emphasize the positive effect of a high sense of control in protecting mental health (Senan et al., 2022). People's belief protected from Covid-19 is high, and their fears about the future are low. It would not be wrong to say that the low perception of control about the pandemic constitutes a protective role for individuals against mental health.

Limitations, recommendations, and directions for future research

One of the significant limitations of the research is associated with the research sample. The fact that social work students know the importance of the counseling process, especially in coping with psychological stress, may prevent the findings from being definitive predictors. Therefore, the explanation of illness anxiety and avoidance behavior may vary in a larger sample with sociodemographic differences. Another limitation in connection with the research results is the lack of measurement to explain the threat dimensions of the disease. A more in-depth investigation of the threat dimensions will make the psychosocial burden created by the uncertainty brought about by this disease, whose effects, sources, and ways of coping have been newly defined in the world.

Based on our research outputs, two leading suggestions come to the fore. Firstly, due to the importance of obtaining information about the disease, new media tools should communicate sources of access to information for young people. Young people, who are more inclined to follow social media and remarkable visuals in digital environments rather than traditional communication tools, can be reached more easily through these tools. In this case, it is recommended to use the social work perspective in preparing the content for the information that will keep the psychological well-being of the young people who will perform the social work profession strong. In addition, the fact that information sources are open access and easily accessible can also be one of the emphases that can prevent anxiety.

Our second recommendation is that it is essential to make predictions, as uncertainties about the disease's danger, risk, spread, and contamination increase anxiety. It is recommended that national authorities, especially in medical social work, gather their predictions about the psychosocial effects of the disease and its possible future reflections on society. Making predictions of the disease based on the current situation assessment will also reduce the anxious and avoidant behavior and thinking styles, as it can distract individuals from the point of uncertainty. Considering that social work students can work in situations of uncertainty and risk, it is clear that it is important and necessary to ensure their psychological resilience. Based on our research outputs, the importance of crisis and disaster management in social work education is understood. Since the psychosocial processes affecting individuals differ in each crisis and disaster, the change in individuals must also be manageable. Therefore, updating social work education with practices that can direct individual and social change in the mentioned processes is essential.

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RESEARCH ARTICLE

A Qualitative Research on Entrepreneurial Marketing Activities of Cluster Member SMEs[1]

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Abstract

The entrepreneurial marketing (EM) approach is a new phenomenon for SMEs. This study aims to reveal the orientation's consciousness and investigate the level of behavior among seven companies located in Ankara, Turkey. The selection is done through cluster representatives of the sectors including construction machinery, medical, renewable energy, rubber, defense & aviation, and communication. The companies are determined by theoretical (purposive) sampling and semi-structured face-to-face interviews are applied for data collection. Content analysis is used for the data-treatment technique. Entrepreneurial marketing activities are measured by EM dimensions as proactiveness, risk management, opportunity-driven, innovation-focused, resource utilization, customer density and value creation. Findings revealed that companies in the research sample have the approach of entrepreneurial marketing however the intensity differs according to sectors. It is aimed to increase the awareness of the approach among the SMEs to create superior customer value. Moreover, clarifying the activities built under entrepreneurial marketing will contribute to the practical side of marketing decisions and strategies as well as future studies filling the gap in the field.

Keywords: *Entrepreneurial Marketing, SMEs, Clusters.*

Öz

Girişimsel pazarlama (EM) yaklaşımı, KOBİ'ler için oldukça yeni bir olgudur. Bu çalışma, Türkiye'de yerleşik yedi işletmenin girişimsel pazarlama yönelimini ve bu konuya ilişkin bilincini ortaya çıkarmayı ve davranış düzeyini araştırmayı amaçlamaktadır. İşletmeler, inşaat makineleri, medikal, yenilenebilir enerji, kauçuk, savunma ve havacılık ve iletişim sektörleri olmak üzere sektörel kümelerde faaliyet gösteren işletmeler arasından seçilmiştir. İşletmeler teorik (amaçlı) örnekleme ile belirlenmiş ve veri toplama sürecinde yarı yapılandırılmış yüz yüze görüşmeler uygulanmıştır. Toplanan veriler, içerik analizi ile incelenmiştir. Girişimsel pazarlama faaliyetleri, proaktiflik, risk yönetimi, fırsat odaklılık, yenilikçilik, kaynak kullanımı, müşteri yönelimi ve değer yaratma olarak girişimsel pazarlama boyutları kullanılarak ölçülmüştür. Bulgular, araştırma örneklemindeki işletmelerin girişimsel pazarlama yaklaşımına sahip olduğunu ancak yoğunluğun sektörlere göre farklılık gösterdiğini ortaya koymuştur. Bu kapsamda, bu çalışma ile KOBİ'lerde üstün müşteri değeri yaratma yaklaşımının farkındalığının artırılması hedeflenmektedir. Ayrıca girişimsel pazarlama kapsamında oluşturulan faaliyetlerin netleştirilmesi, bu alandaki boşluğu dolduracak gelecekteki çalışmaların yanı sıra pazarlama kararlarının ve stratejilerinin pratik yönüne de katkı sağlayacaktır.

Anahtar Kelimeler: *Girişimsel Pazarlama, KOBİler, Kümeler*

[1] *The abstract of the study was presented in 7th International EMI Entrepreneurship & Social Sciences Congress, 20-22 June 2022, Tashkent/Uzbekistan*

Introduction

Marketing and entrepreneurship phenomenon are focused by reasearchers nearly after 1980's especially to build a bridge within the concepts (Hills & LaForge, 1992; Collinson & Shaw, 2001; Becherer et al., 2008, Hisrich & Ramadani, 2017). Gardner (1990) explained the relationship between entrepreneurship and marketing with the definition as it is the place where innovation is brought to market. In addition, studies on entrepreneurship and marketing have shown that entrepreneurship includes many activities in marketing theory that are quite similar and feed each other (Hills & LaForge, 1992; Collinson & Shaw, 2001; Hisrich & Ramadani, 2017; Toghraee et al., 2017).

There are studies showing that traditional marketing methods and the traditional marketing mix are no longer sufficient globally (Hultman & Shaw, 2003; Vargo & Lusch, 2004; Constantinides, 2006; Hisrich & Ramadani, 2018). Becherer et al. (2008) questioned whether traditional marketing methods are convenient for entrepreneurs in every circumstance as the marketing dynamics and inner resources can force entrepreneurs to develop marketing tactics with insufficient budgets.

Day and Montgomery (1999) explain that the marketing field should turn to have a more leaded approach and should use new methods, due to these five important changes: (1) connected knowledge economy, (2) adaptive organizations, (3) globalization and convergence, (4) fragmenting and frictionless markets and (5) demanding customers and their behaviors. In addition, business and business environments are changing rapidly in today's global economy and the marketing environment is more competitive to survive for small and medium-sized companies. Globalization has led to some transformations in traditional marketing paradigms and the development of newer methods. In this way, entrepreneurial marketing has emerged as one of the new marketing approaches.

In this manner, the motivation of the study is to explore (Small and Medium Sized Enterprises) SMEs marketing approach an entrepreneurial base. According to that seven companies located in Ankara, Turkey are included in the research sample. The companies are representing a cluster belonging to sectors which are Construction Machinery, Medical, Renewable Energy, Rubber, Defense & Aviation, Communication Technologies and Rail Systems. The aim is to investigate entrepreneurial marketing activities more deeply and therefore preferred to apply qualitative research via interview techniques. It is observed that there is a gap in the literature related to entrepreneurial marketing studies, therefore, the goal of the study is to analyze the companies in a national base at first, then expand the research in an international approach with collaborative studies.

Within this respect, the research questions are listed below:

1. Do Turkish cluster member SMEs have an entrepreneurial marketing approach?
2. Can marketing activities of Turkish cluster member SMEs be defined as entrepreneurial?

a. Can entrepreneurial marketing activities of Turkish cluster member SMEs be defined as proactive?
b. Can entrepreneurial marketing activities of Turkish cluster member SMEs be defined as risk management?
c. Can entrepreneurial marketing activities of Turkish cluster member SMEs be defined as opportunity-driven?
d. Can entrepreneurial marketing activities of Turkish cluster member SMEs be defined as innovative?
e. Can entrepreneurial marketing activities of Turkish cluster member SMEs be defined as resource leveraged?
f. Can entrepreneurial marketing activities of Turkish cluster member SMEs be defined as customer intensive?
g. Can entrepreneurial marketing activities of Turkish cluster member SMEs be defined as value created?

According to research questions, entrepreneurial marketing dimensions are included proactiveness, risk management, opportunity-driven, innovation-focused, resource leveraging, customer intensity and value creation. In the first part, the literature review is relieved and the marketing approach of sample companies are explained. In the data collection phase, semi-structured interviews are arranged and the content analysis technique is preferred for data analysis. Findings are presented and in the discussion part, research results are evaluated for comparative future studies.

Theoretical Background

Entrepreneurial Marketing Concept

In the literature, there are many definitions of entrepreneurial marketing. Some of these definitions focus on the marketing activities of small enterprises (Bjerke & Hultman, 2002), some on who conducts the marketing activities (Stokes, 2000) and some on the dimensions of entrepreneurial marketing such as innovation and value creation (Kraus et al., 2009), some on the nature of the establishment without distinction of size and age (Whalen et al., 2016).

According to Stokes (2000, p.2), entrepreneurial marketing is marketing activities carried out by entrepreneurs or people who are both owners and managers of enterprises. Hills and Hultman (2010, p.27) describe entrepreneurial marketing as "EM is a spirit, an orientation as well as a process of passionately pursuing opportunities and launching and growing ventures that create perceived customer value through relationships by employing innovativeness, creativity, selling, market immersion, networking and flexibility". Becherer et al. (2012) characterized entrepreneurial marketing as marketing processes in companies that usually have limited resources and chase opportunities in uncertain market conditions.

Whalen et al. (2016, p.7), who consider entrepreneurial marketing from a broader perspective, defined entrepreneurial marketing as "EM is a combination of innovative, proactive, and risk-taking activities that create, communicate, and deliver value to and by customers, entrepreneurs, marketers, their partners, and society at large". As can be understood from the difference between the definitions in the literature, there is no consensus on the definition of entrepreneurial marketing, where entrepreneurship and marketing intersect.

Entrepreneurial Marketing Dimensions

In the literature, entrepreneurial marketing activities of enterprises have been examined under different dimensions. These dimensions have been accepted by different researchers in different structures (Morris et al., 2002; Bjerke & Hultman, 2004; Hills & Hultman, 2006; Jones & Rowley, 2011; Whalen et al., 2016). Morris et al. (2002) developed seven dimensions in total, including proactiveness, risk management, opportunity-driven, innovation-focused, resource leveraging, customer intensity and value creation. The first four dimensions of this are entrepreneurial orientation, and the other three dimensions are marketing orientation. It is argued that these dimensions distinguish entrepreneurial marketing from traditional marketing (Hills, et al. 2008; Hisrich & Ramadani, 2017).

Bjerke & Hultman (2004) discussed entrepreneurial marketing with proactiveness, opportunity research and innovation dimensions within the scope of four basic pillars: entrepreneurship, processes, actors, and resources. Hills and Hultman (2013) suggested that there are six different dimensions of EM. These are including growth orientation, customer focus, informal market analysis, opportunity orientation, value creation through networks and closeness to market.

Jones and Rowley (2011) developed the EMICO model, which includes fifteen EM dimensions based on entrepreneurial orientation, innovation orientation, customer orientation, and marketing orientation. Stokes and Wilson (2010) examined the EM process with innovation, identification, interaction, and information within the scope of the 4I model. Whalen et al. (2016), on the other hand, developed another model emphasizing opportunity recognition, operant resources (knowledge, skills, and factors of production), entrepreneurial organization, environmental turbulence (market, competitive, technological), entrepreneurial marketing, and competitive advantage.

Due to these different approaches, there is no consensus on EM dimensions in the EM literature. However, focus on innovation, risk management, adaptation to markets and opportunity-driven recognition are common EM dimensions mentioned in many studies (Shaw, 2004; Morris, 2011; Hills & Hultman, 2011; Whalen et al., 2016). Many researchers have conducted their studies using the seven EM dimensions developed by Morris et al. (2002) (Hacioglu et al. 2012; Becherer et al., 2012; Gorica & Buhaljoti, 2016). In this study, seven dimensions defined for EM by Morris et al. (2002) were included in the research:

1. *Proactiveness* is considered an opportunity-seeking and forward-looking perspective of businesses in anticipation of future demand (Rauch, Wiklund, Lumpkin, & Frese, 2009). Proactiveness reflects how a business responds to market demands or creates new demands (Lumpkin ve Dess, 1996).
2. *Risk management* is the ability of businesses to use the actions they develop to seize opportunities in the market and to reduce or share risks (Morris et al., 2002).
3. *Opportunity-driven* refers to the orientation toward markets with undetected profit potential (Hills, et al. 2010). This dimension is especially vital for the success of SMEs (Gilmore, 2011).
4. *İnnovation focused* is the tendency to introduce new products and/or services and to experience technological leadership ahead of competitors through research and development in new processes (Lumpkin & Dess, 1996). Focusing on innovation can help capitalize on existing or new opportunities (Morris et al., 2002).
5. *Resource leveraging* is the ability of businesses to develop creative resources to do better with less (Morris et al., 2002). Resource leveraging is not only effectively spending limited resources, but also discovering a resource invisible to others (Becherer et al., 2012).
6. *Customer intensity*, refers to the core values of the business and its concern for the customer (Saduki-Dushi et al., 2019). This dimension is based on the belief that a customer-oriented approach should be at the center of the company's marketing activities (Becherer et al., 2012).
7. *Value creation* is defined as finding the unused source of customer value and creating custom resource combinations to generate value (Morris et al., 2002).

SMEs and Entrepreneurial Marketing

There are many quantitative studies in the literature that reveal the effects of entrepreneurial marketing dimensions on the performance of businesses in various fields. Hacioglu et al. (2012) revealed important findings between the innovation performance of SMEs operating in Turkey and EM. According to this study, proactiveness, innovation-focused, customer intensity, and resource leverage have a positive effect on the innovation performance of SMEs. The study of Hamali (2015) on enterprises in Indonesia showed that the EM dimensions of proactiveness, resource leverage, value creation, and customer intensity positively affect the business performance of enterprises. In another study by Sadiku-Dushi et al. (2019) in Kosovo, the effect of EM dimensions on the overall performance of businesses was examined. According to the results of the research, while proactiveness and risk management affect the overall performance negatively, other dimensions affect the overall firm performance positively. Fatoki et al (2018) measured the impact of EM on the financial performance of businesses and the individual performance of the business owner on South African SMEs and found that customer intensity, resource leverage, opportunity-driven, and value creation have a positive effect on financial performance and customer intensity, resource leverage, and value creation have positive effects on individual performance. Hoque et al. (2019) showed that there is a positive relationship between EM and SME performance in their study applied in Bangladesh.

The results obtained from EM studies conducted in developed countries are also not different. Becherer et al. (2012) in their mixed methods research on the United States, revealed that EM dimensions, especially value creation, significantly affect the success of SMEs. Rashad (2018) conducted a study showing that opportunity-driven, risk management and value creation dimensions of EM positively affect the performance of Saudi SMEs. Finally, Eggers' (2020) study showed that EM positively affects the performance of SMEs in Austria.

Although there are many quantitative studies on EM, the number of qualitative studies is very few. Qualitative research in the literature generally reveals how businesses use and adopt EM dimensions. Kurgun et al. (2011) showed how entrepreneurial marketing is implemented by boutique hotels with content analysis. Gorica and Buhaljoti (2016), in their qualitative research, examined how SMEs operating in Albania use the seven dimensions of EM to increase the efficiency of the business. Another qualitative study by Kocak et al. (2009) showed that EM dimensions such as organizational structure, innovation, marketing and learning orientation have important effect on born global companies for internationalization in their early stage businesses.

Methodology

Research Design

The aim of this study is to determine in depth how entrepreneurial marketing dimensions are applied in marketing activities by the member businesses of the industrial clusters in seven different sectors. As mentioned in the previous section, many studies in the literature examined the entrepreneurial marketing activities of SMEs using quantitative methods. In addition, entrepreneurial marketing dimensions can be applied consciously or unconsciously in the marketing activities of SMEs, and such activities can be revealed more clearly with in-depth analysis methods. In order to reach the aim adopted in the research, the phenomenology approach was used to explain the stance of entrepreneurial marketing dimensions among the marketing activities of SMEs and to reveal the perceptions of the firms towards entrepreneurial marketing activities. The phenomenology research design aims to make exploratory explanations about the issues that we are aware of but do not have in-depth or detailed knowledge of. It was thought that this design would be more appropriate in terms of evaluating the views of enterprises on entrepreneurial marketing processes and practices.

For data collection method, the semi-structured interview technique was conducted and interview questions were derived from the seven dimensions of entrepreneurial marketing put forward by Morris et al (2002). Totally 28 open-ended questions were used in interview forms. For the validity and reliability tests, experts from the field made their contributions.

Sample & Data Collection

Within the scope of the research, interviews were applied to seven small and medium-sized companies which are members of seven different sector clusters. Criterion sampling that is one of the purposive sampling methods is preferred. Purposive sampling is based on the selection of the subject groups and individuals who can best take us to the intended subject, rather than the number (Sigri, 2021). The sectors selected for the research consist of construction machinery, medical, renewable energy, rubber, defense and aviation, communication technologies, and rail systems sectors to observe the differences between the sectors. The sectors are also associated with seven different clusters operating in Ankara. Due to time and resource constraints, the research was limited to seven clusters operating in Ankara, Turkey.

In the process of selecting the businesses from the clusters, the larger SMEs were preferred when looking at the cluster as a whole. In Table 1, the general information of the businesses interviewed within the scope of the research is given.

Table 1. Case Companies Overview

Industry	Main Business	Foundation
1. Construction Machinery	Concrete batching plants, crushing screening	1987
2. Medical	Medical devices and systems	1991
3. Renewable Energy	Biogas, landfill gas	1987
4. Rubber	Automotive spare parts	1996
5. Defense & Aviation	Electromechanical systems	1975
6. Communication Technologies	Digital communication systems	2011
7. Rail Systems	Iron & steel	1937

The data collection process was carried out between 1-31 January 2022. Data were collected through online interviews with cluster member businesses with semi-structured questions. The online interviews, which lasted about 60-90 minutes and were held separately with each business, were recorded with the knowledge of the participants and then transcribed.

Analysis

The data collected in the research were analyzed via content analysis. First of all, the recorded interviews were listened to again and transcribed. Afterward, the expressions in the articles were carefully examined in terms of current marketing approaches and dimensions of entrepreneurial marketing.

The data-triangle was considered when checking the validity and reliability of the interview records, which were loaded into the program after the cross-check readings. Interview participants consist of senior managers such as the general manager and unit manager. The companies interviewed are seven different companies from seven different clusters. Since each company is in a different cluster, it operates in different sectors.

The code-theme list was created provided by the replies of the participants and also based on the literature review. The codes related to each other were grouped on the basis of entrepreneurial marketing dimensions. Themes were determined according to past and current studies related with the research area. At the analysis stage, QDA Miner 6.0 software program was also used. The findings obtained with the code-theme list are shown in the tables in the findings section.

Findings

The concept of entrepreneurial marketing is explained in the literature section. Accordingly, companies have explained what they do in their marketing activities within the scope of the seven dimensions of entrepreneurial marketing. Themes were adopted as the seven dimensions of entrepreneurial marketing used in Morris et al (2002)'s study.

The codes were created from the studies in the literature on the relevant dimensions and the data obtained as a result of the interviews and were grouped according to the themes. In total 31 codes were obtained to express entrepreneurial marketing activities under seven dimensions. Accordingly, 4 codes for the proactiveness dimension; 4 codes for the risk management dimension; 5 codes for opportunity-driven; 6 codes for innovation-focused; 3 codes for resource leveraging; 5 codes for customer intensity and 4 codes for value creation, were determined.

The findings including the frequency values and percentages of the codes are shown in Table 2. Frequency values are defined as the number of repetitions of statements used by interviewers during interviews. According to Table 2, the most frequently repeated code was value creation activities. The most frequently repeated code has been the seeking opportunities code after the value creation activities code. The least frequently repeated code was a quick evaluation of opportunities from competitors and measuring perceived value. While the most frequently mentioned code belongs to the value creation theme; Less frequently mentioned codes belong to proactiveness and value creation themes. The least frequently mentioned codes were used by only two companies. The codes mentioned by all companies have been pioneering, seeking opportunities, exploring new markets, outsourcing, value creation activities and cooperation with competitors.

Table 2. Code-Theme List and Frequencies

Themes	Codes	Count	%Codes	Cases
Proactiveness	Pioneering	13	4,3%	7
	Opportunity Creation	10	3,3%	6
	Quick Evaluation of Opportunities from Competitors	2	0,7%	2
	Following Trends	13	4,3%	6
Risk management	Engaging in Risky Projects	9	3,0%	6
	Risk Analysis	8	2,6%	6
	Risk Taking in Marketing Activities	7	2,3%	4
	Entering New Areas	12	3,9%	6
Opportunity-driven	Seeking Opportunity	17	5,6%	7
	Exploring New Markets	13	4,3%	7
	Market Expansion	9	3,0%	6
	Evaluating Opportunities	11	3,6%	6
	Identifying Opportunities	9	3,0%	5
Innovation focused	Managing Innovations	13	4,3%	6
	Responding to New Trends	9	3,0%	6
	Effort to Innovate	9	3,0%	6
	Innovation Planning	7	2,3%	5
	Product Development for Competitive Advantage	10	3,3%	5
	Driving Competition	6	2,0%	5
Resource Leveraging	High Impact with Small Investment	8	2,6%	6
	Sourcing for Opportunities	11	3,6%	6
	Outsourcing	12	4,0%	7
Customer Intensity	Focus on Customer Satisfaction	12	3,9%	6
	Customer Satisfaction Measurement	6	2,0%	5
	Meeting Customer Need	9	3,0%	5
	Identifying Customer Expectations	15	4,9%	7
	Creating a Strategic Marketing Plan	4	1,3%	4
Value Creation	Value Creation Activities	22	7,2%	7
	Cooperation with Competitors	9	3,0%	7
	Collaboration with Stakeholders	8	2,6%	5
	Measuring Perceived Value	2	0,7%	2

As expected, there are differences between companies in terms of entrepreneurial marketing activities. Although the main question is to examine the entrepreneurial marketing activities of these companies, the components of the phenomenon are also examined on a case-by-case basis. The findings are shown in Figure 1, within and between cases. Accordingly, the companies interviewed differ in terms of their entrepreneurial marketing activities. It is seen that there is a similarity in terms of entrepreneurial marketing activities carried out in companies operating in the construction, railway and defense sectors. This may be due to the fact that all three sectors are among the heavy industry sectors. Similarly, renewable energy and medical sectors seem to be similar.

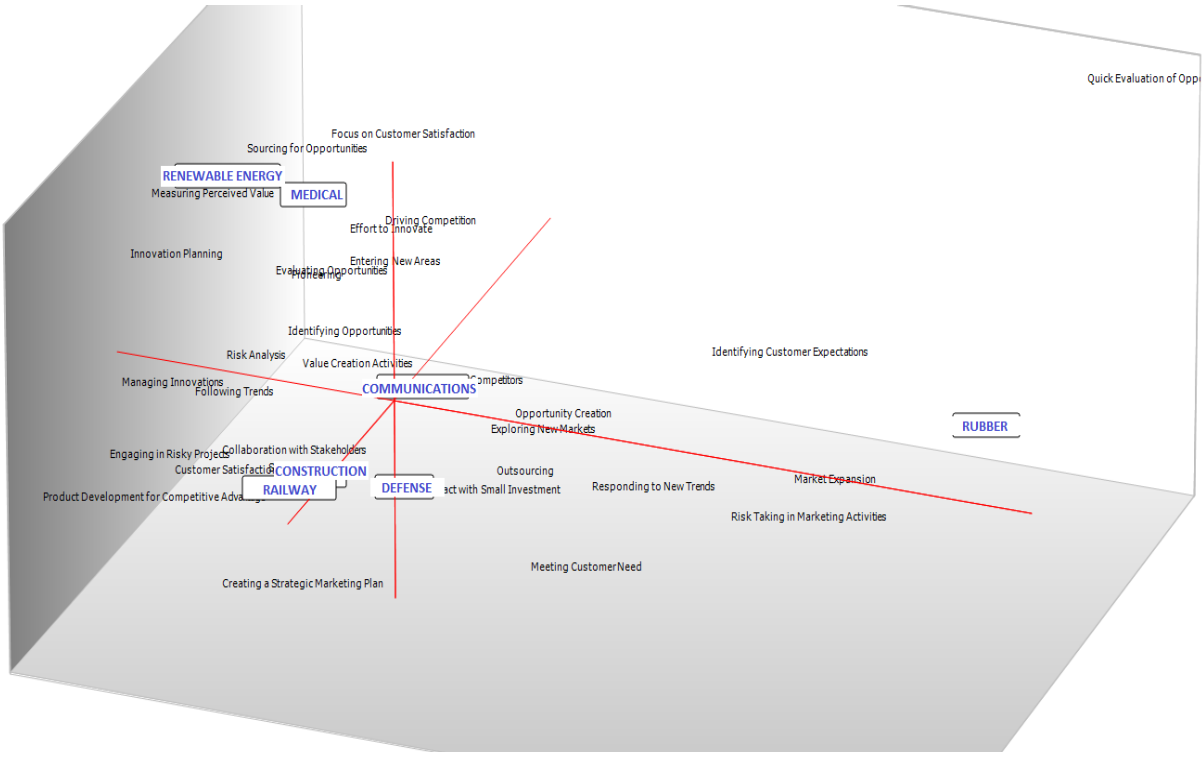

Figure 1. Correspondence Map

Figure 2 shows the entrepreneurial marketing activities on the basis of proactiveness, risk management, opportunity-driven, innovation-focused, resource utilization, customer density and value creation dimensions according to the degree of occurrence and frequency on a company basis. Accordingly, it has been observed that the company that uses entrepreneurial marketing activities more in marketing activities is in the railway sector. The railway sector is followed respectively by the construction, communications, medical and renewable energy sectors. The sectors that mention the entrepreneurial marketing activities the least on the basis of the codes determined are the rubber and defense sectors, respectively.

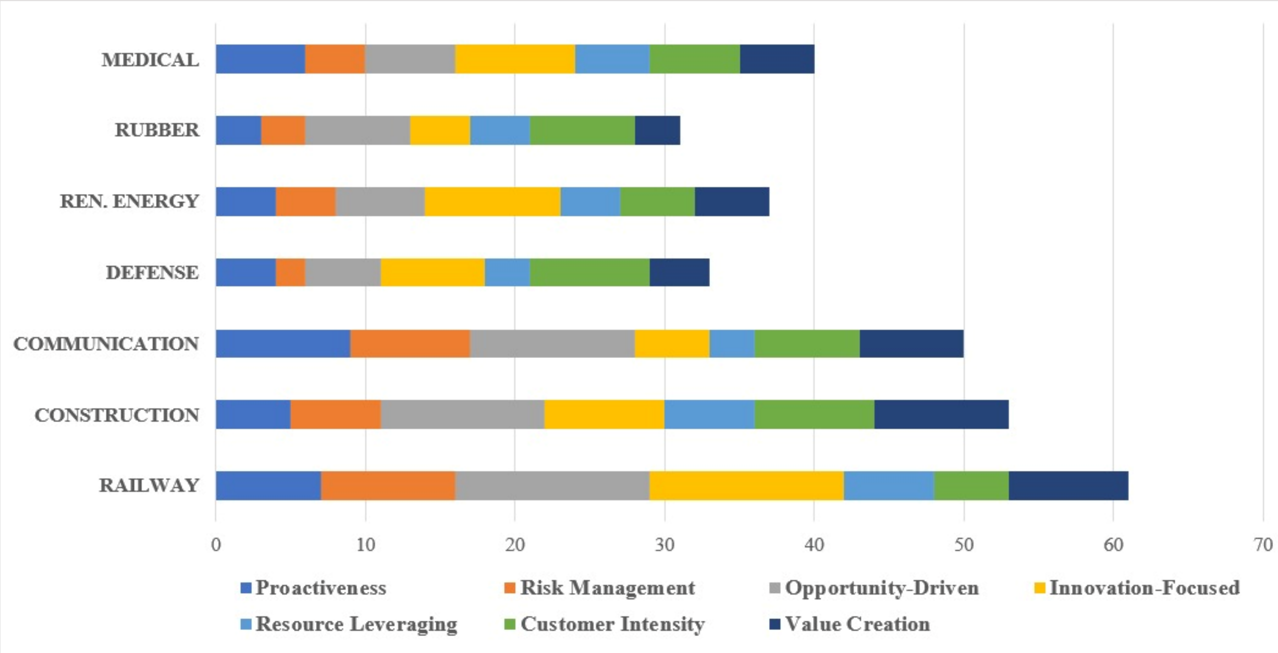

Figure 2. Entrepreneurial Marketing Activities of Case Companies

Discussion and Conclusion

The study results revealed the attribute of SMEs entrepreneurial marketing approach and it can be accepted as an edge of Turkish companies. The seven dimensions defined by Morris et al. (2002) are taken into consideration for the measurement. According to the results, it can be concluded that the sample companies have an entrepreneurial marketing approach whereas it differs from case to case. The distinct occurrence is derived from sectoral differences as well. The study also emphasizes the importance of this new marketing approach and provides a comparison of the sectoral preferences based on entrepreneurial activities.

Today's world is becoming more technology and digitalization oriented however marketing is still the core issue for companies to survive in the market and for competitiveness. Especially for SMEs entrepreneurial marketing activities could be a good choice for marketing decisions with its many advantages. The low-cost offerings and proactive approach are the basic elements of entrepreneurial marketing efforts. While the companies behave as newly founded with an entrepreneur mindset, they can be innovative and opportunity-driven leads to the marketing dynamics. Value creation is the most important tool for companies to attract customers and have a life-long relationship with them. In our cases, railway industry companies seem to be most entrepreneurial marketing oriented. Rubber industry firms are at the bottom level according to our listing. In fact, it was expected from the communication or renewable energy sector to be at the top of this rate as these sectors are more innovation-focused. Another interesting result is that customer intensity is observed more frequently in the defense sector.

According to these results, SMEs in the sample are more customer-oriented compared to the others while the resource leveraging is low level. For the overall results, the industries of construction, defense and rubber have similar approaches while the same behavior is observed between the medical and renewable energy sector. This can be concluded that the common missions of companies like heavy industry or the health sector have analogous approaches based on entrepreneurial marketing activities observed.

Research results are reached via the content analysis technique which means the data is provided by non-numerical variables. The findings of the entrepreneurial marketing orientation dimensions of each case firm are independent from each other therefore it should be mentioned that these findings are not directly compared of each other. As shown in the correspondence map, it reveals the agglomeration of the case firms that is presented for future studies focusing on the correlation of the dimensions.

The companies are selected and registered in the clusters which are accepted as main sectors of Turkey. This sectoral choice can be expanded for future studies as this can be a limitation of the study. Furthermore, the technique used for the explanation of research questions is based on content analysis. For further studies, quantitative techniques can be preferred to reach more participants. However, the results have a contribution to create awareness about the phenomenon both for practical and managerial sides. It is aimed to fill the gap in the literature and also increase the consciousness on entrepreneurial marketing approach.

Entrepreneurial marketing has a crucial concept both for marketing and entrepreneurship field, therefore it is suggested to increase the academic studies related with the approach. Furthermore, both quantitative and qualitative future studies can make contributions to the literature and for the managerial side and practitioners.

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RESEARCH ARTICLE

Predictors of Mathematics Achievement in Pandemic: Academic Grit and Technology Attitude[1]

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Abstract

The purpose of this study is to determine the predictors of mathematics achievement of fourth grade students' during pandemic by considering academic grit and technology attitude variables. The participants of the study consisted of 246 fourth-grade students studying in public primary schools in Gaziantep province center, Oğuzeli and Şahinbey districts. "Academic Grit Scale", "Attitude Towards Technology Scale" and "Mathematics Achievement Test" were the tools used to collect data. The results indicated that gender was not the primary factor on mathematics achievement, academic grit and attitude towards technology scores. The academic grit and attitude towards technology are found to be the significant predictors of mathematics achievement and academic grit affects mathematics achievement positively whereas technology attitude affects negatively. In the light of the findings obtained in this study, it could be better to develop activities that support and increase students' academic grit and to focus on teacher and learner characteristics who integrate technology in their teaching and learning environment, respectively.

Keywords: *Academic Grit, Mathematics Achievement, Pandemic, Primary School, Attitude Towards Technology.*

Öz

Bu çalışmanın amacı, akademik azim ve teknolojiye yönelik tutum değişkenlerini göz önünde bulundurarak dördüncü sınıf öğrencilerinin pandemi döneminde matematik başarısını yordayan değişkenleri belirlemektir. Çalışmanın katılımcıları, Gaziantep ili merkez Oğuzeli ve Şahinbey ilçelerinde devlet ilköğretim okulunlarında öğrenim gören 246 dördüncü sınıf öğrencisinden oluşmaktadır. Veri toplama aracı olarak "Akademik Azim Ölçeği", "Teknolojiye Yönelik Tutum Ölçeği" ve "Matematik Başarı Testi" kullanılmıştır. Çalışmadan elde edilen bulgular, cinsiyetin matematik başarısı, akademik azim ve teknolojiye karşı tutum puanları üzerinde belirleyici bir rol oynamadığını göstermektedir. Mevcut pandemi döneminde yürütülen bu çalışmada, akademik azim ve teknolojiye yönelik tutumun matematik başarısının önemli yordayıcıları olduğu ve akademik azimin matematik başarısını olumlu, teknolojiye yönelik tutumun ise matematik başarısını olumsuz etkilediği belirlenmiştir. Çalışmadan elde edilen bulgular sonucunda, öğrencilerin akademik azimlerini destekleyen etkinliklerin geliştirilmesi ve sırasıyla teknolojiyi öğretme ve öğrenme ortamlarına entegre eden öğretmen ve öğrenen özelliklerine odaklanılması önerilmektedir.

Anahtar Kelimeler: *Akademik Azim, Matematik Başarısı, Pandemi, İlkokul, Teknolojiye Yönelik Tutum.*

[1] *This manuscript was produced from the master thesis prepared by the first author under the supervision of the second author.*

Introduction

The COVID-19 pandemic has changed our perspective on education and moreover, the way we interpret education, forcing all levels of educational institutions to work remotely and to implement emergency distance education (Al Lily et al., 2020; Bozkurt & Sharma, 2020; Gedik & Erol, 2022). The pandemic has turned students' lives upside down in different ways depending not only on their level and course, but also on the point they have reached in their programs, and is the biggest challenge faced by national education systems, which have made great progress in all respects in the last five decades (Daniel, 2020). It has been accepted that the way to maintain social distance is the distance education application, especially in all countries where the spread of the virus is intense, and it has become the most preferred channel by administrators and experts in education (Telli & Altun, 2020). Although many of the countries lack the necessary infrastructure opportunities, they quickly adapted to the distance education process and tried to minimize the effects of the epidemic on education.

In distance education, the learner and the teacher are in physically separate environments. It is an interdisciplinary field that tries to eliminate the limitations between learning, teaching and learning resources, where students can participate either online or offline, offers the individual the opportunity to learn by themselves, uses existing technologies with a pragmatist approach without disturbing the integrity of education and according to the current historical period (Ad, 2020; Ağır, 2007; Akdemir, 2011; Bozkurt, 2017; Dinçer, 2006). First of all, distance education is a comprehensive learning process carried out in a planned manner and supported by new communication technologies (Kırık, 2014) and distance education provides opportunities to every learner (İşman, 2022). Although it is stated in the distance education literature that distance education is a priority opportunity for individuals who have difficulty in accessing educational opportunities in traditional education environments (Çoban, 2013), it seems that distance education did not find such an application area until the COVID-19 uncertainty (Fidan, 2020). During pandemic, there are also some research works focusing on the evaluation of distance education (e.g. Gökçe, Önal & Çalışkan, 2021; Krstic & Radulović, 2021). Moreover, the number of students experiencing distance education constitutes a great portion of all students (Allen & Seaman, 2016). In many parts of the world, the distance education applications, especially at primary school level, are almost non-existent until the COVID-19 pandemic. However, primary school is of great importance as it covers the childhood period of the individual (Türk, 1999). The experience and knowledge that the child gains in this period is very important in terms of their competence in education life (Kılıç & Gedik, 2020). In addition, the quality and efficiency of primary school education is very important in terms of forming the profile of citizens in a country (Küçüktepe, 2010). The primary schools' goal is to provide individuals with literacy and basic mathematics competencies and an understanding that they can make their own decisions throughout their lives. Considering this aspect, the foundation of mathematical skills that children will constantly need in their future lives is laid in primary school.

In today's world, people constantly encounter mathematical situations and have to make mathematical decisions in almost every field throughout their lives. Developing mathematical skills will help a person to solve many problems in daily life in a more systematic way (Yenilmez & Duman, 2008). Mathematics is a subject that should be emphasized from primary school age in order to enable a student to think logically, critically, systematically and creatively (Mutmainah & Indriayu, 2019).

In recent years, there have been significant changes in thought about what mathematics is and how it should be taught (Olkun & Uçar, 2018). Effective teachers maximize the potential of technology to improve their students' understanding, engage, and increase their proficiency in mathematics (Van De Walle, Karp & Bay-Williams, 2016). Technology is perceived as products containing high quality scientific knowledge and technical features (Gedik, 2021). Although we encounter it in this way in daily life, technology is a field that includes all social and economic activities and organizations that envisage the realization of technical knowledge. When viewed with an optimistic definition, technology is the application of scientific principles and innovations to solve problems (Kol, 2012).

Nowadays, using technology has become a necessity rather than a privilege (Yılmaz, Ulucan & Pehlivan, 2010). Technological developments and information society's ways of reaching information are different (Alkan, 2005). Therefore, technology and especially information and communication technologies (ICT) are widely used in educational environments as in many fields and affect educational environments significantly (Gedik, Sönmez & Yeşiltaş, 2019; Kol, 2012; Örün et al., 2015). With technology integration in education, children can have the ability to slow down and revert to lessons and concepts (Arslan & Bilgin, 2020).

According to Papert (1980), the use of computers to investigate, discover and find mathematical concepts and relationships changed traditional mathematics teaching and learning environments. Tomorrow's classrooms would be different. The teachers would not be teaching like today and also students would not be learning like today (Baki, 2002). Based on the recent mathematics education philosophy, students should reach the information themselves (Altundal, 2013) and educational institutions should focus on gaining the practical skills that would enable them to produce solutions to mathematical problems (Stacey, 2006). It can be said that academic success is directly or indirectly related to many factors (Kenar & Balcı, 2013) and there are many factors that may have an impact on students' mathematics achievement (Üredi & Üredi, 2005). Therefore, many features such as students' interests, learning styles, self-concepts, experiences and mathematical abilities are very effective in the teaching of this course (Açıkgöz, 1996). At this point, it is thought that the academic grit of the students who are faced with distance education during the pandemic process is important because they carry out educational activities at home without the support of teachers.

Children with a high level of tolerance as a personal characteristic, optimistic, open to sociability, willpower, cheerful, determined, and not giving up easily are more successful in the later stages of their lives (Tough, 2012). Children who are the same in ability and capacity may differ in grit. For this reason, it is stated that children should struggle against difficulties without giving up (Duckworth et al., 2007).

The concept of academic grit is defined as a feature or skill that includes being focused, resilient and determined in reaching the long-term challenging goals that individuals set in their education life in line with their own wishes (Clark, 2017). Grit is a character trait that ensures people's commitment to their goals and desires, works towards these goals and contributes to them (Bashant, 2014). Also, grit is the inexhaustible interest in facing the challenges that come our way and even if there are unsuccessful results despite our efforts (Pappano, 2013). Grit will enable individuals to move forward without giving up despite the difficulties they face (Ergüner Tekinalp & Işık, 2021). Academic grit is the power of endurance and patience that makes people achieve success by overcoming obstacles in all conditions and places (Rojas et al., 2012). Family environment, school, classroom climate and social activities are very important in the beginning of academic determination (Gorman, 2015).

One of the main factors in shaping the success of students in a certain field or the design of a curriculum is the "attitude" towards related learning products (Yurdugül & Aşkar, 2008). Students were left alone at home without teacher support and peer interaction during the pandemic process. In such a case, the main motivation of this research is to determine whether the individual academic determination of the students or their attitude towards technology that they are frequently exposed to during the distance education process have an impact on their academic success.

In this study, the relationships among mathematics achievement, academic grit and attitude towards technology of fourth grade students during the pandemic was investigated.

Within the scope of the research, answers to the following questions were sought.

RQ1. What is the level of students' mathematics achievement, academic grits and technology attitudes?

RQ2. Do students' mathematics achievements, academic grits and technology attitudes differ according to gender?

RQ3. What is the relationship among mathematics achievement, academic grit and technology attitude variables?

RQ4. Do academic grit and technology attitudes predict mathematics achievement?

Method

This section covers information regarding the research design, participants, data collection tools and data analysis.

Research Design: This quantitative study was designed to determine the predictors of fourth grade students' mathematics achievement with academic grit and technology attitude variables in pandemic. Therefore, the correlational survey model was used in this study since we examined the relationships among variables and investigated whether there was a difference between the groups in which two or more variables exist and depending on the independent variable, in terms of dependent variable (Cemaloğlu & Erdemoğlu Şahin, 2007; Creswell, 2017; Karasar, 2013).

Participants: The participants consists of 246 fourth grade students studying in public primary schools in Gaziantep, Turkey in the 2020-2021 academic year. Moreover, 55.3% of the students are female (136 pupils) and 44.7% are male (110 pupils).

Data Collection Tools: "Academic Grit Scale", "Attitude Towards Technology Scale" and "Mathematics Achievement Test" were the tools that were used to collect the data.

Mathematics Achievement Test: It is a test consisting of 22 multiple-choice items, developed by Balcı (2019) by making validity and reliability analyzes to determine the mathematics achievement of fourth grade students. Balcı determined the KR-20 reliability coefficient of the achievement test as .84. Based on this value, it can be said that the test reliability is at a good level.

Academic Grit Scale: The scale developed by Rojas et al. (2012) in order to determine the academic grit levels of primary and secondary school students was adapted into Turkish by Bozgun and Başgül (2018). The scale is in 5-point Likert type and consists of 10 items within one dimension. The Cronbach alpha internal consistency coefficient calculated for the original version of the scale was .85, and Turkish adapted version of the scale. was 84. In this study, the Cronbach's Alpha reliability coefficient for the academic grit scale was calculated as .85. Based on this value, it can be said that the reliability of the scale is at a good level.

Technology Attitude Scale: This scale was developed by Edge and Balcı (2013) and measured the attitude towards technology. It is a 5-point Likert type and consists of 20 items. The Cronbach alpha coefficient was found to be .80 which was at a good level.

Data Analysis

SPSS statistical package program was used in the analysis. In this direction, descriptive statistics were used to reveal the current situation in the mathematics achievement, academic grit and attitudes towards technology. Normality assumptions were tested to compare students' mathematics achievement, academic grit and attitudes towards technology according to the gender variable by parametric tests. In the comparisons, independent sample t-test was used for comparing gender differences. Pearson moments product correlation coefficient was calculated to determine the relationships between mathematics achievement, academic grit and attitudes towards technology. Finally, linear regression analysis was used to predict mathematics achievement with academic grit and attitudes towards technology.

Results

The findings are discussed in the context of research questions. To begin with, the descriptive statistics for mathematics achievement, academic grit and technology attitude variables are found as in Table 1.

Table 1. Descriptive statistics for mathematics achievement, academic grit and attitudes towards technology variables

Varibles	Mean	Std. Dev.	Min-Max
Mathematics achievement	10.50	3.67	0-22
Academic grit	40.31	7.31	5-50
Attitudes towards technology	46.43	7.48	5-100

Table 1 presents descriptive statistics for mathematics achievement, academic grit and attitudes towards technology. Firstly, the mean raw score of mathematics achievement test was obtined as10.50 (out of 22) and the standard deviation was 3.67. Secondly, the mean academic grit scale score was calculated as 40.31 (out of 50) and standard deviation was 7.31. Thirdly, mean score for attitude towards technology scale was found to be 46.43 (out of 100) and standard deviation was 7.48. Based on these values, it can be said that the participants' mathematics achievement levels are below medium, their academic grits are high and their technology attitudes are moderate.

In the second research question, mathematics achievement test, academic grit scale and technology attitude scale scores were compared according to gender with independent t-test. The results are figured out in Table 2.

Table 2. Gender comparison of mathematics achievement test, academic grit scale and attitudes towards technology scale scores

Variables	Gender	f	Mean	Std. Dev.	T	p
Mathematics achievement	Female	136	10.33	3.66	-.78	.43
	Male	110	10.70	3.68		
Academic grit	Female	136	40.69	7.30	.89	.37
	Male	110	39.85	7.32		
Attitude towards technology	Female	136	46.40	6.97	-.05	.95
	Male	110	46.46	7.99		

In this analysis, independent samples t-test was conducted to investigate whether male and female students' mathematics achievement test, academic grit and attitudes towards technology scores differ sigificantly. Accordingly, it was determined that there was no significant gender difference in either mathematics achievement, academic grit and attitudes towards technology scores (p>.05).

The third research question investigates the relationships among mathematics achievement, academic grit and attitude towards technology variables. Results of Pearson Product Moments correlation coefficients are given in Table 3.

Table 3. Pearson Product Moments correlation coefficients between mathematics achievement, academic grit and attitudes towards technology

	Academic grit	Attitude towards technology
Mathematics achievement	.306**	-.158**

**$p < .01$

Due to the Pearson Moments Product correlation coefficients given in Table 3, there is a positive (.306) and significant relationship between students' mathematics achievement test scores and academic grit scale scores. However, there is a negative (-.158) and significant relationship between mathematics achievement test scores and attitudes towards technology scale scores (p<.01). Based on this finding, it can be said that as students' academic grit scale scores increase, their mathematics achievement test scores also increase. On the other hand, as primary school students' attitudes towards technology increase, their mathematics achievement decreases.

The fourth research question focuses on the variables (i.e. academic grit and attitude toward technology) predicting mathematics achievement. Linear regression analysis are conducted and the results are given in Table 4.

Table 4. Linear regression analysis results conducted to predict mathematics achievement

		Unstandardized		Standardized	t	p
Dependent variable	Independent variable	β	Std. Error	β		
	Constant	7.860	1.862		4.221	.000
Mathematics achievement	Academic grit	.156	.031	.309	5.120	.000
	Attitude towards technology	-.079	.030	-.160	-2.650	.009

R=.347 R^2=.113 $F_{(2.242)}$=16.534 p=.000 Durbin Watson=1.736

According to Table 4, the regression model is determined as "mathematics achievement = 7.860

+ 0.156*(academic grit) – 0.079*(attitude towards technology)". When all other values of the remaining variables are kept as constant, 1 point increase on the academic grit scale score ends up with .156 point increase on mathematics achievement test score. Conversely, when all other values of the remaining variables are kept as constant, 1 point increase on the attitude toward technology scale score turns out to be .079 point decrease on mathematics achievement test scores. When the model explanatory coefficient is examined, it is seen that 11% of the mathematics achievement score is explained by academic grit and attitude towards technology variables. According to the results of linear regression analysis, it can be said that academic grit has a more significant effect on mathematics achievement than attitude towards technology. In addition, the Durbin-Watson value calculated for the model is 1.736, which indicates that there is no autocorrelation problem in the model.

Discussion, Conclusion and Recommendation

The purpose of this study is to determine the predictors of mathematics achievement of fourth grade students' during pandemic by considering academic grit and technology attitude variables. According to the results, it was determined that the mathematics achievement levels of the students were below medium. This result is inline with the results of the study conducted by Tümer & Güler (2017). According to these researchers, although Turkey showed slight increases in Trends in International Mathematics and Science Study (TIMSS) assessments, it remained below the international average in each exam. In addition, there are different research results in the related literature that support this finding (Aktan, 2012; Peker & Mirasyedioğlu; Yılmaz, 2021; Yücel & Koç, 2011). It was determined that the academic grit of the fourth grade students was high and their attitude towards technology were moderate. Research results on academic grit and attitude towards technology (Çetin, Çalışkan, & Menzi, 2012; Dargut & Çelik, 2014; Erten, 2019; Şahin & Arslan Namlı, 2019) also support this finding.

It was determined that there was no significant difference in the mathematics achievement, academic grit and attitudes towards technology of fourth grade students according to gender comparison. Studies showing that gender is not a factor on students' mathematics achievement (Akhan & Bindak, 2017; Bozkurt, 2012; Herbert & Stipek, 2005; Hyde, Fennema & Lamon, 1990; Leahey & Guo, 2001; McGraw, Lubienski & Struchens, 2006; Sarı & Ekici, 2018; Tanrıverdi, 2021; Yılmaz, 2021; Yücel & Koç, 2011) also support this finding. In addition, Yenilmez and Duman (2008) stated that according to student opinions, and Dursun & Dede (2004) according to teachers' opinions, gender is not a significant factor in students' mathematics achievement. In addition, research results on academic grit (Ekinci & Hamarta, 2020) and attitude towards technology (Bakioğlu, et al., 2015; Karasakaloğlu, Saracaloğlu & Uça, 2012) support this finding by revealing that gender is not a factor on these variables. However, it is possible to come across research results in the related literature that academic grit (Bozgün, 2021) and attitude towards technology (Dargut & Çelik, 2014; Şahin & Arslan Namlı, 2019) differ according to gender.

It has been determined that there is a positive relationship between mathematics achievement and academic grit of fourth grade students, and a negative significant relationship between their mathematics achievement and their attitudes towards technology. Based on this finding, it can be said that as students' academic grit increases as their mathematics achievement increases, and as their attitude towards technology increases, their mathematics achievement decreases. In addition, it was determined that students' academic grit and attitude towards technology were significant predictors of their mathematics achievement, and that 11% of mathematics achievement was explained by these two variables, and the model obtained was significant. While students' academic grit affects their mathematics achievement positively, their technology attitudes negatively affect their mathematics achievement. Finally, it was concluded that academic grit has a more significant effect on mathematics achievement than technology attitude. Research results on the positive effect of academic grit on achievement (Bowman, et al., 2015; Duckworth, et al., 2007; Robertson-Kraft & Duckworth 2014; Yoncalık, 2018;) support this finding. According to Datu, Valdez and King (2016), the positive effect of grit on academic engagement means that students who are determined and passionate about achieving long-term goals tend to feel good about participating actively in classroom activities and taking part in academic studies. The use of technology increases scientific skills, helps to learn the subjects, likes it to be used in lessons, and wants it to be used more often in lessons. From this, it can be concluded that as the attitude towards technology is positive, the level of using technology also increases (Arslan & Bilgin, 2020). However, it is an important situation that should not be overlooked that students with a high technology attitude can use technology for different purposes. Especially during the pandemic process, students have been very much intertwined with technology and may have chosen to use technological opportunities for different purposes in many cases where they need to focus on their lessons. Such a situation may have resulted in students moving away from their courses and academic studies and negatively affecting their academic achievement.

In the light of the findings obtained in this study, it could be better to develop activities that support and increase students' academic grit and to focus on teacher and learner characteristics who integrate technology in their teaching and learning environment, respectively.

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RESEARCH ARTICLE

The Effect of Project-Based Learning Approach on Lesson Outcomes, Attitudes and Retention of Learned in Secondary School Music

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Abstract

In this study, the effect of the project-based learning approach applied in the 6th grade music lessons of the secondary school on the students' learning outcomes and their attitudes towards the music lesson was examined. The study was carried out according to the pretest-posttest design with a control group, which is one of the semi-experimental models. The experimental and control groups of the study consisted of 44 (22+22) 6th grade students in secondary school. In the collection of study data, secondary school 6th grade music acquisition test and attitude scales towards music lesson were used. In the experimental group, the project-based learning approach was applied, and in the control group, experimental procedures were applied for 6 weeks in accordance with the instructions of the secondary school 6th grade music lesson curriculum of the Ministry of National Education. In the study, research measurement tools were applied to the experimental and control groups as pretest, posttest and retention test. According to the research findings, students in the experimental group to whom project-based learning approaches were applied achieved significantly higher music lesson achievements, attitudes and retention scores compared to their peers in the control groups.

Keywords: *Project-Based Learning, Music Lesson, Secondary School Students.*

Öz

Bu çalışmada, ortaokul 6. Sınıf müzik derslerinde uygulanan proje tabanlı öğrenme yaklaşımının öğrencilerin ders kazanımlarına ve müzik dersine yönelik tutumlarına etkisi incelenmiştir. Çalışma yarı deneme modellerinden kontrol gruplu öntest-sontest desenine göre gerçekleştirilmiştir. Çalışmanın deney ve kontrol grupları 0rtaokul 6. Sınıflarda öğrenim gören 44 (22+22) öğrenciden oluşmaktadır. Çalışma verilerinin toplanmasında ortaokul 6. Sınıf müzik kazanım testi ve müzik dersine yönelik tutum ölçekleri kullanılmıştır. Deney grubunda proje tabanlı öğrenme yaklaşımı kontrol grubunda ise MEB'in ortaokul 6. Sınıf müzik dersi öğretim programlarının yönergelerine uygun olarak 6 hafta deneysel işlemler uygulanmıştır. Çalışmada deney ve kontrol gruplarına araştırma ölçme araçları, öntest, sontest ve kalıcılık testi olarak uygulanmıştır. Araştırma bulgularına göre proje tabanlı öğrenme yaklaşımlarının uygulandığı deney grubu öğrencileri kontrol gruplarındaki akranlarına kıyasla anlamlı düzeyde yüksek müzik dersi kazanımları, tutumları ve kalıcılık puanları elde etmişlerdir.

Anahtar Kelimeler: *Proje Tabanlı Öğrenme, Müzik Dersi, Ortaokul Öğrencileri.*

Introduction

The practice dimension of arts-based research in education is claimed to be a form of research that provides important perspectives for pedagogical and theoretical decision making. For this reason, recently, art-based research has been adopted not only in educational research, but also in project-based approaches in interaction with different fields such as medicine, commerce, science and engineering. Efforts to define the methods, nature, and principles of creative science have attracted more attention to the theorizing and rigor of such research. These discussions among scientists continue the interest in project-based learning in the arts (Keser & Naim, 2017).

The link that the artistic method will establish between disciplines as a method of acquiring knowledge and learning will make significant contributions to the acquisition of certain abilities envisaged at the end of the education-teaching process. In this context, the project-based learning approach constitutes an important basis for the formation of these goals. From this point of view, enthusiastic, entertaining and educational activities that bring together art, science and technology with an interdisciplinary cooperation approach can strengthen the art and design aspect of students that are missing in schools and create a positive change in their perspectives on school education (Küçükosman et al., 2021).

With project-centered studies, students use their creativity in art to reach new combinations, new thoughts from the known to the unknown, by revealing new results. In our study, questioning the model that expresses itself interdisciplinary, the importance of interdisciplinary art from the past to the present, examining the approaches to the effects of interdisciplinary art on art education, and seeking the opinions of art educators on the subject are stated as sub-objectives. In art education, an interdisciplinary approach is recommended as an integrative knowledge system and way of thinking (Aydoğmuş & Sünbül, 2015; Çalışkan et al., 2008; Öztütüncü, 2016); Reis, Barbalho, & Zanette, 2017). The main feature of this model is that it is built on a problem/scenario related to other disciplines and that students learn together in small groups based on student-centered learning. The student mainly engages in activities such as thinking, problem solving, creativity, access to information, processing, re-blending, questioning, and reconciliation within the lesson scenarios aimed at solving real problems, and spares time for both individual and team work (Sünbül, 2010).

PBL shows a learning process in which students work on the development of original projects and products (Kokotsaki, Menzies & Wiggins, 2016). Project-based learning (PBL) refers to an inquiry-based teaching method that incorporates knowledge into structuring by enabling students to carry out meaningful projects and develop real-world products (Brundiers & Wiek, 2013; Krajcik & Shin, 2014). Krajcik and Shin (2014). Project-based learning (PBL) is an active student-centered form of teaching characterized by student autonomy, constructive research, goal setting, collaboration, communication and reflection within real-world practices (Kokotsaki, Menzies & Wiggins, 2016). In project work, students obtain detailed information about the subject they are working on and organize the information they have acquired. The role of the teacher in this learning process is to manage and facilitate the process like an orchestra conductor. Project-based learning reveals very advanced cognitive skills (Çiftçi & Sünbül, 2006; Çiftçi, 2006). In this model, the teacher is helpful and directing, the student is autonomous and constructive, and at the end of each scenario, a realistic and student-developed product emerges (Kurnaz et al., 2005).

Project-based learning consists of three key concepts that have been carefully chosen to illustrate the form that education systems should take today. One of these concepts is the concept of learning, which is extremely important in terms of drawing attention to the learner, not the teacher. Another is the concept of project and project means design or design development, imagination, planning. This concept points to the understanding of projecting, that is, directing learning, and emphasizes relational learning for a specific purpose rather than singular learning (Erdem & Akkoyunlu, 2001; Kaşarcı & Sünbül, 2011).

Project-based learning is a comprehensive approach to classroom teaching and learning designed to involve students in the investigation of authentic problems (Phyllis et al., 1991). It has been studied in various contexts and at different stages of education, from primary to tertiary education (Grant and Branch, 2015; Holubova, 2008). PBL is often based on cross-cutting "design principles" regarding what is taught, how it is taught, and how students should be assessed in a PBL classroom. PBL design principles emphasize the importance of students as active participants in the construction of the project and knowledge as the central tool of instruction. There is little consensus among the developers of PBL design principles on how PBL fits into other teaching methods, how long a PBL unit should last, the roles of student selection and collaborative learning, and how learning should be evaluated (Hmelo-Silver, Duncan and Chinn, 2007; Hung, 2011).

Project-Based Learning Model is the right computer model, which motivates the active participation of the student, includes high-level cognitive activities, supports the use of a wide variety of tools and resources, handles lessons, social skills and life skills together. This model does not take the computer itself as a target and generally emphasizes the use of technology as a tool. It is also the basic teaching model of supported education applications. At the same time, Project-Based Learning is a teaching and learning model that aims to eliminate the problems caused by teaching the curriculum as a small chunk of independent information. This model focuses on the basic concepts and principles of one or more fields and covers the learning objectives of more than one course, if possible, within a course scenario (Demirel, 2004).

In a study by Chen & Yang (2019), the effects of PBL and teachers' direct instruction on students' academic achievement in primary, secondary, and higher education were compared. The results showed that PBL has a more positive effect on students' academic achievement than direct instruction (Blumenfeld et al., 1991; Helle, Tynjälä, & Olkinuora, 2006). However, it turned out that only 20% (6 out of 30) of the studies reviewed were conducted in higher education. There are six distinctive features of PBL, including focus on learning objectives, participation in educational activities, collaboration between students, use of scaffolding technologies, and creation of tangible works. Among all these features, the creation of authentic problem-solving works, which distinguishes PBL from other student-centered pedagogies, for example problem-based learning, is the most important (Blumenfeld et al., 1991; Helle, Tynjälä, & Olkinuora, 2006). This creation process requires learners to work together to find solutions to unique problems in the process of knowledge integration, application and construction.

In another study, Ralph (2015) reviewed fourteen studies that adopted PBL in STEM education. It has been revealed that PBL not only increases the development of learners' knowledge and skills, but also improves their cooperation and negotiation skills within the group (Reis, Barbalho, & Zanette (2017). Reis, Barbalho, & Zanette (2017) reviewed PBL studies in engineering education by adopting bibliometrics such as keyword analysis and classifying research methods from the studies reviewed. The bibliometric results, for example, showed that the first three keywords used were related to project-based learning, engineering education, and problem-based learning (Reis, Barbalho, & Zanette, 2017).

Positive effects were found regarding the use of the PBL curriculum in science (Bağcı et al., 205a; Çınar et al., 2005; Holubova, 2008; Marx et al., 2004) and social studies courses (Summers and Dickinson, 2012) (Wirkala and Kuhn,.2011), mathematics (Holmes and Hwang, 2016) and language classes (Campbell, 2012; Shafaei and Rahim, 2015) evidence is more limited (Belland, Glazewski and Ertmer, 2009). It has been noted that mathematics teachers in particular find it difficult to integrate PBL into their teaching. Some studies conducted in schools following PBL approaches have indicated positive effects on students' participation, motivation, and belief in their own efficacy (Kaldi, Filippatou and Govaris, 2011; Creghan and Adair-Creghan, 2015). Although the specific PBL model and the intensity of its use differ between schools, there is a consensus on its positive effects, especially for improving research skills and knowledge (Bağcı, 2005b; Creghan and Adair-Creghan, 2015; Gözüm et al., 2005; Grant and Branch, 2005). The application and development of PBL as a methodology not only increases motivation, attitudes and learning, but also supports the development of skills necessary for the 21st century (Bell, 2010; Petchamé, et al., 2020; Valls Pou, Canaleta & Fonseca, 2022).

The process steps in Project Based Learning can be summarized as follows:

1. Setting goals.
2. Identifying and defining the work to be done or the subject to be addressed.
3. Determination of necessary materials,
4. Formation of teams.
5. Determining the characteristics and presentation format of the final report.
6. Creation of the work schedule.
7. Determination of control points.
8. Determination of evaluation criteria and proficiency levels.
9. Collection of information.
10. Organizing and reporting information.
11. Presentation of the project (Demirel, 2004; Korkmaz, 2002; Helm, 2004; Preuss, 2002; Helm and Katz, 2000; Korkmaz and Kaptan, 2002; Moursund, 1999, Yılmaz and Sünbül, 2000).

To summarize, most of the studies reviewed in the literature are based on a quasi-experimental pretest-posttest design, in which some basic equivalences are established but the participants are not randomly assigned to the control and experimental groups, and as a result, a causal link cannot be established between PBL teaching and positive student outcomes (Petchamé et al., 2020; Valls Pou, Canaleta & Fonseca, 2022). In addition, it is thought that with the PBL approach, students' characteristics such as research, self-confidence, cooperation and responsibility, and socialization will be positively affected by the studies they have done both individually and in groups in music lessons. Again, it is thought that students will realize many learning products in cognitive, affective and psychomotor areas and gain gains with PBL supported music teaching. Experimental studies on project-based learning are reviewed with a focus on student outcomes. Affective outcomes (ie, perceptions of the benefits of PBL and perceptions of the PBL experience) were the most frequently performed studies and were generally measured using questionnaires, interviews, observations, and self-report-based measurement tools. In research on PBL, cognitive learning products (i.e. knowledge and cognitive strategies) and behavioral outcomes (i.e. skills and participation) have mostly been measured by questionnaires, rubrics, tests, interviews, observation, self-reflection logs, projects, and diary data (Guo et al., 2020). However, it has been observed that a limited number of project-based learning is given in art education in general and in music education in particular. In fact, project-based learning is effective and necessary for music education, which is connected to the real world, requires the use of many resources, is equipped with knowledge and skills, requires a certain process, and results in a final product, and is necessary for the whole school in terms of eliminating the difficulties encountered in music education. It is a method that music teachers should apply frequently. In fact, in the attitude and achievement towards the music lesson; He states that many factors such as socioeconomic environment, musical environment at home, class level, self-perception, gender, curriculum, teaching approaches and methods used, past experiences with music lessons, teacher-student relationship, motivation, and interaction with other students play a role (Philips, 2003; Yagiz and Sünbül, 2009). For this purpose, the effect of project-based learning on cognitive and affective learning products in secondary school 6th grade music lessons were examined in this study. In relation to this purpose, answers were sought to the following questions:

- To what extent do project-based learning practices in secondary school 6th grades affect students' achievements in music lessons compared to the activities carried out according to the MEB program?
- To what extent do project-based learning practices in secondary school 6th grades affect students' attitudes towards music lessons compared to the activities carried out according to the MEB program?
- To what extent do project-based learning practices in secondary school 6th graders affect the retention of what is learned in the

music lesson compared to the activities carried out according to the MEB program?

Method

In this study, the effect of the project-based learning approach applied in the 6th grade music lessons of the secondary school on the students' learning outcomes and their attitudes towards the music lesson was examined. Experimental design, one of the quantitative research methods, was used in order to generalize the results obtained in the study and to express them based on numerical data.

In this context, quasi-experimental design with pretest-posttest control group, which is one of the experimental design types, was used. As it is clear from the research problems, this project is an experimental study. However, the model of the study was determined as a quasi-experimental study, since it was not possible to randomly select the sample and assign to the groups. In cases where randomness cannot be achieved in experimental studies, semi-trial models can be used. The pattern used in this study is one of the semi-trial models. In this model, the experimental and control procedures of the study are applied to two groups selected as equal to each other. Within the framework of the design based on the hypothesis, 2 groups of students were studied as the experimental group (24 students) and the control group (24 students). In the study, the 6th grades in the secondary school, whose research permission was obtained in the 2021 fall semester, were screened when students were assigned to the experimental and control groups, and two equivalent classes were selected as the experimental and control groups. In the experimental group, music lessons were taught with project-based activities, while in the control group, activities were carried out on the basis of the teaching practice of the Ministry of National Education. Teaching activities were carried out by the same music teacher in both groups. The independent variable of the research is project-based teaching activities. The dependent variables of the research are the students' music lesson achievements and their attitudes towards the music lesson. In order to determine the equivalence of the students and groups in the experimental group before the research in the experimental and control groups, the final grades of the previous semester were taken into account. Music lesson acquisition test and attitude scale towards music lesson were applied to the students in the experimental and control groups before (pre-test) and after (post-test) the research. The experimental design used in the research is presented in Table 1.

Table 1. Research method/design

Groups	Pre-test	Practice	Post-test		Permanence
Experimental Group	• Music Lesson Achievement Test • Music Attitude Test	Project Based Learning (6 Week)	• Music Lesson Achievement Test • Music Attitude Test	2 Week Break	• Retention Test
Control Group	• Music Lesson Achievement Test • Music Attitude Test	Ministry of National Education Teaching on the Basis of Music Lesson Curriculum (6 Week)	• Music Lesson Achievement Test • Music Attitude Test		• Retention Test

Experimental and Control Groups

The research was carried out in the 6th grades of a private secondary school in Mersin in the 2021-2022 academic year. Factors such as the school's administrators' permission to research, the school teachers' inclination to research processes, the suitability of the school environment for practice, the equal academic and socio-economic status of the students, and the willingness of the teachers and students to research were effective in the selection of the groups in the research process. In order to determine the experimental and control groups of the research, attention was paid to the general academic achievement of the students studying in all branches of secondary school in the previous academic year, their scores in music lessons, the observations of the instructors, the results of the music lesson practice exams and the distribution of the classes according to the gender variable. Two 6th grade groups, equivalent to each other in terms of all these variables, were determined for the applications in the experimental methods of the research. These two branches were then randomly assigned as the experimental and control groups. The distribution of the experimental and control groups according to gender, achievement and pre-test scores is shown below.

Table 2. Distribution of Students in Experimental and Control Groups

Groups	Female	Male	Total
(Experimental Group)	12	10	22
(Control Group)	11	11	22
Total	23	21	44

As seen in Table 2, there are 12 girls and 10 boys in the experimental group of the study, and a total of 22 students, 11 girls and 11 boys, in the control group. 4 students in the experimental group and 5 students in the control group take special musical instruments courses.

Considering the professional background of the instructor who carried out the activities in the experimental and control groups in the research, he has 13 years of educational experience in primary, secondary and high school classes. During the implementation of the research, permissions were obtained from the teacher, the parents of the students, and the authors who developed the attitude scale towards the music lesson via e-mail.

Experimental Procedure and Program Implementation

The experimental process for the experimental and control groups lasted for six weeks. Lessons continued in 90-minute segments. In total, a 12-hour training program was applied to the experimental and control groups. In the first week, all necessary explanations about the project were made to the experimental group, and all students were informed about how long it would take and how it would be evaluated. It was also stated to the participants that the results would be used for research purposes only.

At the beginning of the experimental process of the research, the 6th grade music acquisition test and the attitude scale towards music were applied simultaneously to the experimental and control groups as a pre-test. The distribution of the relevant training program applied in the experimental and control groups after the pretests by weeks is as follows: The activity of recognizing the instruments used in the environment. In this context, students are surrounded by stringed (saz/bağlama, lute, law, tanbur, cümbüş, violin, etc.), wind (pump, flute, ney, tulum, etc.), percussive melody (santur, xylophone, metallophone, etc.), percussion and non-percussive. They scanned and introduced instruments (kudum, def, drum, spoon, cymbal, darbuka, castanyet, bendir, maracas, arbena, etc.) from internet sources. Students did practical activities about how these instruments are used. These two events lasted 3 weeks. Within the scope of the experimental procedures, in the 3rd and 4th weeks, the students performed the activity "Animating the events in the story they listened to using different materials, listening to music appropriate to the environment and exhibiting behaviors". In the 5th and 6th weeks in the groups, an activity was carried out to develop music taste and culture by listening to different types of music.

In summary, the experimental group performed the following steps of the project-based learning approach:

- Determining the objectives, determining and defining the work to be done or the subject to be discussed.

-Determining the necessary materials,

- Creation of teams and creation of work schedule.

-Determination of control points. Determination of evaluation criteria and proficiency levels. Collection of information.

-Determining the features and presentation format of the final report. Organizing and reporting information.

-Presentation of the project

The students in the control group, on the other hand, studied the same subjects in line with the achievements and instructions of the 5th grade music curriculum of the Ministry of National Education. At the end of the experimental procedures of the research, the 6th grade music lesson achievement test and the attitude scale towards the music lesson were applied to the experimental and control groups as a post-test on the same day. 15 days after the application of the posttest, the music lesson achievement test was applied to both groups to obtain retention measurements.

Survey Tools Used in the Research

In this study, 6th grade music lesson achievement test and attitude scale towards music lesson were used to collect data. Detailed information about these tests and scales is given below.

Secondary School 6th Grade Music Lesson Achievement Test: This is a multiple choice test (with 5 options) developed by the researcher to determine the achievements of 6th grade music lessons. In order to develop the test, the opinions of three experts, 2 academicians from the Music Teaching Department and 1 music teacher working in secondary schools, were consulted. Questions related to the achievements of the Secondary School Music Lesson Curriculum were prepared and presented to the opinions of the expert participants. In this context, 30 questions were included in the test with the approval of the experts. On the application results of the test, correct answers were scored as 1, whereas wrong answers were scored as 0. KR-20 reliability, item difficulty (pj), item standard deviation and item discrimination analyzes were performed on the pilot application data carried out before the research. As a result of the item analysis of the instrument recognition test, it was observed that the difficulty level ranged between 0.63 and 0.87. According to this finding, it was seen that the items in the instrument recognition test were perceived relatively easily by the students. In addition, the discrimination indices of the items in the acquisition test were calculated. This coefficient is important for the validity and distinctiveness of the items in the test. On the other hand, according to Yurt and Sünbül (2012), item discrimination coefficients should be 0.30 and above in an ideal test. According to the analyzes, the discrimination coefficients of the items in the music recognition test were found to be between 0.36 and 0.57. It can be said that this 5th grade acquisition test and its items have high discrimination. The KR-20 reliability of the music acquisition test was calculated as .89. This finding shows that the 6th grade music acquisition test has high internal consistency and reliability.

Attitude Scale Towards Music Lesson: In the study, the attitude scale developed by Öztürk and Kalyoncu (2014) was used to determine the feelings, thoughts and tendencies of the 5th grade students about the music lesson. In the factor analysis of the scale, it was seen that the scale was unidimensional and explained 46% of the total variance. The developed scale consists of a 47-item 5-point Likert-type attitude question. The answers given to the questions range from positive to negative according to the options "strongly agree (5)", "strongly agree (4)", "partially agree (3)", "little agree (2)", "strongly disagree (1)" rated. For negative question roots, scoring was done in reverse. In order to determine the reliability of the scale, the Cronbach Alpha reliability coefficient was calculated and found to be .86. Analyzes on the scale show that the scale is valid and reliable. The lowest score that can be obtained from the scale is 25, and the highest score is 125. The closeness of the total score obtained from the scale to the highest-end score indicates the high level of positive attitude, and the closeness to the lowest-endpoint-point indicates the highness of the negative attitude. In addition, the scores obtained from the scale can be divided by the number of questions and statistical operations can be performed with the attitude score average.

Application and Evaluation of Tests: In the study, the secondary school 6th grade music lesson achievement test and the attitude scale towards the music lesson were applied to the experimental and control groups three times to take pretest, posttest and retention measures. In addition to the course teacher, the researcher took part in the test applications as a supervisor. A time of 2 lesson hours was given for the application of the test. In practice, it was observed that the time was sufficient. It was ensured that the students came to the lessons regularly on the practice days, and the test-taking was completed during the lesson hours following the end of the experimental applications.

Quantitative Data Analysis Techniques

The data obtained from the research were analyzed using the SPSS (Statistical Package for Social Sciences) for Windows 25.0 program. Before analyzing the research data, it was tested whether it met the assumptions of normal distribution. The conformity of the data from the music lesson attainment test and the attitude scale towards the music lesson to the normal distribution was evaluated with the Shapiro Wilk test. According to Shapiro Wilk analysis, it was seen that the pretest-posttest data of the music lesson achievement test and the attitude scale towards the music lesson did not meet the assumptions of normal distribution. For this reason, Non-Parametric statistical techniques were used in the analysis of the research data. In this context, Mann Whitney U and Wilcoxon test techniques were used.

Findings

Table 3. Comparison of Music Lesson Achievement Test Pretest Scores of 5th Class Students

	Group	N	Mean Rank	Sum of Ranks		
Pretest	Experimental Group	20	20,20	404,00	-0,659	0,510
Achievement	Control Group	22	22,68	499,00		
	Total	42				

Table 3 shows the results of the comparison of the music lesson achievement pretest scores of the 5th grade secondary school students according to the experimental control groups. According to the Mann Whitney U test analysis, a Z value of 0.569 was calculated between the music lesson achievement pretest scores of the two groups. According to these findings, no significant difference was found between the pretest scores of the experimental control groups. At the beginning of the experimental process of the research, it was observed that the participants in the experimental and control groups had an equivalent level of musical attainment.

Table 4. Comparison of Music Lesson Achievement Test Posttest Scores of 5th Grade Students

	Group	N	Mean Rank	Sum of Ranks		
Posttest	Experimental Group	20	26,53	530,50	-2,541	0,011
Achievement	Control Group	22	16,93	372,50		
	Total	42				

Table 4 shows the results of the comparison of the music lesson achievements posttest scores of the 5th grade secondary school students compared to the experimental control groups. According to Mann Whitney U test analysis, 2,541 Z value was calculated between the music lesson achievement posttest scores of the two groups. According to this finding, a significant difference was found between the posttest scores of the experimental control groups. In the study, it was observed that the students in the experimental group achieved significantly higher music lesson achievement score rankings.

Table 5. Comparison of 5th Grade Students' Attitude Scale Pretest Scores Towards Music Lesson

	Group	N	Mean Rank	Sum of Ranks		
Pretest Achievement	Experimental Group	20	18,60	372,00	-1,647	0,099
	Control Group	22	24,14	531,00		
	Total	42				

Table 5 shows the results of the comparison of the pretest scores of the 5th grade secondary school students for the music lesson compared to the experimental control groups. According to the Mann Whitney U test analysis, a Z value of 1.64 was calculated between the two groups' attitude scores towards the pretest music lesson. According to these findings, no significant difference was found between the pretest attitude scores of the experimental control groups. At the beginning of the experimental process of the research, it was seen that the attitudes of the participants in the experimental and control groups towards the lesson were equal and moderate.

Table 6. Comparison of 5th Grade Students' Attitude Scale Posttest Scores Towards Music Lesson

	Group	N	Mean Rank	Sum of Ranks		
Posttest Achievement	Experimental Group	20	28,03	560,50	-3,363	0,001
	Control Group	22	15,57	342,50		
	Total	42				

Table 6 shows the results of the comparison of the posttest scores of the 5th grade secondary school students' attitudes towards the music lesson compared to the experimental control groups. According to Mann Whitney U test analysis, a Z value of 3.363 was calculated between the posttest attitude scores of the two groups. According to this finding, a significant difference was found between the posttest attitude scores of the experimental control groups. In the study, it was seen that the students in the experimental group achieved a significantly higher level of attitude score rankings towards the music lesson.

Table 7. Comparison of 5th Grade Students' Music Lesson Outcomes Retention Test Scores

	Group	N	Mean Rank	Sum of Ranks		
Retention	Experimental Group	20	25,63	512,50	-2,082	0,037
	Control Group	22	17,75	390,50		
	Total	42				

Table 7 shows the results of the analysis performed on the retention test scores of the participants in the experimental and control groups, administered 15 days after the posttest. According to the Mann Whitney U test analysis, a Z value of 2,082 was calculated between the retention test scores of the two groups. According to this finding, a significant difference was found between the retention test scores of the experimental control groups. In the study, it was seen that the students in the experimental group achieved a significantly higher level of music lesson retention score rankings.

Discussion, Conclusion and Suggestions

When the post-test music achievements between the groups in which the project-based learning method was applied and the groups in which the current curriculum of the Ministry of National Education was applied were examined, significant differences were found in favor of the experimental group in which the project-based learning method was applied. The students in the experimental group got higher scores than their peers in the experimental group in terms of knowledge, comprehension, application, and analysis-synthesis level gains. These findings include Bağcı (2005), Campbell (2012), Holubova (2008), Holmes and Hwang (2016), Marx et al. (2004), Shafaei and Rahim (2015), Summers and Dickinson (2012), and Wirkala and Kuhn (2011) are similar to the findings of their research. According to Paul, Binker, Martin, and Adamson (1995), the project-based learning approach provides children with the opportunity to question and recognize the world with their own potentials and abilities, so that children with different talents (such as mathematical, verbal, musical) can reach the highest level in accordance with their individual characteristics. level of inclusion in education. This situation also contributes to the realization of multi-faceted gains in art classes. In the project approach, it is aimed to increase the knowledge and experience of children on a selected subject in depth through active participation methods. Students develop their skills on an interdisciplinary learning basis by participating in and implementing projects.

According to another finding of the research, it was observed that students' attitudes towards music lessons improved as a result of the project work. Participating students got significantly higher posttest attitude scores than their friends in the control group. These findings are similar to the research findings of Akın (2016), Çiftçi (2006), Kaşarcı (2013), Korkmaz and Kaptan (2002), Kucharski et al. (2005), Toci (2000) and Valls Pou, Canaleta and Fonseca (2022). A good learning-teaching environment shows students how to learn, how to use and integrate knowledge into life, how to think, how to develop interests and skills. In this context, the approaches to be used in the learning-teaching environment should aim to develop the student as a whole. Students will be successful in the lessons they are happy, actively participating in the learning-teaching process, and adopting (Korkmaz & Kaptan, 2002). In this context, the project-based learning approach, which includes very rich activities, contributed to the students' development of positive attitudes towards music.

The last finding of the research is about the music learning permanence of the 5th grade students at the end of the project-based learning application. According to the research findings, students in the experimental group achieved significantly higher music learning permanence compared to their peers in the control group. These findings are similar to the research findings of Alioğlu (2014), Çınar et al. (2005), Çiftçi (2006), Çiftçi and Sünbül (2006), Kaşarcı and Sünbül (2011) and Uzun (2007). According to Diffily and Sassman (2002), students experience a learning experience where every knowledge and experience they gain with motivation and enthusiasm can equip them with permanent learning and life skills. It is known that project-based group work also positively supports social communication, empathy and many affective learning products. In addition, it is the basic teaching model of direct "computer-assisted education" applications, emphasizing the use of technology as a tool in education. From the perspective of the students' roles in the project work, during the project work, the students use all the knowledge they have gained so far, they come up with some ideas individually and as a group, they decide which topic, which method they can work on, which member in the group can do what, and how they will share what they have learned with others. All these activities increase their learning permanence. Similarly, Sezgin (2008) stated in his research that "Students' knowledge increases, their ideas about the project-based learning approach change, they work harder when compared to other courses, they are active, they acquire more information, and they think that the information learned in this way is more permanent, learning by rote rather than rote learning. It has been concluded that they have the opportunity to research the subjects that fall within their fields of interest.

As a result, it has been observed that project-based teaching practices in secondary school music lessons have significant and positive effects on students' course achievements, attitudes and learning persistence. In addition, according to the observations of the researcher, the activities on the basis of project-based learning saved the students from the understanding of education that tried to fill too much information in the minds of the students, provided the students with the research processes, the multi-faceted perspective on music, the life models of musicians, sharing and solidarity with peers, and the satisfaction of creating products for students. In this context, based on the results of the study;

- The presence of project corners in music classes and the provision of necessary equipment in the project workshops will contribute to the effective implementation of this approach.
- While the project activities are being implemented, the music course curriculum and the course hours to be allocated to the projects should be prepared by considering the duration of the process steps of the projects. A suitable environment should be prepared in the project workshops for students who cannot complete their project within the prescribed time intervals and students should be directed to these workshops.
- Adequate infrastructure regarding the approach should be provided for students and teachers in music lesson practices to be carried out according to the project-based learning method.
- It is recommended that music lesson teachers make their studies an interdisciplinary structure by getting help from other teachers in the studies they carry out according to the project-based learning method.
- Since the project-based learning method applications require a long time, the weekly lesson hours of the music lesson are insufficient in terms of realizing the gains of the lesson. In this context, the course hours can be increased during the implementation of this approach.
- Finally, this study was carried out with an experimental model, students' perceptions and expectations about project-based applications; It is recommended to conduct qualitative and mixed-model studies using observation and product evaluation techniques to test the quality of learning products.

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RESEARCH ARTICLE

The Effect of Municipal Employess' Job Crafting on Job Engagement

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Abstract

Today, the impact of rapidly changing information and technology can be seen in the workplace. In this rapid change process, the human resources of organizations should be managed correctly and effectively. Today's economic conditions show that the most important resource in both private and public institutions is human resources. In order for employees to be successful and feel happy, job and employee harmony should be ensured, employees should be employed in jobs that are suitable for their personal characteristics, values and beliefs. Municipalities that provide a public service aim to prevent problems before they arise in the service process and to provide quality service. For this, employees who can show proactive behaviour are needed. In this study, the quantitative research method has been preferred to measure employee behaviours, and the job crafting scale and job engagement scale have been used. Data have been collected through questionnaires from 207 participants among the employees of the district municipality within the borders of Kocaeli Province. Demographic characteristics such as age, gender, educational status and institutional seniority of the sample have also been reported in the survey. According to the study's findings, job crafting has a positive impact on job engagement, cognitive crafting has a positive impact on job engagement, and relational crafting has a positive impact on job engagement The SEM results have shown that each hypothesis (H1, H2, and H3) have been accepted.

Keywords: *Job Crafting, Job Engagement, Employee Behavior, Municipal Employees.*

Öz

Günümüzde hızla değişen bilgi ve teknolojinin yarattığı değişim, etkisini çalışma hayatında güçlü bir şekilde göstermektedir. Bu hızlı değişim sürecinde örgütlerin insan kaynakları doğru ve etkin bir şekilde yönetilmelidir. Günümüz ekonomik koşulları gerek özel gerekse kamu kurumlarında en önemli kaynağın insan kaynağı olduğunu göstermektedir. Çalışanların başarılı olmaları ve kendilerini mutlu hissetmeleri için iş ve çalışan uyumu sağlanmalı, çalışanlar kişisel özelliklerine, değerlerine ve inançlarına uygun işlerde çalıştırılmalıdır. Kamusal bir hizmet sunan belediyeler, hizmet sürecinde sorunları çıkmadan önlemeyi ve kaliteli hizmet sunmayı hedeflemektedir. Bunun için proaktif davranış gösterebilecek çalışanlara ihtiyaç bulunmaktadır. Bu çalışmada çalışan davranışlarını ölçmek için nicel araştırma yöntemi tercih edilerek iş becerikliliği ölçeği ve işe tutkunluk ölçeği kullanılmıştır. Kocaeli İli sınırları içinde yer alan ilçe belediyesi çalışanları arasından 207 katılımcıdan anket aracılığıyla veri toplanmıştır. Ankette ayrıca örnekleme ait yaş, cinsiyet, öğrenim durumu ve kurum kıdemi gibi demografik özellikler de raporlanmıştır. Araştırma sonuçlarına göre, görev becerikliliği işe tutkunluğu, bilişsel beceriklilik işe tutkunluğu ve ilişkisel beceriklilik işe tutkunluğu pozitif yönde anlamlı etkilediği sonucu elde edilmiştir. SEM sonuçlarıyla da her bir hipotezin (H_1, H_2, H_3) doğrulanmıştır.

Anahtar Kelimeler: *İş Becerikliliği, İşe Tutkunluk, Çalışan Davranışı, Belediye Çalışanları.*

Introduction

Employees' ability to reflect on their personal characteristics and abilities on the job they do in a suitable work environment is referred as job crafting. Every employee is in a unique physical, cognitive, and psychological state. Employees can devote themselves fully to their work if they believe their job is meaningful and their working environment is comfortable. The extent to which employees devote themselves to their jobs can be linked to job engagement. Employees are more engaged at work when they see that the work they do is compatible with their own values and the values of the organization, and when they believe that they are important to the organization. (Meng et.al., 2011, qtd in Yemenici and Bozkurt 2020, p.19). Job crafting is based on the job design and job requirements/resources model. Job design theory is based on the condition where employers reorganize and redesign their job according to their preferences. In another respect, it is possible that the way the work is done is not from the top down, but also from the bottom up with alternative work design. "Job crafting" is defined as the efforts to achieve a balance between job specifications and available resources Tims and Baker, 2010, p.3).

In order for employees to reflect their personal features and abilities completely on the job, proper conditions and environment must be provided. The reasons for how employees behave consist of their needs, beliefs, and urges. If their motivation is improved, they may present effective behaviours. Motivation focuses on employees' job engagement. In environments where labour and technology are at an extensive level instead of ensuring productivity only with technology, human behaviour must be understood well, and motivation must be kept high. An employee is a part of the organization, and they have a significant role in the success of the organization. It has been realized that job crafting and job engagement, determined as the variables of the study, are related to the following notions in literature: Job engagement, job creation, job satisfaction, employee engagement, awareness and job performance (Beer et al. 2016, p. 400; Ahuja and Chaturvedi, 2017, p.106; Chen at al., 2014 p.21; Morrow and Conger, 2018, p.1; Sakuraya, et al. 2017, p.1; Tims, et al., 2015, p.914). In the public sector, there are not many studies examining the relationship between job crafting and job engagement. From this point of view, the variables of the study have been determined to be job crafting, cognitive crafting, and job engagement. It is believed that with this study, the relationship between job crafting, cognitive crafting, relational crafting, and job engagement in public sector can be established which will fill the gap in national literature.

Conceptual Framework

Job Crafting

Kulik introduced the concept of "job crafting" for the first time. Job crafting is a proactive behaviour (Kulik et.al. 1987, qtd in Aslan and Güzel, 2020, p.437). It is a proactive attitude which an employee presents to change the cognitive, emotional, relational, and physical obstacles in relation to their job (Rastogi and Chaudhary, 2018, p.657). The fact that an employee settles their activities, the way they do the job, and the number of the things they do in their own way and altering the social environment where the job is done while doing their work is defined as determining the relational boundaries. The reflection of job crafting on the job prevents the work from becoming routine by developing a harmony between job requirements and personal features, abilities and preferences, or allows the way the work is done change for the job to be done in a better way (Wrzesnewski and Dutton, 2001, p.180; Berg et al., 2008, p.3).

Employees perform their daily jobs with three different skills to achieve the organization's goals. These are job crafting, relational crafting, and cognitive crafting. *Job crafting:* This means that an employee makes physical changes related to their job. Employees may make alterations in their jobs in the way they would be related to each other. When employees connect their duties with other employees' duties, this creates some changes in the relationship and interaction among the employees. Besides these changes, employees can reduce their duties by transferring them, or by simply blowing off in some businesses (Tims et.al., 2013; Obodo, 2018, qtd in Ghaniet.al., 2019, p.6). *Cognitive Crafting:* This occurs when employees' perception of the job and the way they are identified with the job change. In other words, it is the fact that employees who work positively and proactively give meaning to their job in a positive cognitive way (Tims et. al., 2013; Obodo, 2018, qtd in Ghani et.al., 2019, p.6). *Relational Crafting:* This concerns an employee's attempt to make relational changes. In other words, it is the fact that they make alterations in the relations they have with their colleagues and in the boundaries of their interaction (Tims et.al., 2013; Obodo, 2018, qtd in Ghani et.al., 2019, p.6). It has been observed that job crafting leads employees who are not satisfied with their job to have more work engagement (Wrzesniewski, et.al., 2013, qtd in Ghani et.al, 2019, p.6). Feedbacks coming from the employees based on job crafting either improve job crafting or prevent it (Van Wingerden et al., 2017, p.165).

With job crafting, it is possible to focus on different aspects of employees' jobs. In the most general sense, job crafting is making alterations in the duties of the employees by containing both evolvement and confinement in terms of relational and cognitive aspects. It is important for organizations to be aware of their employees' state of job crafting to improve performance and to make them stay in the organization (Bruning and Campion, 2019, p.625). Job crafting has positive effects in terms of both employees and organizations. It is predicted that there will be positive consequences, while from an employee's point of view the positive consequences will be person-job harmony, job satisfaction, work engagement, from the organization's point of view, they will be commitment to the organization, high level of performance, decline in the labor turnover rate (Tims and Baker, 2010, p.9). In literature there are studies where the notion of job crafting is associated with such terms as follows; job crafting and work engagement (Bakker et al., 2012, p.1359); job crafting-job significance (Berg et al., 2013, p.81); job crafting-job performance (Tims et al., 2015, p.914); career competences and job crafting (Plomp et al., 2016, p.587); job crafting and motivation (Lichtenthaler and Fischbach, 2016, p.477); manager job crafting job commitment (Akçakanat et al., 2019, p.395); job crafting boredom at work (Kerse, 2019, p.531); reformer leadership job crafting (Kerse and Babadag, 2019, p.133); job control orientation meaningfulness of the job (Seçkin, 2019, p. 889); job crafting and job satisfaction (Kerse, 2019, p.205); proactive personality job crafting (Albert, 2020, p.1); job crafting innovative behaviour (Çakıroğlu et al., 2021, p.1467).

Job Engagement

"Engagement" is characterized by the Turkish Language Society as the state of being passionate and heart-focused. According to this definition, job engagement occurs when an employee is devoted to and passionate about their Job engagement is defined as the consciousness satisfying the employee's positive behavior (Schaufeli, 2002, qtd in Harputluoğlu and Dönmez, 2017, p.407). Job engagement is based on the theory of psychological conditions. Kahn's (1990) discussion of the theory is grounded on Goffman's (1978) Role Theory. An employee's attitude and behaviors are influenced by their job's psychological experience. Job engagement influences experiences with individual, dec-individual, group, intergroup, and organizational elements all at the same time. It is the act of expressing both oneself and one's experience of what one needs to experience at the same time while working. It is the act of expressing herself and what she needs to experience at the same time while working. (Başoda, 2017, p.74). In other words, it can be expressed as the condition where employees reflect their relations, thoughts, and emotions by empathizing with employees in a physical, mental, and spiritual context. Employee satisfaction underpins the notion of job engagement. Job satisfaction causes employees' productivity to improve by ensuring an effective working environment (Meriç and Babur, 2002, p.813).

Employees who are passionate about their jobs have an energetic and effective relationship with their jobs (Agin, 2010, p.109). Organizations having passionate employees may obtain a competitive advantage in terms of reaching their goals (Armstrong, 2008, qtd in Harputluoğlu and Dönmez, 2017, p.437). In order for employees to have more job engagement, there needs to be a harmony between the employee and the job. For this, employees must be provided with a convenient working environment. In literature, there are studies where the notion of job engagement is associated with many concepts as follows; intrapreneurship and job engagement (Bozkurt, 2018, p.377); passion for working and work life balance (Topaloğlu et al., 2019, p.59); job engagement and selfhood perception (Yemenici and Bozkurt, 2020, p.18); job crafting and job satisfaction (Kerse, 2019, p. 205); job engagement and subjective well-being (Bolelli, 2019, p.247).

The Relationship between Job Crafting and Job Engagement

Success of the organizations depends on whether employees reflect their abilities fully on their work or not. However, the level of one's performance does not improve only with job crafting. Reasons for employees' behaviours are their needs, beliefs, and urges. The employee must be made to believe and be motivated. Job engagement has a positive meaning. Increase in the employees' motivation can be achieved by providing the suitable working environment and conditions. Motivation basically concentrates on employees' attitudes towards their jobs. In environments where labour and technology are at an extensive level, it is not possible to maintain productivity only with technology. It is necessary to understand human behaviour well and keep motivation high. It can be said that success of the organizations depends on the fact that employees are understood that employees are worked in environments which are suitable for their qualities, and that convenient working environments are provided. When employees change their jobs proactively in accordance with their personal traits, this increases personal performance and job satisfaction. Besides, sense of organizational commitment of innovative employees who can reflect their abilities on their jobs also increases. In such a case, it is possible to achieve harmony between personal goals and organizational goals and to achieve organizational success. (Küsbeci, 2022, p.53). Job crafting defined as employees' making personal changes and arrangements in their jobs improves the way employees focus on their work physically and mentally, concentrate on the job, and increases their job engagement (Tims et.al 2010, p.3).

Methodology

Aim and Scope of the Study

Municipalities that provide public services strive to prevent problems from occurring and to provide high-quality service. To accomplish this, they require proactive employees with a business-creation mindset. Encouragement of employees to apply their job skills to their work can be said to be effective in increasing job engagement, productivity, and job satisfaction. In this respect, the purpose of this study is to investigate the effects of job crafting, cognitive crafting, and relational crafting on work engagement. Work will be effective in increasing job engagement, productivity, and job satisfaction. In this respect, in this study it is aimed at identifying the effect of job crafting, cognitive crafting, and relational crafting on the job engagement by handling it in terms of public space.

Hypotheses of the Study

Employees who reflect their job crafting on their job are able to make changes or arrangements in the job's requirements and resources while on the job and during the job process. (Tims and Bakker, 2010, p.3). Personal effort and preference may result in job engagement. In other words, it is related to doing the job eagerly, with dedication, and focus. (Çankır, 2016, p.770). To achieve their goals, most people try to change their jobs and job processes. These behavioral changes may enable them to be more useful to themselves and their organizations. Job crafting is based on employees' job satisfaction and devotion to the job, and this situation has a positive impact on their dedication to the job and performance (Küsbeci, 2021, p.99). Job crafting behaviors enable employees to deal with their jobs in a dynamic manner. This situation motivates them to act with a strong sense of commitment to the job (Van Wingerden and Poell, 2017, p.3). When literature is analysed, the hypotheses prepared according to the purpose of the study have been given below, and goal-oriented research method has been shown in Figure 1.

H1: Job crafting has a positive and significant impact on job engagement.

H2 Cognitive crafting has a positive and significant impact on job engagement.

H3: Relational crafting has a positive and significant impact on job engagement.

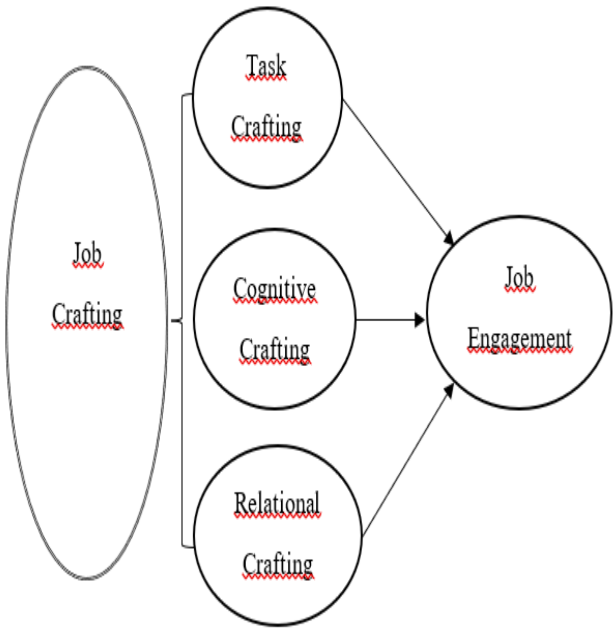

Figure 1. Research Model

Population and Sample Group

In our study, the relational screening model which examines the relationships and connections has been used because the aim is to identify the relationships between the variables. Data have been collected by forming surveys for the method chosen. The population of the study consists of the municipality employees in Kocaeli. There are different opinions about whether the size of the sample is acceptable or not (Büyüköztürk, 2002, p.480). According to the general view, the number of the sample is five times larger than the number on the survey (Aksu et.al., 2017, p.26).

The convenience sampling method has been used to include volunteer participants in the research. 225 of the 250 surveys distributed for the study have been returned. The surveys have a 90% response rate. Nine surveys have not been included in the study because they have not been not completed. In addition, 8 surveys have been excluded from the study due to a lack of data. There are 207 people who have taken part in the analysis.

Every research project has constraints. The size of the sample, voluntary participation, and financial constraints are the constraints of this research.

Data Collection Tools

In the social sciences, surveys are a common data collection tool. The goal is to collect data from the target group in a systematic manner in order to test the hypotheses developed to solve the research problem (Altunışık et.al., 2010, p.68). In the survey form created for the measurement of variables which are included in the research, there are four-dimensional 25 subjects. In the first part of the survey, there is the scale of task crafting as the sub-dimension of job crafting, in the second part there is the scale of cognitive crafting as the sub-dimension of job crafting, in the third part there is the scale of relational crafting as the sub-dimension of job crafting, and in the fourth part there is the scale of job engagement. In the scales, 5-point likert scale has been used. While the lowest agreement statement is "completely disagree.", the highest agreement statement is "completely agree". For the application of the survey of this, ethics committee permission was given by Kocaeli University Social and Human Sciences Ethics Committee with the decision dated 23.01.2022 and numbered E. 175813. At the end of the survey, there are questions based on the demographic features (gender, marital status, working year in an institution, age, and educational status) of the participants. Information related to the scales used in the research has been stated below.

Job Crafting Scale: Slemp and Vella-Brodrick (2013) developed the Job Crafting Scale, which includes 19 subjects and three sub-dimensions. The scale developed by Slemp and Vella-Brodrick (2013) and adapted into Turkish by Kerse (2017) was used in the research. For the whole of job crafting scale, cronbach alpha coefficient is ,918, for task crafting cronbach alpha is ,757, for cognitive crafting cronbach alpha is ,860, and for relational crafting cronbach alpha is ,844.

Table 1. Job Crafting Scale Cronbach Alpha Coefficient

Scale	Cronbach Alpha Coefficient
Job crafting scale	,918
Task crafting	,757
Cognitive crafting	,860
Relational crafting	,844

Job Engagement Scale: In order to measure the level of work engagement, short version of Utrecht Work Engagement Scale which was developed by Schaufeli et al. (2006) and which consists of 9 items were adopted to Turkish by Eryılmaz and Doğan (2012) and Özkalp and Meydan (2015). In the study, a six-point short form which is a suggested alternative version of the adapted one by Güler et al. (2019) has been used. In the adaptation practice it has been identified that for the six-point form of the scale Cronbach Alpha reliability coefficient is α = ,93 (Güler et al., 2019).

Data Analysis

Descriptive statistics related to the demographic features belonging to the sample group included in the research have been given in Table 2. Among the participants, 95 (%45,9) are male, 112 (%54,1) are female. About the marital status while the number of married participants is 132 (%63,8), the number of single participants is 75 (%36,2). About the age group, while the highest number of participants is between the ages of 35-40 (n=55; %26,6), the lowest number of them is at the age of 48 and above (n=27; %13). About the term of employment in the institution, maximum is between 5-10 years (n=67; %32,4), minimum is between 0-1 year (n=28; %13,5). About education, the highest educational status is high school (n=101; %48,8), the lowest is bachelor and above (n=50; %24,2).

Table2. Distribution of Participants by Demographic Characteristics

Variable	Group	Number (f)	Percent (%)	Variable	Group	Number (f)	Percent (%)
Gender	Male	95	45,9	Working Time	0-1	28	13,5
	Female	112	54,1		2-4	64	30,9
Marital Status	Married	132	63,8		5-10	67	32,4
	Single	75	36,2		11 and above	48	23.1
Age	20-26	35	16,9	Education	High School	101	48,8
	27-33	50	24,2		Associate Degree	56	27,1
	34-40	55	26,6				
	41-47	40	19,3		Bachelor and above	50	24,2
	48 and above	27	13				

Before testing the model of the research, whether the data is suitable for the normality hypothesis and whether it is scattered homogenously or not have been evaluated. In this respect, a normality test has been applied to the data for normality hypothesis. According to Kline (2016), if the value of skewness and kurtosis is between ± 3,0, it means that the data shows a normal distribution. According to the results of the analysis, it has been realized that skewness and kurtosis values of Job Crafting Scale sub-dimension are 1,349/1,982, skewness and kurtosis values of Cognitive Crafting Scale's sub-dimension are; -,647/-,416, skewness and kurtosis values of Relational Crafting's sub-dimension are; -,861/,994; skewness and kurtosis values of Job engagement scale are; -,759/,580. Furthermore, it is possible to indicate that the data values are within the limits set. As a result, it has been determined that parametric tests can be used in data analysis. The data have been analyzed using the IBM SPSS 20 and AMOS 24 programs. The significance level used in the analyses has been accepted as 0,05.

Findings

Due to the fact that the scales used in the study have been adopted into Turkish, and Explanatory Factor Analysis (EFA) has been applied before, at the beginning of the analyses Confirmatory Factor Analysis (CFA) has been conducted. It is aimed at validating the structure acquired in each scale's EFA by applying the maximum likelihood method in CFA. The items whose factor load value is below 0.5 (Tabachnick and Fidell, 2019) have been eliminated from the analysis one by one starting with the ones which has the lowest value. Each time, CFA has been repeated. According to the final CFA result, items 1, 4, 5, and 3 from Task Crafting sub-dimension, items 8 and 9 from Cognitive Crafting sub-dimension, items 16, 18, and 19 from Relational Crafting sub-dimension, and items 5 and 6 from Job Engagement Scale 5and 6. have been eliminated. The structures of the scale have been validated with the fit value suggested by Kline (2016). Of the indicated values, the "absolute fit value" (χ2/df) is denoted by the "mean square of the approximation error" (RMSEA), the "comparative fit value" (CFI). The fact that RMSEA value is <.05; CFI value is >.90, χ^2/df value is <3-5 shows that the model corresponds with its original structure (Byrne, 2016). Moreover, as a result of CFA, it has been discovered that factor values of job crafting scale's task crafting sub-dimension are between 85-.53, factor values of cognitive crafting sub-dimension are between 74-.61, factor values of relational crafting sub-dimension are between 70-.72; factor values of job engagement scale are between 93-.85. With the descriptive statistics related to the scales, correlation coefficient and cronbach alpha values are given in Table 3.

Table 3. Mean, Std.Error., Correlation, α, Values

Variables	1	2	3	4	α	Mean	Std. Error
Task Crafting	1				,75	3,99	,07
Cognitive Crafting	,169**	1			,72	4,35	,28
Relational Crafting	,107**	,196**	1		,74	4,21	,25
Job Engagement	,217**	,219**	,168**	1	,87	4,38	,02

*N=207; **p<.01; α=Cronbach's Alpha*

Considering the correlation values, it has been discovered that there are directly related and meaningful relationships between task crafting and job engagement (r=.21; p<.01), cognitive crafting and job engagement (r=.21; p<.01), relational crafting and job engagement (r=.16; p<.01). The correlation value can be a value between -1 / +1. The sign "-"shows that the correlation is reverse, "+" shows that the correlation is directly related. If it is between 0,00-0,29, there is a low level of correlation, if it is between 0,30-0,69, there is a medium level of correlation, and if it is 0,70 and above, there is a high level of correlation (Çam and Tümkaya, 2008, p. 13). Also, it has been realized that the Cronbach Alpha (α) coefficients of the scales are bigger than (α ≥.70) the minimum limit (Hair et.al., 2010). According to the structural equation modelling performed for the testing of the proposed hypotheses, the goodness-of-fit values of the proposed modelling [χ^2/df=2,88; RMSEA=.02; CFI=.90] have been found to be acceptable.

Table 4. Structural Equation Model (SEM) Findings

Hypotheses	Standardized β	Std.Error	t	p
TC → JE	.21	.01	8,45	.01**
CC → JE	.21	.02	7.22	.01**
RC → JE	.16	.02	6,47	.01**

***p<.01 **p<.01 Job Engagement (JE); Task Crafting (TC); Cognitive Crafting (CC); Relational Crafting (RC).*

In Table 4, standardized path coefficients, standard deviation, and t values are presented. It has been confirmed that task crafting affects job engagement (β=0.21; p<0.01), cognitive crafting affects job engagement (β=0.21; p<0.01), relational crafting affects job engagement (β=0.16; p<0.01) positively. With SEM results, each hypothesis' validness (H_1, H_2, H_3) has been identified.

Discussion and Conclusion

Today's rapidly changing information and technology has a significant impact on workplace. Organizations must manage human resources correctly and effectively during this period of rapid change. Human resources are the most important resource in both private and public institutions, according to current economic conditions. It is the element that is most important in achieving the organization's goals. Administrations have focused on human resources because they believe that increased productivity and quality of business life are dependent on organizational human resources. The most rational use of the knowledge, skills and abilities of employees will contribute to the achievement of the goals of the organization and its success. In an environment where competition is increasing more and more, the need for qualified labour of organizations is also increasing more and more. In parallel with this situation, managing human capital, which is the most important component of intellectual capital, becomes more and more important progressively. Furthermore, the importance of human resources management to the workforce is increasing more and more. It is seen that there is an orientation towards the effective evaluation of human resources. In order to increase the productivity of employees, policies should be established to develop their skills, knowledge and creativity. In this study, in order to shed light on human resources managers, the effect of municipal employees' task crafting on job engagement, cognitive crafting on job engagement, and relational crafting on job engagement has been tried to be determined. According to the results of the research, it has been found that task crafting affects job engagement, that cognitive crafting affects job engagement, and that relational crafting affects job engagement positively and meaningfully. Based on the SEM results, each hypothesis (H_1, H_2, H_3) has been proved to be true. The results of the study are in accordance with the result of the research conducted by Chen et al. According to the results, individual crafting and job engagement are related (Chen et al., 2014: 21). The research conducted by Siddiqi shows that commitment to both the customer and their organization is significantly affected by job creation behaviours, that are different from the level of commitment to the job (Siddiqi, 2015, p. 277), with the research result emphasizing that the relationship between job crafting and job engagement is positive and moderately significant (Decouti, et al., 2015, p. 87), with the result of the research examining the relationship between health workers' job crafting and job engagement and acquiring a positive relationship (Güzel and Aslan, 2021, p. 631). Almost all organizations' need for employees who are connected to their organization is increasing gradually. It is important that employees have the same purpose with the organizational purpose. The presence of a corporate culture that promotes the growth and development of employees encourages and allows them to take action (Schaufeli, 2012, p. 8). In order to have harmony between the job and employee, placing employees in jobs that are appropriate to their personal characteristics, compatible with their values and beliefs, and ensuring that the work is done autonomously are important for employees to be successful and feel happy (Turgut, 2010, p. 84).

Although the findings supporting the hypotheses have been obtained, the research has some limitations. One of the limitations is that the participants consist of only one district municipality employees. Another limitation is that the effect of the sub-dimensions of the job crafting variable on work engagement has been examined, and the sub-dimensions of work engagement have been ignored. In future studies, it is recommended to investigate the variables of organizational commitment, organizational support, organizational justice, corporate culture, personality, and innovative behaviour with a larger sample in different sectors and different regions.

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