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Dear Esteemed Readers, Authors, and Colleagues,

I hope this letter finds you in good health and high spirits. It is my distinct pleasure to address you as the Editor-in-Chief of Integrative Omics and Applied Biotechnology (IIOAB) Journal, a multidisciplinary scientific journal that has always placed a profound emphasis on nurturing the involvement of young scientists and championing the significance of an interdisciplinary approach.

At Integrative Omics and Applied Biotechnology (IIOAB) Journal, we firmly believe in the transformative power of science and innovation, and we recognize that it is the vigor and enthusiasm of young minds that often drive the most groundbreaking discoveries. We actively encourage students, early-career researchers, and scientists to submit their work and engage in meaningful discourse within the pages of our journal. We take pride in providing a platform for these emerging researchers to share their novel ideas and findings with the broader scientific community.

In today's rapidly evolving scientific landscape, it is increasingly evident that the challenges we face require a collaborative and interdisciplinary approach. The most complex problems demand a diverse set of perspectives and expertise. Integrative Omics and Applied Biotechnology (IIOAB) Journal has consistently promoted and celebrated this multidisciplinary ethos. We believe that by crossing traditional disciplinary boundaries, we can unlock new avenues for discovery, innovation, and progress. This philosophy has been at the heart of our journal's mission, and we remain dedicated to publishing research that exemplifies the power of interdisciplinary collaboration.

Our journal continues to serve as a hub for knowledge exchange, providing a platform for researchers from various fields to come together and share their insights, experiences, and research outcomes. The collaborative spirit within our community is truly inspiring, and I am immensely proud of the role that IIOAB journal plays in fostering such partnerships.

As we move forward, I encourage each and every one of you to continue supporting our mission. Whether you are a seasoned researcher, a young scientist embarking on your career, or a reader with a thirst for knowledge, your involvement in our journal is invaluable. By working together and embracing interdisciplinary perspectives, we can address the most pressing challenges facing humanity, from climate change and public health to technological advancements and social issues.

I would like to extend my gratitude to our authors, reviewers, editorial board members, and readers for their unwavering support. Your dedication is what makes IIOAB Journal the thriving scientific community it is today. Together, we will continue to explore the frontiers of knowledge and pioneer new approaches to solving the world's most complex problems.

Thank you for being a part of our journey, and for your commitment to advancing science through the pages of IIOAB Journal.

Yours sincerely,

Vasco Azevedo

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ARTICLE

CINEMATIC ANALYSIS OF THE KICKING LEG VELOCITY AND ITS POSITION DURING PERFORMANCE OF THE MAWASHI GERI TECHNIC ON TARGET

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ABSTRACT

In this study is analyzed the kicking leg velocity and its position during performance of the technique by mawashi geri on target. The technique is performed by seven athletes with a maximal engagement on target. The target is fixed at a 1,8m height from the floor. All athletes are of male gender, with solid experience in karate sports and are black belt carriers. The analyzed results reflect the velocity of the kicking leg, including the knee and hip angles for both lower limbs. The maximal kicking leg velocity is 13.97 (m / s) and this is achieved before the target is kicked, or 76.74% of the movement trajectory. The angle on knee at the moment of the peak velocity is 118.14 °, while at the kicking moment; the angle achieves a value of 163 °. The hip angle of the kicking leg is smaller during the peak velocity 112.71 °, while at the moment of kicking the angle achieves the value of 108.42 °. On the supporting leg the knee angle value is almost the same with the moment of the peak velocity and the kicking moment (about 155). Meanwhile, the angle on hip joint of the supporting foot at the moment of the peak velocity is 125 °, respectively 122 °. The obtained results indicate an attempt to reduce the velocity just before the kicking and at the moment of kicking target, which probably presents practice achieved during the training process. The supporting leg takes angles that responding to the balance maintenance, while the kicking leg tends to be more stretched on knee in order to empty all its energy.

KEY WORDS
karate, mawashi geri, kinematics, position, velocity karate

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INTRODUCTION

The spread of martial arts is stretched out almost all over the world. A good part of these skills is involved in more sports, arranged according to rules and sports ethics. Karate as part of this large family is mainly based on foot and hands hitting, but with strict restrictions for health reasons. Karate, like any other sport recently is developed rapidly as a result of the training process perfection based on a scientific basis. This sport has a great range of kicking leg techniques, including the mawashi geri technique, with its variants. In this sport victory depends from their correct usage. Karate competition has two types of major manifestations, which have their own characteristics. One of them is an imaginary war (Kata) and the other is real war called (Kumite) [1].

All techniques must be implemented in accordance with the rules of the sport. Conditions of kicking realization depend on the athlete's intent and circumstances in which are realized, example: if the kick is realized by contact or without contact, if the kick is realized in the demonstration form without opponent's reaction, or if the kick is realized after opponent's reaction? It is understandable that under different circumstances and conditions mentioned, depends the change of the karate athlete's engagement in order to achieve the most effective kick [2-3]. Leg-kick techniques are achieved with a whole body engagement and with an appropriate position maintaining a balanced attitude. As is known, leg kicks have the advantage, because are several times more powerful than hand hitting and with less risk from the opponent's reaction. For these reasons, special attention is paid to regular and efficient leg kicking training. Among the leg kicking techniques is also the mawashi geri technique with its variants which in many fights (tournaments) defines victory. Numerous variants and the possibilities to be realized from different positions and in surprising moments for opponent, have caused high level attendance of the mawashi geri technique [4, 5, 6].

The leg kicking in karate sport is a segmented stereotype and is realized in all three spatial system spheres. Significant factors during the leg's performing technique are: the kicking velocity with maximal explosive force and the foot's movement in an appropriate trajectory.

The kicking successful evaluation is partly made with the coaches and experts eye. But accurate evaluation of body's movement and karate athlete's limbs can be done with the help of the kinematic analysis systems and other biomechanical equipment. Such analyzes, as in any other sport, are made in laboratory conditions, and are hardly realized in situational conditions [7]. The kinetic and kinematical characteristics analysis of mavashi geri technique has proved that this kick has advantages comparing with many other techniques.
Correct determination of biomechanical indicators such as leg's trajectory movement, hand or gravity centre of the athlete's body, their velocity and accelerations, enables coaches to correct mistakes during the performance of the technique. From these information is scheduled the training process with all its elements, in order to increase the technique's motor skills and performance.

During the kicking performance, the foot must have high velocity which is convertible to the maximum kinetic energy. Performing effect of the technique in question depends on the movement of the attacking

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leg, as well as by the support of the supporting leg which at the kicking moment tends to rest (due to the movement amount), but maintaining stability with the corresponding muscle contraction.

Comparing the data found from more studies, is seen that studies are more focused on the description of the athlete's movement by explaining the kicking part details, but also the description of the supporting leg position, including the technique comparison between different styles [8]. In addition, researchers have analyzed foot's velocity and other leg segments during the kicking, for different conditions, for ex. leg's ankle velocity just before contact with the very close distance, or moreover, kicking comparison between dominant leg and the other leg etc. [9, 10, 11, 12].

Ariel Performance Analysis System. Ariel Dynamics [1994] in their study had a purpose of analyzing the kicking kinematic variables with traditional karate-style under attacking conditions on target and without stroke. Eight professional karate athletes with brown and black belt are taken for analysis. They have performed three kicks with and without contact on both sides, which then are analyzed in software Skill spector 1.3.2. Study results concluded that kicks by contact performed with dominant limbs have higher velocity values; however non-contact kicks have better angle conditions for the attacking technique. So, it is suggested that contact kicks have precedence in sports karate training and they are used more in comparison to non-contact kicks.

The performing conditions of mawashi geri technique vary constantly. They depend on many factors, among others are: attacking situation or repelling, and its target or position ect. Taking in consideration these conditions, the study purpose is to determine the kinematic indicators of the athlete's leg position and the kicking velocity during the performance of the mawashi geri technique on target with full contact.

MATERIALS AND METHODS

The performance of the kicking technique by mawashi geri leg is made by 7 men karate athlete's of different categories. All of them are from Kosovo, with a high level of the technique mastery (karate master) and have achieved solid results during their career. The athlete kicks the target with maximum engagement, accurate and as fast as possible. The target is fixed at a 1.8m height from the floor.

Measured body sizes are the height and body mass. Kinematic variables are extracted with the help of Kinematic Analysis System [14]. The indicators in question can be termed as variables of kicking leg position and the athlete's man supporting leg that demonstrates (performs) technique, the kicking velocity and the realization time of the technique.

The leg's position variables are the angles in: the hip joint of the attacking leg, the knee joint of the attacking leg, the hip joint of the supporting leg and the knee joint of the supporting leg. The velocity and time variables are: the maximal linear velocity of the attacking leg (foot) before the kicking, trajectory duration of the leg hitting movement until the maximal velocity achievement, the trajectory duration of the kicking leg (foot) until achieving the target.

The material was filmed with the help of three cameras placed at optimal angles to each other. The frequency of the cameras is 60 frames per second. They are fixed on an appropriate trolleys and vibration is eliminated. Previously is made recording of calibration frame with sizes (200cm x 200cm x 200cm) which is under the eyepiece of three cameras together with a reference point.

All further phases are made according to the performance of the Kinematical Analysis System (APAS), drawing the necessary values of the kinematic indicators.

Based on the purpose and objectives of the study, the basic statistical methods are selected in order to enable the extraction of sufficient information.

RESULTS AND DISCUSSION

During performance of the mawashi geri kicking on target, are achieved different values between the karate's athletes, but the results are as a product of body size, respectively different body lengths. These are applied for both phases during the kicking, even for the preparatory phase when the foot is still on the floor and during flight phase, when the foot starts its journey. The structure of the attacking leg movement of this technique is that the leg's velocity starts from the hip, transmitted on gristle, and finally passed on to the foot in the kicking form. In [Table 1] are presented data for two main dimensions of the athletes' body.

Table 1: Body height (ALT) and body mass (AMT) values for karate's athletes

Body mass	TORI (N=7)							Mean
	T.G.	A.K.	A.M.	A.B.	J.H.	A.H.	A.B.	
ALT (cm)	167	165	175	170	173	184	180	173,42
AMT (kg)	55	62	64	68	73	75	80	68,14

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Realization of the mawashi geri technique on the target is made with strong muscle engagement and with great amplitude of movement. Such movements are enabled by achieving optimal angles in the main joints during this movement, such as the knee joint and the hip joint.

[Table 2] presents the knee joint and the hip joint values at the moment of the peak velocity and the kicking moment. The change of angle's value in the two analyzed joints of the kicking leg is given in [Fig. 1].

The angles values according to joints depend also on the karate's athlete body size and his technical and motor skills (especially flexibility). The highest angle point at the knee joint is achieved during the kicking moment (163°), which means that while target is kicked the knee tended to be stretched as much as possible. The value of 118.14° in the knee joint is reached at the moment of the foot's maximal velocity, followed by hip joint value (112.71°) during the maximal velocity and finally during kicking the target the value is (108.42 °). During the performance of the mawashi geri kicking on target are reached different values between the karate athletes, as a result of their body size and the length of the lower limbs. These angle values differ greatly to each other on the knee joint of the kicking leg at the moment of maximal velocity (S.D. = 25.23°). Surely these changes are as result of different style of the performing technique but as well as a different karate athletes body sizes.

Table 2: The hip joint and knee kicking leg angles and karate athletes supporting leg angle during the performance of mavashi geri technique on target

Angles on joints (°)	Kicking leg		Supporting leg	
	Mean	St. deviation	Mean	St. deviation
Knee joint (max. velocity.)	118,14	25,23	155,42	11,68
Knee joint (kicking moment)	163,00	14,09	155,71	9,48
Hip joint (max. velocity)	112,71	8,95	125,00	11,93
Hip joint (kicking moment)	108,42	17,36	122,42	14,71

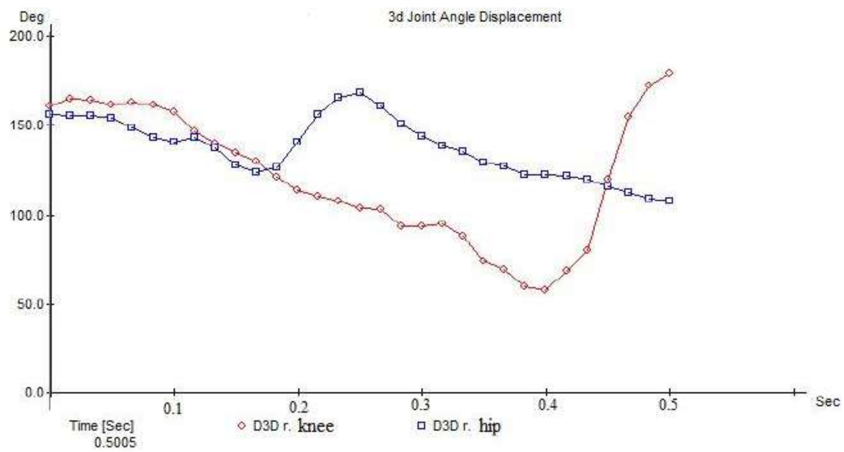

Fig. 1: The joint angle displacement on the knee joint and on the hip joint of the kicking leg (right leg), during the performance of the mawashi geri technique on target (subject J.H.).

The supporting leg is positioned so that the athlete maintains the balance from the beginning of the kicking realization, during the kicking moment, until the leg is released on ground. In [Table 2] are given the knee and hip joint values at the moment of reaching foot's maximal velocity and at the kicking moment. During the performance of the mawashi geri kick on target, as a result of their body size, respectively of the lower limbs length, are reached different values between the karate athletes. Approximately identical angles values of the supporting leg are reached on the knee joint during the maximal velocity of the foot's movement and during the target kicking (about 155°). The mirror of arithmetic middle values for all athletes shows that the biggest angle is reached in the knee joint and this is almost equivalent with the kicking moment and with the foot's maximal velocity moment of the kicking leg (155°). Also on the hip joint, the angle values are approximately the same for both analyzed moments, 125° during the maximal velocity of the leg's kicking foot, respectively 122° during kicking the target. This value gives the impression that during the kicking on target, knee supporting leg is slightly bent. The value displacement of the angle, on knee joint and on the ankle joint is shown in [Fig. 2].

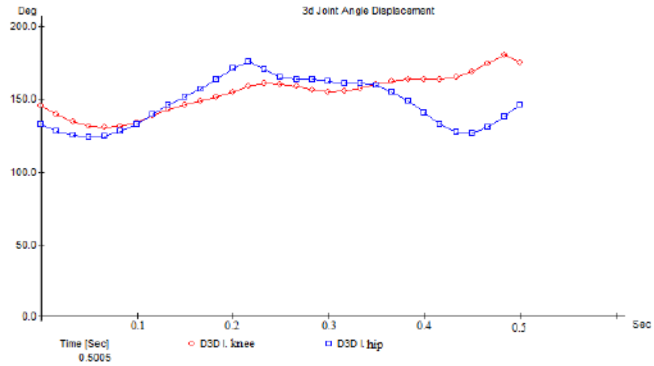

Fig. 2: Joint angle displacement on knee joint and on the hip joint of the supporting leg (left foot), during the performance of the mawashi geri technique on target (subject J.H.).

The foot's maximal linear velocity of the kicking leg, achieving time of foot's maximal velocity and the time to implement the mawashi geri technique up to kicking are shown in [Table 3]. These values are quite heterogeneous depending on the karate athlete category and his qualities. The linear velocity chart of the kicking leg is given in [Fig. 3].

Table 3: The foot's maximal linear velocity of the kicking leg, the reaching time of foot's maximal velocity and the implementation time of the mawashi geri technique up to kicking

Foot's kicking velocity and implementation time	Kicking leg		% of technique's Implementation time
	Mean	St. deviation	
Maximal velocity of the kicking foot (m/s)	13,97	2,30	
The time at the moment of maximal velocity(s)	,33	,07	76,74%
The time at the kicking moment-total time	,43	,13	100%

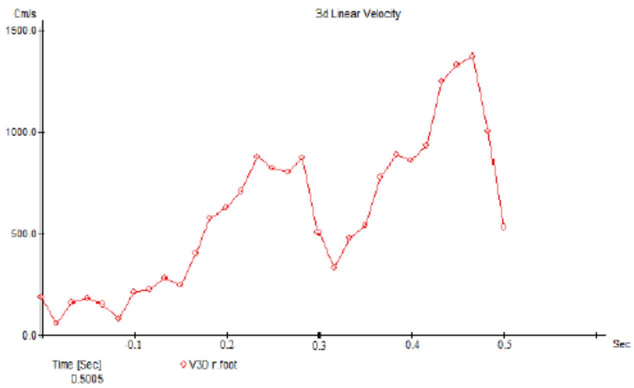

Fig. 3: The linear velocity of the foot's leg kicking on target at mavashi geri technique (J.H.).

The mawashi geri technique is performed with strong muscle engagement and with a great amplitude movement. Such movements are enabled by achieving optimal angles in the main joints during this movement, such as the knee joint and the hip joint. During the performance of the mawashi geri kicking on target are achieved different values between the karate athletes. The highest angle value is achieved on the knee joint during the maximal velocity of the foot's movement.

CONCLUSION

The performing conditions of the mawashi geri technique, in a real competition circumstances may vary from moment to moment, because the karate athlete is constantly obstructed by the opponent. The developed studies show that values of the kinematics indicators of athlete's position and the performing velocity of the mawashi geri technique on target depend on their body size, physical abilities and technical qualities.

Attacking leg changes position from the beginning of its establishment until reaches maximal velocity and hitting the target. Understandably, throughout this trajectory change the joints angles. At the kicking moment, the angle is bigger in the knee, because the athlete tends to stretch the leg more, while the hip

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angle decreases as a result of the hip contraction. The supporting leg maintains the balance of the whole body; on the other hand while the technique is in progress, the angles difference on joint is much smaller compared to the attacking leg. At the moment that kicking leg movement achieves the maximal velocity, the knee angle joint of the supporting leg remains almost unchanged compared with the kicking moment on target (about 155°).

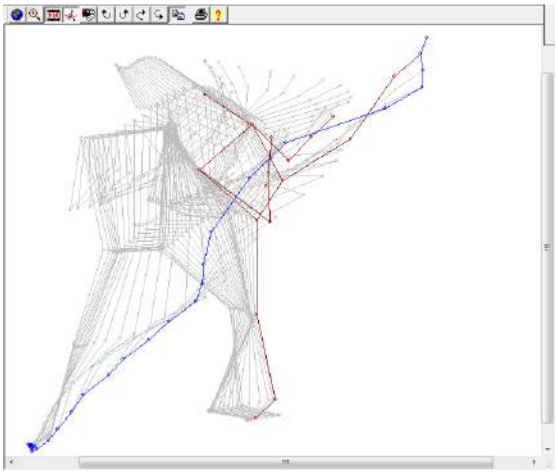

Fig. 4: Contourgram with foot's trajectory during the performance of mavashi geri technique- (subject A.SH.).

The duration of the implemented technique is one of the main factors for its effectiveness. This is applied throughout technique implementation as well as for the preparation stage, which means during detachment phase and the raising of the kicking leg. Another important factor is the reaching moment of maximal velocity and kicking moment on target. The foot's velocity during the technique performing is higher before it touches the target. Expressed in percentage this represents about 76.74% of the foot's movement trajectory. This means that the karate athlete reduces the kicking velocity just before kicking the target. Probably it is athlete's formed habit, as a result of karate's rules so that the opponent should not be kicked, which with regular exercises has shifted in stereotype. The kinematic analysis of indicators at certain moments gives a realistic picture of the movement performing state in mawashi geri technique including other techniques. The obtained results are useful information for researchers, coaches and karate sportsmen, in order to improve the technique and the whole training process.

CONFLICT OF INTEREST

There is no conflict of interest.

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None

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ARTICLE

INVESTIGATION OF THE RELATIONSHIP BETWEEN NOISE POLLUTION AND ANXIETY

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ABSTRACT

There is a constant interaction between human beings and environment. Environmental factors may affect humans positively, although some other negative effects may also arise. For example, noise pollution is one of the physical parameters that may negatively affect human organism. Showing up in industrialized countries, noise attracts attention as a significant pollution factor. Noise pollution leads to many diseases as it influences physiological processes in the body. It also triggers some psychological disorders by influencing human psychology. One of those disorders is known as anxiety. Noise can shape one's cognitive assessments causing the brain to respond with the feeling of distress or anxiety. Whether or not noise will cause anxiety depends on many variables, such as personality, coping strategies and the person's previous mental status. It is also known that noise is associated with phobic anxiety as well. Based on the given circumstances, this study aims to investigate the relationship between anxiety and the noise existing in educational settings. A qualitative design; descriptive research was used in the study. The sample of the study consists of 339 students studying8 at Okan University. The study was conducted in two stages. In the first stage, noise level was detected in various places located in Okan University using the Cesva DC311 model device with T240385 serial number while in the second stage the Beck Anxiety Inventory was applied to students with the aim of investigating the relationship between noise and anxiety. The data obtained from the research were analyzed using Statistical Packages for Social Sciences (SPSS 21.0 version). Following the analyses carried out, it has been found that individuals are more likely to have anxiety problems in places where higher noise levels exist.

KEY WORDS
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INTRODUCTION

Noise, regarded as pollution in industrialized countries, causes several health hazards to humans and together with many other factors, it leaves a destructive impact on health which may cause physiological and psychological destruction that may ultimately lead to death [23]. Besides the impact noise has on hearing physiology, its impact on other physiological processes has also been a major subject of noise-related studies conducted in recent years. Especially during the recent years, noise has been considered as a far-reaching key component of the biological system. The impact of noise extends from gene expression to the functions of the heart. Research on neuroscience has examined the function of noise in each phase of sensory motor lob, from one protein signalization to body movement. According to a research conducted in this field, the influence of noise on the neural system occurs step by step. Those steps are: sensory noise composed of signal transmission, amplification and receptor neuron; electrical noise involving ion channels of related membranes; cellular noise responsible for action potential, synaptic transmission and network interaction; and motor noise responsible for motor neurons and muscle movements. Noise is an inevitable consequence of the brain operating with molecular components and complex networks of neurons that generate behavior [10].

Exposure to noise, which is a biological stress source, causes several health risks. Among them; high blood pressure, coronary heart disease, ulcer, colitis, migraine and headache can be named. Research results show that there is a relationship between noise exposure and the health problems experienced after the exposure. Furthermore, research findings estimate that noise is also correlated with viral infections and the toxins produced in the body. Noise exposure releases adrenalin hormone in the blood and increases the level of response given to a stimulus causing a subsequent increase in the heart rate, blood pressure, and breathing rate, which causes vasoconstriction (constriction of blood vessels), muscle strain and limitation in gastro-intestinal mobility. Also, continuous or/and interval noise disturbs sleep after which many psychological effects arise. First, the individual may have difficulty in falling asleep, maintaining the sleep and waking up at the proper time. Following that, increase in heart rate, blood pressure, vasoconstriction and depression are observed and individual's dynamism decreases during the day. It is already confirmed by the research that continuous exposure to noise higher than 30 dB disturbs sleep [22].

Negative effects of noise on human health include other physiological problems among which cardiovascular and gastric problems constitute the major ones. Effects of noise on the cardiovascular system have been among the most popular subjects of research [17]. Findings of many studies indicate that individuals exposed to at least 85 dB continuous noise have higher blood pressure compared to those who are not exposed to noise. In this vein, most of the studies confirm that exposure to high frequency noise rises blood pressure leading to physiological and psychological problems [25].

In his study, in which he aimed to show the impact of noise on the cardiovascular system, Babish [2] concluded that long term exposure to traffic noise leads to ischemic heart diseases while exposure to 65

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dB daytime and 55 dB night time noise causes heart attacks. Despite the limited research, gastric problems are also found to appear as a result of noise. In their study, Bugliarello et al. [4]examine the effect of noise on gastro-intestinal system and they assert that noise may have an impact on the development and progression of ulcer.

Besides physiological effects, noise can also result in psychological problems such as nervousness, anxiety, anger, stress and lack of motivation and poor morale. In addition to this, noise may also cause anti-social behaviour such as violence [9] [19]. A person exposed to noise, may face many psychological obstacles like difficulty in maintaining speaking and listening skills. Laboratory studies carried out in this field showed that excessive noise can reduce helping behaviours and increase stress-related aggressive behaviour [12] [18] [19]. In addition to these psychological effects, noise exposure may also lead to psychiatric disorders by altering serotonergic and dopaminergic activity in the brain [26] and one of these psychiatric disorders is anxiety disorder.

Being a highly common disorder, anxiety has been reported to be experienced with a 7.8-9.3 % frequency in a life-time [21][8]. It is known that anxiety disorders are often co-morbid with each other and with other psychiatric disorders. Therefore, it is considered almost impossible to associate a person with just a single anxiety disorder [13]. The etiology of this co-morbidity depends on the origin of the cause of the disorder and / or on shared risk factors [20] [14]. Anxiety disorders can share common symptoms such as fear, fatigue, shortness of breath, sweating, dizziness and numbness in the feet, heart palpitation, sleep problems, xerostomia and nausea (DSM-IV, 2000).

Bystritsky, Khalsa, Cameron & Schiffman [5] have stated that anxiety comes from a non-linear process and they have developed a model for this process, named ABC. According to this model; alarms are defined as feelings or physiological reactions developed by the individual in response to sensations or triggering events. A well-organized brain circuit can easily process alarm-related information. Decision-making process is shaped by previous experiences, personal and cultural backgrounds and belief perceived through sensory organs. When compared to people who do not have anxiety disorders, those with anxiety disorder cannot handle decision-making process, because when they are supposed to process a danger related information they try to work through it more carefully and by doing so, they fall into ambiguity and catastrophic thinking. As a result, they begin to develop coping strategies. For example; they develop some behaviors or mental activities in order to reduce anxiety or to avoid danger. The entire process is carried out by the mutual interaction of the brain cortex and amygdala and through the interaction of the cortex, basal ganglion and amygdala- three highly important brain structures: amiygdala responsible for alarms, basal ganglions responsible for coping strategies and the brain cortex responsible for beliefs. Especially, the amygdala has a highly critical importance as it is responsible for the identification of the symptoms that may lead to anxiety or fear and for developing emotional reactions in return. In addition, temporal and prefrontal cortical structures are also among the areas that are closely related to anxiety in the brain cortex [6]. Anxiety-related neuronal circuits are governed by multiple neurotransmitter systems; the most extensive of which are GABA and glutamate. Neurotransmitters such as serotonin, dopamine and norepinephrine are also closely related to pathological anxiety states. However, anxiety disorders are not dependent simply on one neurotransmitter. The networks governed by these neurotransmitters may have extensive interrelationships, multiple feedback mechanisms, and complex receptor structures [5].

Genetic relationships and environmental factors are regarded by Hettema et al [14] as main factors causing anxiety problems It is concluded by previous studies, especially those on family and twin children, that genetic predisposition triggers anxiety. In addition, anxiety disorders can show up as physiological disorders, that is why a complex relationship may appear between medical disorders and anxiety disorders [29]. Metabolic and autonomic problems arising from any disease can result in anxiety; in other words, the symptoms of a medical illness can be a trigger for anxiety. Sometimes physiological disorders themselves can mimic anxiety disorder [5]. Studies have shown that; chronic anxiety increases the risk of coronary heart disease [28].

Anxiety also influences many aspects of the person's performance negatively by triggering stressful life events. As already mentioned, one of the main environmental factors that causes anxiety is noise. As a consequence of noise, anxiety emerges as a psychological response, which is defined as the interaction of anxiety, noise and distress. Noise stimulus is influenced and produced by environmental conditions. The volume of the noise and the sensitivity level of the person to that sound are considered to be main components of noise stimulus. Noise can influence one's cognitive assessments causing the person to experience distress or anxiety. Whether or not the person will produce anxiety as a response to noise depends on many variables, such as type of personality, coping strategies and the previous mental status of the person [11]. According to the research; sensitivity to noise, especially, seems to be highly influential in developing anxiety when exposed to abnormally high noise.

Literature review shows that noise is also associated with phobic anxiety [24]. Kipper [16], in his work, states that some soldiers who were exposed to battles, had frequent anxiety problems in response to loud voices [24]. Furthermore; in a research, implemented on animals with the aim of showing how prenatal exposure to noise causes decrease in postnatal behavioral performance, maternal stress during pregnancy has been shown to have long-term effects on off spring such as anxiety, learning disability and decreased interest [15]. In another study conducted on mice, noise pollution has been found to result in anxiety-like behaviors [7].

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As the literature review shows, the number of studies conducted on the subject is not enough. Taking this into consideration, we aim to investigate the relationship between noise and anxiety in our research. Accordingly, anxiety level is predicted to be higher at places where noise level is relatively higher.

MATERIALS AND METHODS

The research is structured with a descriptive model using a quantitative research method. The results of the research were obtained at Okan University Tuzla Campus in May 2017. The students who are studying at Okan University constitute the population in line with the main objective of the research. The power analysis was calculated using the Raosoft Sample Size Calculator, assuming a 95% confidence interval and anxiety frequency of 27%. According to this calculation, it is enough to include 297 participants in the survey. Using the random sampling method, 339 students were reached and included in the sample group. Participation of the students was totally ensured on a volunteer basis.

In the first stage of this two-stage study, noise level was detected in various points of Okan University using the Cesva DC311 model device with T240385 serial number while in the second stage the Beck Anxiety Inventory was applied to participations with the aim of investigating the relationship between noise and anxiety.

The Beck Anxiety Inventory is used to distinguish between diagnostic groups with and without anxiety by calculating clinical anxiety status of the people. It is a quartet Likert type scale consisting of 21 items based on the self-report of the participants. The total score that can be obtained from the scale is between 0 and 63. As the obtained score increases; an increase in the level of anxiety is observed. The internal consistency coefficient of the scale was calculated as .92 [3] [27]. The Turkish validity and reliability study of the scale was performed by [27] and the internal consistency coefficient of the scale was calculated as .93, which supports the use of the scale as a reliable measurement tool in the Turkish population.

The data obtained from the research were analyzed using Statistical Packages for Social Sciences (SPSS 21.0 version). Finding that the data follow a normal distribution model, one-way analysis of variance (one-way ANOVA) and correlation analysis were carried out.

RESULTS

This study was conducted at Tuzla Campus of Okan University and the sound measurements were made in 6 different points. The first point was the library in the basement of the Life Center building of the university and the result was 30 dB. In the second point, the second floor of Faculty of Health Sciences where the classrooms are located, the sound level was measured as 42 dB. In the third point, the smoking area in the 4th floor of Health Sciences Faculty, the result was 57 dB. The fifth point was measured as 86 dB at Starbucks located in the Life Center of the university. And the last measurement was made during the graduation ceremony hold in the amphitheater next to the Engineering Faculty and the result was 92 dB.

The scores participants obtained from the Beck Anxiety Inventory shows that the score range is between 0 and 60 while the average score was calculated as 16,20. In [Table 1], you can see participants' average scores calculated in each point.

Table 1: Average scores obtained from the Beck Anxiety Inventory in each measurement point

Measurement points	dB	N	Avr.	SS.
1.Point	30	49	10.43	8.09
2.Point	42	56	12.38	8.92
3.Point	57	55	16.35	10.69
4.Point	71	62	16.47	9.75
5.Point	86	63	17.87	10.59
6.Point	92	54	23.04	15.38

One-way ANOVA was implemented in order to identify whether there is a meaningful relationship between the independent variable noise and total scores of the participants depending on measurement points. The results are given in [Table 2].

Table 2: Results of One Way ANOVA between Noise Level and Avarage Anxiety scores

	Measurement Points	n	Avr.	s.s.	SD	F	P	Meaningful Difference
ANXIETY	1.Point	49	10.43	8.09				1-4
	2.Point	56	12.38	8.92				1-5 1-6
	3.Point	55	16.35	10.69	5 /	8.826	.000	2-6

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	4.Point	62	16.47	9.75	333			3-6 4-6
	5.Point	63	17.87	10.59				
	6.Point	54	23.04	15.38				

p<.01

Results of one-way ANOVA given in [Table 2] reveal a meaningful relationship between the independent variable noise and the participants' anxiety level. (F(5-333) =8.826, p< .01). When average anxiety scores were compared, a meaningful difference was found between the first measurement point (30 dB) and the fourth (71 dB), fifth (86 dB) and sixth (92 dB) measurement points. At the same time, a significant difference was detected between the sixth measurement point (92 dB) and the second (42 dB), third (57 dB) and fourth (71 dB) measurement points. These differences indicate a positive correlation between the variables; the average level of anxiety increases as the noise level increase.

Correlation analysis was implemented in order to identify whether there is a meaningful relationship between the independent variable noise and total scores of anxieties. The results of the analysis show that a meaningful relationship exist between the total score of anxiety and the noise level measured in each point (r = .329, p <.01). When the results are taken into consideration, it can be concluded that individuals are more likely to experience anxiety problems in places where the noise level is higher.

DISCUSSION

As seen in the literature, noise pollution emerging in industrialized countries is highly important in terms of human health and psychology. Especially in recent years, noise has been regarded as a significant factor influencing biological systems of living organisms. Anxiety may lead to a wide range of negative consequences ranging from gene expression to heart function, including many psychological disorders such as ADHD, anger, anxiety and depression. Regarded as a powerful stress source; noise may bring about high blood pressure, coronary heart disease, ulcer, colitis, migraine and many other similar diseases. At the same time, noise influences the immune system hindering the removal of the toxic substances out of the body and letting microbes into the body. What is more, anxiety is also known to have impact on hormons. It may lead to psychiatric disorders by altering the levels of hormones. One of the most important of those disorders is accepted as anxiety. Literature review suggests that there are limited number of articles investigating the relationship between noise and anxiety. Noise measurements were made at different points of Okan University and the noise levels were measured as 30 dB at the first point; 42 dB at the second point, 57 dB at the third point, 71 dB at the fourth point, 86 dB at the fifth point and 92 dB at the sixth point. Also, the data obtained from the Beck Anxiety Inventory and the data obtained from the noise measurements were compared and a significance relationship was found between noise and anxiety.

CONFLICT OF INTEREST

There is no conflict of interest.

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FINANCIAL DISCLOSURE

None

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ARTICLE

THE EFFECTS OF THE CONFLICT TACTICS ON THE RELATIONSHIP BETWEEN ADHD SYMPTOM LEVELS AND DYADIC ADJUSTMENT

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ABSTRACT

Attention Deficit Hyperactivity Disorder (ADHD) is a neuropsychiatric disorder which is generally diagnosed in childhood. It is *suggested that the adults with ADHD have lower levels of romantic relationship satisfaction than the ones without ADHD. The main aim of this study is to examine the relationships among ADHD symptom levels, conflict tactics and romantic relationship satisfaction. During data collecting process three standard scales such as The ADHD self-report scale, the Revised Conflict Tactics Scale and the Dyadic Adjustment Scale were employed and significant relationships among all three variables were found and the level of the ADHD symptoms was clearly related to dyadic satisfaction. From regression analysis it became possible to assert that conflict tactics mediated the relationship between the ADHD symptom levels and the dyadic satisfaction of the sample group composed of 384 participants.*

KEY WORDS
ADHD, marital relationship, conflict tactics, romantic relationship satisfaction

INTRODUCTION

Attention Deficit Hyperactivity Disorder (ADHD) is a neuropsychiatric disorder. The estimated prevalence of clinical adult ADHD has been determined to be 3% in the general population. On the other hand, the sub-clinical prevalence has been reported to be at 16.4% [3,4]. ADHD is a disorder which is generally diagnosed in childhood, although it has been accepted that some of the symptoms persist into adulthood [12][13]. The executive functions of the brain help individuals to organize their behaviours and motivations toward their goals. Children with ADHD are often found to suffer from executive function impairments [29] Adults with ADHD have also been found to be impaired in terms of executive functioning [34][27]. Beyond executive impairments, some other non-executive cognitive domains have also been found to be impaired in adults [18]. King et al. [14] reported that adults with ADHD exhibit inefficient cognitive control when compared to normal adults. Scientists have concluded that adult ADHD is a heterogeneous condition with various cognitive functioning difficulties. Beyond cognitive impairment, Wilbertz et al., [31] have also reported that adults with ADHD often exhibit impulsivity. Impulsivity can be described as the tendency to act without considering the consequences in various situations. It does not seem to be a coincidence that the prevalence of ADHD among prisoners has been found to be significantly higher when compared to the normal population (10.5%) [9][23].

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Evidence suggests that many of the core symptoms of childhood ADHD persist into adulthood and these continue to cause drastic impairments in terms of daily functionality [21, 24]. Researchers have reported that adults with ADHD often experience many difficulties in occupational and social situations [8]. It can be argued that these difficulties also result in emotional deficits [10, 28]. Sobanski et al. [26] found that adults with ADHD are more likely to suffer from eating disorders, depressive disorders and substance-related disorders. They showed that adults with ADHD were more impaired in several areas of psychosocial functioning when compared to adults without ADHD. Salomone, Fleming, Bramham, O'Connell and Robertson, [24] claimed that cognitive weaknesses and attention difficulties in particular underlie the functional impairments that adults with ADHD experience. Fredriksen et al. [8] determined that the severity of the symptoms experienced during childhood is related to increased school dropout rates. Furthermore, they found that the severity of the symptoms were also related to occupational impairment and unemployment in the future. Some studies have investigated the comorbidity between ADHD and various other disorders. It has been discovered that there is a high rate of comorbidity between ADHD and depression [17]. Philipsen [20] reported that there is an association between ADHD and borderline personality disorder. Reviewed empirical evidence suggests that ADHD is a serious condition that causes various tragic difficulties in daily-life.

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Interpersonal relationships are an important aspect of both childhood and adult life. Quality relationships enable people to prosper. On the other hand, problematic relationships result in psychological problems and despair. Over the years, many scientists have reported that children with ADHD experience difficulties, both with significant adults and peers [11]. Symptoms of ADHD have also been reported to cause functional impairments in romantic relationships in adulthood. This raises the important question of why adults with ADHD experience interpersonal difficulties more than other people. Overbey, Snell, and Callis [19] reported that the level of the ADHD symptoms affects the quality of the romantic relationships in university students and the authors advised that guidance services in the universities should provide assistance to these students. Eakin et al. [6] reported that married adults with ADHD also revealed poorer marriage adjustment and increased family dysfunction.

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It appears that the level of the ADHD symptoms is related to romantic relationships as an impairing factor. However, the underlying reasons behind this phenomenon have not been discovered. Recently, Bell [1] attempted to identify one of the possible reasons that contribute to the poorer satisfaction levels. In the study, ADHD symptoms, social communication skills and relationship satisfaction were investigated. It was hypothesized that higher ADHD symptom levels are related to poorer romantic relationship satisfaction. Furthermore, they proposed that communication skills play a mediating role in this relationship. The results of the study showed that there was a negative correlation between the adults' ADHD symptoms and their partner's relationship satisfaction. On the other hand, the study results revealed that social communication skills were not a good indicator of the romantic relationship satisfaction. Discovering the mediating factors is very important in terms of understanding the reasons behind the problem. The spouses of adults with ADHD often appear as a neglected section of the population. It is important that future studies investigate the psychological well-being of these vulnerable adults. Ben-Naim, Marom, Krashin, Gifter and Arad [2] investigated the mediating role of intimacy. The spouses of adults with ADHD have reported lower marital satisfaction and the degree of intimacy appeared as a mediating factor in the satisfaction. Recently, Wymbs, Dawson, Suhr, Bunford, and Gidycz, [32] revealed that the experience of the spouses of the adults with ADHD is worse than one would expect. They found that college students with greater ADHD symptom severity have reported higher rates of intimate partner violence perpetration. Consequently, it appears that this is an urgent issue. It is crucially important to determine the causes and prepare appropriate prevention programs. Emotional self-regulation difficulties have been reported in children with ADHD and it is speculated that this plays a role in the frustration tolerance levels and the violent behaviour of some adults with ADHD [25, 30]. Recently, Lopez [15] investigated the relationship between ADHD symptom severity, emotion regulation and romantic relationship satisfaction. The results revealed a significant negative relationship between the emotional regulation difficulties and relationship satisfaction. Bruner, Kuryluk, and Whitton [5] investigated the mediating role of the hostile relationship conflict on romantic relationship quality. They found that the ADHD symptom severity was positively related to the hostile relationship conflict. Importantly, as expected, the hostile relationship conflict was negatively correlated to the relationship quality. Evidence suggests that the individual's approach to the conflicts that arise in a romantic relationship has significant potential to affect the relationship quality. For this reasons, it is important to determine the effects of the different conflict tactics on romantic relationships.

In the current study it has been hypothesized that the ADHD symptom level of an individual should be related to his/her partner's conflict tactic and marital satisfaction in a marriage. Furthermore, these conflict tactics should play a mediating role between the ADHD symptom level and the romantic relationship satisfaction in the married couples. Higher ADHD levels should be positively linked to negative types of conflict resolution tactics (like psychological aggression, physical assault, and injury), and higher levels of these negative types of conflict resolution tactics should be negatively linked to adults' dyadic adjustments in their marriage relationship.

Aims and hypotheses

The present research mainly aims to determine the links between married adult participants' ADHD measures, their partner's conflict tactics and their dyadic adjustments. In general, it was expected that ADHD would be a negative predictor for positive types of conflict resolution, such as negotiation, and lower levels of negotiation would also be negatively linked to dyadic adjustments in marriage relationships. In contrast, it was expected that higher ADHD levels would be positively linked to negative types of conflict resolution tactics (like psychological aggression, physical assault, and injury), and higher levels of these negative types of conflict resolution tactics would be negatively linked to adults' dyadic adjustments in their marriage relationships. The hypotheses of the present research are given below.

Hypothesis 1: Higher levels of ADHD in an individual should predict the spouse's negotiation level negatively, and lower negotiation levels as a mediator variable should reduce the participants' dyadic adjustments.
Hypothesis 2: Higher levels of ADHD in an individual should predict psychological aggression levels of the spouse in a positive way, and higher psychological aggression levels as a mediator variable should predict participants' dyadic adjustment in a negative way.
Hypothesis 3: Higher levels of ADHD in an individual should predict the spouse's physical assault level in a positive way, and higher physical assault levels as a mediator variable should predict participants' dyadic adjustment in a negative way.
Hypothesis 4: Higher levels of ADHD in an individual should predict the spouse's injury level in their conflict resolution in a positive way, and a higher injury level as a mediator variable should predict the participants' dyadic adjustment in a negative way.

MATERIALS AND METHODS

Participants

The sample was composed of 403 married individuals. After eliminating 19 univariate and multivariate outliers from the data set, a total of 384 married adult participants (274 women -71%; 110 men - 29%) remained for analysis. The mean age of the participants was 37 (SD = 10.3) and the age range was between 19 and 67. The participants' mean duration of their present marriage was 23 years (Range = 18-

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45, SD = 4.5). They predominantly originated from middle socio economic status families from Turkey (Family income: M = 4305 TL, $1500). The majority of the participants (46%) had an undergraduate or graduate degree, some of them (28%) had a high school degree, and a smaller proportion (26%) had a secondary or primary school education. In October and February of 2016 some senior psychology students at Near East University were chosen as volunteer interviewers to apply the questionnaires in 19 cities of Turkey in which their families lived. Using the snowball technique each student applied nearly 15 questionnaires.

Measures

Demographic Questionnaire: This questionnaire contained various questions about gender, age, marital age, educational level, individual monthly income, and monthly household income of the participants.

ADHD Self-Report Scale (ASRS Screener): The original scale was developed by Kessler et al. [13]. The items of the scale were based on the listed adult ADHD symptoms in DSM-IV. The ADHD Self-Report Scale, measures adult participants' ADHD levels by asking a total of 18 questions that define some behaviours related to (1) attention-deficit (e.g.: "How often do you make careless mistakes when you have to work on a boring or difficult project?), and (2) hyperactivity-impulsivity (e.g.: How often do you fidget or squirm with your hands or your feet when you have to sit down for a long time?). Participants were asked to evaluate each of the items in a 5-point Likert type scale (1 = never, to 5 = very often). The reliability scores of the original scale were found to besatisfactory (internal consistencies ranged between .63 - .72, and the test-retest reliabilities ranged between .58 - .77.). The ADHD Self-Report Scale's Turkish translations and reliability-validity analyses were conducted by Dogan, Oncu, Varol-Saracoglu and Küçükgöncü [41]. The Turkish version of the scale exposed the two factor structure of the 18-item scale by explaining41.6% of the total variance. Internal consistency reliabilities were high (Cronbach's alphas: Total scale = .88, attention-deficit = .82, and hyperactivity-impulsivity .78). Test- retest reliabilities were also high for two week intervals (r = .85 for the total scale, r = .73 for attention-deficit subscale, and r = .89 for hyperactivity-impulsivity).

The Revised Conflict Tactics Scales (CTS2): The scale was developed by Straus, Hamby, Boney-McCoy, and Sugarman [35] CTS2 has a total of 39 items and measures the partner relationships for five main conflict resolution tactics (1. negotiation: e.g., "Showed respect for my feelings.", 2. psychological aggression: e.g., "Shouted or yelled at me.", 3. physical assault: e.g., "Threw stuff at me that could hurt.", 4. sexual coercion: e.g., "Used force to make me have sex.", and 5. Injury: e.g., "I went to the doctor because of a fight.").Participants evaluated their partners' conflict resolution tactics that were used against them in the last twelve months in an eight-point scale (1- only one, 2- two times, 3- three or four times, 4- six to 10 times, 5- eleven to twenty times, 6- more than twenty times, 7- not happened in last twelve months but happened many times previously, 0- never happened). The original scale's construct validity was good. Its internal consistency reliability scores were satisfactory (Cronbach's alphas ranged from .79 to .95). The CTS2's Turkish translations, back translations, and reliability-validity analyses were conducted by Aba and Kulakac (2016). In that study, the test-retest reliabilities of CTS2 were very high, and ranged between .97 - 1.00. CTS2's internal consistency scores were also satisfactory (α = .88 for negotiation, α = .85 for psychological aggression, α = .89 for physical assault, α = .79 for sexual coercion, and α = .76 for injury, and α = .92 for the total scale). In the present study, all subscales of CTS2 were used, except for sexual coercion.

The Dyadic Adjustment Scale- DAS: The scale has a total of 32 items and was developed by Spanier [36] in order to measure partners' satisfaction in their relationships in four main dimensions (1. dyadic satisfaction: e.g., "How often do you discuss or have you considered divorce, separation, or terminating your relationship?", 2. dyadic cohesion: e.g., "Do you and your spouse engage in outside interests together?", 3. dyadic consensus: e.g., "Handling family finances", and 4. affectional expression: e.g., "Demonstration of affection"). Each subscale has a different Likert type grading. DAS's construct validities (r = .86 to .88 between DAS and a similar marital adjustment scale), and internal consistencies (α = .94 for dyadic satisfaction, α = .86 for dyadic cohesion, α = .90 for dyadic consensus, α = .73 for affectional expression, and α = .96 for the total scale) were at a very satisfactory level. Higher scores represent higher levels of dyadic adjustments in each dimension and also for the total scale. DAS's Turkish translations, back translations, and reliability-validity analyses were conducted by Fisiloglu and Demir (2000).In that study which was carried with married Turkish couples, the construct validity of DAS was relatively high (r = .82 between DAS and a similar marital adjustment scale). In the Turkish version of DAS, researchers also found some satisfactory Cronbach alpha scores for the four subscales and for the total scale (α = .83 for dyadic satisfaction, α = .75 for dyadic cohesion, α = .75 for dyadic consensus, α = .80 for affectional expression, and α = .92 for the total scale).

Procedure

Interviewers visited participants at their homes and before beginning the interview they informed participants clearly about the content and objectives of the research. Later, they asked them to sign the document of ethical confirmation. Participants completed the questionnaires on their own in a separate place from where their spouses were. In this way, they did not see the answers of their spouses. Each participant filled ADHD Self-Report Scale, The Revised Conflict Tactics Scale and Dyadic Adjustment Scale and returned the forms back to the interviewers in a closed envelope. Data was analyzed in SPSS 20.

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RESULTS

Descriptive statistics

Before testing the four main hypotheses of this study, various descriptive statistics such as correlations, means and standard deviations for the male and female participants, and group comparisons based on participants' ADHD levels are given at the beginning of the results section. Correlation analyses revealed see [Table 1] relatively low but significant negative links between the three ADHD measures and spouses' negotiation tactics in conflict resolution (r = -.10 to -.12). The links between ADHD measures and psychological aggression (r = .23 to .27), ADHD measures and physical assault (r = .17 to .19), and ADHD measures and injury (r = .11 to .16) are positively and moderately related to each other. The correlational results also illustrate the negative and moderate relationship between ADHD measures and dyadic satisfaction (r = -.18 to -.23), ADHD measures and dyadic cohesion (r = -.12 to -.18), ADHD measures and dyadic consensus (r = -.19 to -.29), ADHD measures and affectional expression (r = -.16 to -.22), and ADHD measures and total dyadic adjustment scores (r = -.20 to -.28).

Relatively moderate and significant positive links between negotiation scores and all dyadic adjustment measures (r = .17 to .34) were present, as can be seen in [Table 1]. Psychological aggression (r = -.36 to -.56), physical assault (r = -.25 to -.39), and injury (r = -.10 to -.22) had relatively moderate and negative correlations between both measures of dyadic adjustment.

Table 1: Correlations among the ADHD, Conflict Resolution Tactics, and Dyadic Adjustment Measures

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1.Attention deficit	-	.59**	.90**	-.10*	.26**	.17**	.16**	-.18**	-.12**	-.19**	-.16**	-.20**
2.Hyperactivity-impulsivity		-	.89**	-.11*	.23**	.17**	.11*	-.23**	-.18**	-.29**	-.22**	-.28
3.ADHD total			-	-.12*	.27**	.19**	.15**	-.23**	-.17**	-.27**	-.21**	-.27**
4.Negotiation				-	-.06	-.08	-.05	.30**	.34**	.20**	.17**	.31**
5.Psychological Aggression					-	.66**	.42**	-.53**	-.36**	-.49**	-.46**	-.56**
6.Physical Assault						-	.80**	-.39**	-.27**	-.28**	-.25**	-.37**
7.Injury							-	-.22**	-.17**	-.13*	-.10*	-.20**
8.Dyadic Satisfaction								-	.57**	.61**	.62**	.86**
9.Dyadic Cohesion									-	.54**	.45**	.76**
10.Dyadic Consensus										-	.79**	.89**
11.Affectional Expression											-	.80**
12.Dyadic Adjustment Total												-

**p<.01, *p<.05

In order to represent descriptive values (means and standard deviations) for the main variables in this present study, and to determine if there were any gender differences for these measures, various descriptive analyses and independent sample t tests were conducted. As can be seen in [Table 2], there were no significant gender group differences for any of the measures of this present research.

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Table 2: Means, Standard Deviations and Group (Gender) Comparisons for Variables of the Study

	Women (n = 274)		Men (n = 110)			
Variables	M	SD	M	SD	t	p
Attention-deficit	22.7	5.2	22.3	5.4	.64	.526
Hyperactivity-impulsivity	20.9	5.2	20.5	4.7	.72	.471
ADHD total	43.6	9.3	42.8	9	.76	.448
Negotiation	26.1	8.6	25.7	7.5	.44	.656
Psychological Aggression	10.9	12.1	8.4	11	1.85	.065
Physical Assault	5.9	13.8	3.4	11	1.7	.090
Injury	1.2	4	0.5	3.2	1.5	.147
Dyadic Satisfaction	39.2	8.1	39.5	7.7	-.35	.725
Dyadic Cohesion	14.8	5.1	14.8	5.8	.02	.986
Dyadic Consensus	52.6	8.3	51.7	10	.86	.390
Affectional Expression	11.6	2	11.8	2.3	-.64	.523
Dyadic Adjustment Total	118.2	20	117.8	21.6	.173	.863

Participants were grouped according to their ADHD levels (high, moderate, and low), and were compared in terms of their spouses' conflict resolution tactics, and their dyadic adjustment measures. The mean score for the entire research sample's (n = 384) ADHD total score was 43.4 (SD = 9.2). Participants who were located in 1 standard deviation higher than the ADHD mean score (n = 64) were coded as the high ADHD group. Participants who were located in 1 standard deviation lower than the ADHD mean score (n = 69) were coded as the low ADHD group. The majority of the participants who scored between low and high ADHD groups were defined as the moderate ADHD group (n = 251). These three ADHD groups' descriptive scores for spouses' conflict resolution tactics and dyadic adjustments are illustrated in [Table 3], along with the group comparison test scores. One-way ANOVAs (three ADHD group comparisons) were applied for the spouses'

Conflict resolution tactics and dyadic adjustment measures. As can be seen in [Table 3], there were no significant group differences in terms of the negotiation scores of low, moderate, and high ADHD group participants. Apart from the negotiation measure, all other measures significantly located the participants into the three different ADHD groups. The ADHD group had a significant effect on spouses' psychological aggression ($F(2, 381) = 18.4$, $p < .01$), physical assault ($F(2, 381) = 6.4$, $p < .01$), and injury ($F(2, 381) = 3.4$, $p < .05$). The Scheffe tests for group comparisons revealed that the high ADHD group had higher mean scores than the low and moderate ADHD groups. The ADHD group had also a significant effect on dyadic satisfaction ($F(2, 381) = 8.4$, $p < .01$), affectional expression ($F(2, 381) = 9.8$, $p < .01$), and dyadic adjustment total scores ($F(2, 381) = 13.4$, $p < .01$). Scheffe tests for group comparisons showed that the low and moderate ADHD groups had higher mean scores when compared to the high ADHD group. The low ADHD group also had higher mean scores than the moderate ADHD group according to these three dyadic adjustment measures. For dyadic cohesion ($F(2, 381) = 7$, $p < .01$) and dyadic consensus ($F(2, 381) = 12.5$, $p < .01$) measures, the ADHD group main effect was found to be significant. Scheffe tests for group comparisons showed that the low ADHD group had higher mean scores than the high ADHD group. Furthermore, the moderate ADHD group had lower mean scores when compared to the low ADHD group.

Table 3: Means and Standard Deviation (in Parentheses) Scores of Low, Moderate, and High ADHD Level Participants for Conflict Resolution Tactics, and Dyadic Adjustment Measures

Variables	Low ADHD	Moderate ADHD	High ADHD	F	p	Group Difference
Negotiation	26.9 *(7.5)*	25.9 *(8.4)*	25.2 *(8.6)*	.70	.496	*n.s.*
Psychological Aggression	7.3 *(11.4)*	9 *(10.7)*	17.9 *(13.7)*	18.4	.000	L<H, M<H
Physical Assault	3 *(11.2)*	4.5 *(11.4)*	10.3 *(19)*	6.4	.002	L<H, M<H
Injury	0.62 *(3.1)*	0.81 *(3.4)*	2.1 *(5.6)*	3.4	.035	L<H, M<H
Dyadic Satisfaction	42 *(6.4)*	39.2 *(8.1)*	36.5 *(7.8)*	8.4	.000	L>H, M>H, M<L
Dyadic Cohesion	16.9 *(5.1)*	14.5 *(5.3)*	13.8 *(5.1)*	7	.001	L>H, M<L
Dyadic Consensus	56.5 *(8.6)*	52 *(8.5)*	49.3 *(8.7)*	12.5	.000	L>H, M<L
Affectional Expression	12.5 *(1.7)*	11.7 *(2)*	10.9 *(2.4)*	9.8	.000	L>H, M>H, M<L
Dyadic Adjustment Total	127.9 *(17.7)*	117.3 *(20.1)*	110.4 *(20.5)*	13.4	.000	L>H, M>H, M<L

Results predicting dyadic adjustments

In order to test the predictor roles of the participants' ADHD scores and spouses' conflict resolution tactics in their general dyadic adjustment scores, a series of Hierarchical Regression Analyses were conducted. In Hierarchical Regression Analysis 1, as the first step of the analysis, the ADHD total score was entered, and then the spouses' negotiation score was entered to predict the general dyadic adjustment scores. The ADHD total score (ß = -.27) had predictor role in dyadic adjustment in the first step of the analysis (R2 = .27, ∆ R2= .07, F (1, 383) = 30, p <.01). In the second step, the ADHD total score's contribution to the dyadic adjustment scores was reduced (ß = -.24) but remained significant, and negotiation (ß = .28) predicted the dyadic adjustment in a positive way (R2 = .39, ∆ R2= .15, F (2, 383) = 33.4, p <.01). In the first step of the Hierarchical Regression Analysis 2, the ADHD total score was entered, and then the spouses' psychological aggression score was entered to predict the general dyadic adjustment scores. The ADHD total score (ß = -.27, p <.01) had a predictor role in dyadic adjustment in the first step of the analysis (R2 = .27, ∆ R2= .07, F (1, 383) = 30, p <.01). In the second step, the ADHD total score's contribution to dyadic adjustment scores was reduced (ß = -.13, p <.01) but remained significant, and the spouses' psychological aggression (ß = -.53, p <.01) predicted the dyadic adjustment in a negative way (R2 = .57, ∆ R2= .33, F (2, 383) = 93, p <.01). In the first step of the Hierarchical Regression Analysis 3, the ADHD total score was entered, and then the spouses' physical assault score was entered to predict the general dyadic adjustment scores in the second step of the analysis. The ADHD total score (ß = -.27, p <.01) had a predictor role in dyadic adjustment in the first step of the analysis (R2 = .27, ∆ R2= .07, F (1, 383) = 30, p <.01). In the second step, the ADHD total score's contribution to the dyadic adjustment scores was reduced (ß = -.21, p <.01) but still remained significant, and the spouses' physical assault (ß = -.33, p <.01) predicted the dyadic adjustment in a negative way (R2 = .42, ∆ R2= .18, F (2, 383) = 40.5, p <.01). In Hierarchical Regression Analysis 4, in the first step the ADHD total score was entered, and in the second step, the spouses' injury score was entered to predict the general dyadic adjustment scores. The ADHD total score (ß = -.27, p <.01) had a predictor role in dyadic adjustment in the first step of the analysis (R2 = .27, ∆ R2= .07, F (1, 383) = 30, p <.01). In the second step, the ADHD total score's contribution to the dyadic adjustment scores was reduced (ß = -.25, p <.01) but remained significant, and injury (ß = -.16, p <.01) predicted the dyadic adjustment in a negative way (R2 = .31, ∆ R2= .09, F (2, 383) = 20.1, p <.01).

Mediational regression analysis

The results of the correlational analyses see [Table 1] revealed a significant and relatively moderate correlational relationship between the ADHD total score, and all spouses' conflict resolution tactic measures. The ADHD total score was also significantly and negatively linked to the participants' total dyadic adjustment score. Furthermore, the spouses' conflict resolution tactic measures were significantly linked to the participants' total dyadic adjustment score. These correlational results and the four hierarchical regression results given above demonstrate the necessity to test the meditational links between these variables. In the results of the hierarchical regression analyses, there were also some remarkable Beta score decreases for the ADHD measure when conflict resolution tactic measures were entered in the second step of the analyses. Baron and Kenny (1986) introduced some criteria for testing meditational relations between three measures: (1) The independent variable must have a significant impact on the dependent measure; (2) The independent variable must have an impact on the variable that is suggested to be the mediational variable; (3) The mediational variable must have an impact on the dependent variable; (4) The

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independent variable's predictor role on the dependent variable must be reduced when the meditational variable is entered in the analyses together with the independent variable. The hierarchical regression analyses results satisfied all of the aforementioned mediational regression criteria. Resultantly, a series of simple regression analyses were performed between ADHD, conflict resolution tactics, and dyadic adjustment variables according to the suggested meditational links between these variables.

As can be seen in [Fig. 1], ADHD total (ß = -.12, $p < .05$) significantly and negatively predicted participants' spouses' negotiation scores ($R2 = .02$, $\Delta R2 = .01$, $F (1, 383) = 5.7$, $p < .05$). Negotiation scores (ß = .31, $p < .01$) predicted dyadic adjustment in a positive way ($R2 = .09$, $\Delta R2 = .09$, $F (1, 383) = 39.7$, $p < .01$). Only ADHD total predicted (ß = -.27, $p < .01$) dyadic adjustment significantly, but when the spouses' negotiation variable was added to the basic regression analyses, the ADHD's contribution was reduced (ß1 = -.27** to ß2 = -.24**). The Sobel z test results revealed that this reduction in Beta values was significant and reflected the mediational role of negotiation measure (a partial mediation) between ADHD and dyadic adjustment (Sobel z = 2.22, $p < .05$).

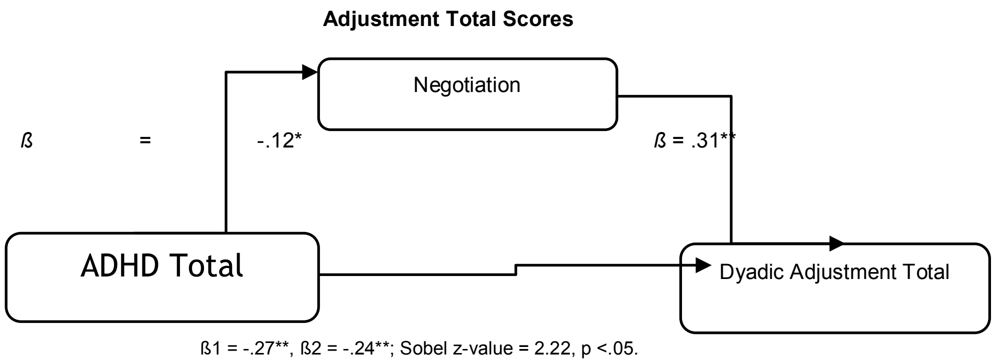
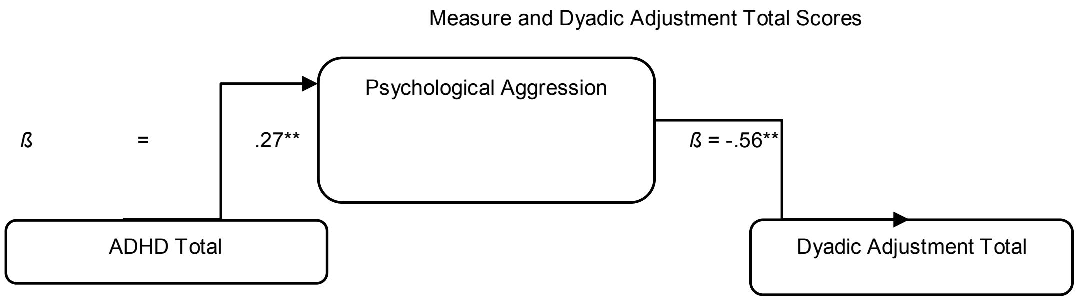


Fig. 1: Mediator Role of Negotiation between ADHD Measure and Dyadic Adjustment Total Scores.

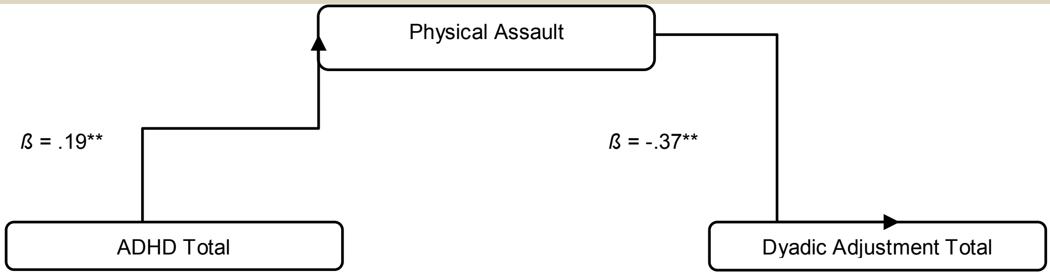


ß1 = -.27**, ß2 = -.13**; Sobel z-value = 5.12, p <.01.

In [Fig. 2], it can be seen that ADHD total (ß = .27, $p < .01$) significantly and positively predicts the participants' spouses' psychological aggression scores ($R2 = .07$, $\Delta R2 = .07$, $F (1, 383) = 30.4$, $p < .01$). Spouses' psychological aggression scores (ß = -.56, $p < .01$) predict dyadic adjustment in a negative way ($R2 = .33$, $\Delta R2 = .33$, $F (1, 383) = 93$, $p < .01$). Only the ADHD total by itself predicts (ß = -.27, $p < .01$) dyadic adjustment significantly, but when the spouses' psychological aggression variable was added to the basic regression analyses, then the ADHD's contribution was reduced (ß1 = -.27** to ß2 = -.13**). The Sobel z test results show that this reduction in Beta values was significant and reflected the mediational role of spouses' psychological aggression variable (a partial mediation) between the participant's ADHD levels and dyadic adjustment (Sobel z = 5.12, $p < .01$).

Fig. 2: Mediator Role of Spouses' Psychological Aggression between ADHD Measure and Dyadic Adjustment Total Scores

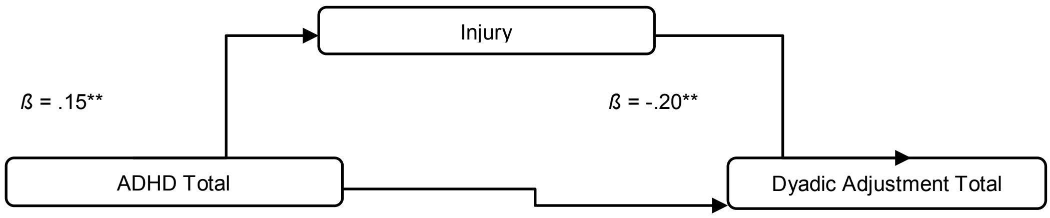
From [Fig. 3], it can be seen that the ADHD total (ß = .19, $p < .01$) significantly and positively predicted participants' spouses' physical assault scores ($R2 = .04$, $\Delta R2 = .03$, $F (1, 383) = 14.4$, $p < .01$). Spouses' physical assault scores (ß = -.37, $p < .01$) predicted dyadic adjustment in a negative way ($R2 = .13$, $\Delta R2 = .13$, $F (1, 383) = 59$, $p < .01$). Only the ADHD total by itself predicted (ß = -.27, $p < .01$) dyadic adjustment significantly, but when the spouses' physical assault variable was added to the basic regression analyses, the ADHD's contribution was reduced (ß1 = -.27** to ß2 = -.21**). Sobel z test results showed that this reduction in Beta values was significant and reflects the meditational role of the spouses' physical assault variable (a partial mediation) between ADHD and dyadic adjustment (Sobel z = 3.4, $p < .01$) variables.



ß1 = -.27**, ß2 = -.21**; Sobel z-value = 3.38, p <.01.

Fig. 3: Mediator Role of Spouses' Physical Assault between ADHD Measure and Dyadic Adjustment Total Scores

The final series of Basic Regression Analyses were conducted to investigate the mediational links among ADHD, spouses' injury and the participants dyadic adjustment measures. As can be seen from [Fig. 4], the ADHD total (ß = .15, p <.01) significantly and positively predicted the participants' spouses' injury scores (R2 = .02, ∆ R2= .02, F (1, 383) = 8.6, p <.01). The spouses' injury scores (ß = -.20, p <.01) predicted dyadic adjustment in a negative way (R2 = .04, ∆ R2= .04, F (1, 383) = 15.4, p <.01). Only the ADHD total by itself predicted (ß = -.27, p <.01) dyadic adjustment significantly, but when the spouses' injury measure was added to the basic regression analyses, the ADHD's contribution was reduced (ß1 = -.27** to ß2 = -.25**). Sobel z test results revealed that this reduction in Beta values was significant and reflected the meditational role of the spouses' injury measure (a partial mediation) between the ADHD and dyadic adjustment (Sobel z = 2.36, p <.05) variables.



ß1 = -.27**, ß2 = -.25**; Sobel z-value = 2.36, p <.05.

Fig. 4: Mediator Role of Physical Injury between ADHD Measure and Dyadic Adjustment Total Scores

DISCUSSION

In the present study it was hypothesized that the higher levels of ADHD should predict the participants' spouses' negotiation levels (aggression, physical assault, and injury) in a positive way. It was also hypothesized that the levels of negotiation, aggression, physical assault, and injury as mediator variables should affect the participants' dyadic adjustment. These hypotheses are supported.

Overall, the study findings are consistent with those which found in the literature [6, 37, 38, 39]. Eakin et al. [6] found that spouses reported that ADHD behaviour often interfered with areas of marital functioning and adjustment. It can be argued that because adults with ADHD have poor listening skills, communication skills and behavioural control, this leads to insufficient affective responsiveness, which could reflect on their spouses' behaviours and ultimately their relationship satisfaction. This exactly reflects the findings of the present study. Study findings showed that there is a correlation between conflict resolution tactics and dyadic adjustment. The study supports the notion that couples with positive conflict resolution tactics tend to have higher marital satisfaction. The study also supports the notion that couples with negative conflict resolution tactics tend to have lower marital satisfaction.

An individual with higher levels of ADHD symptoms could experience many difficulties in his/her practical life. When the tasks are not addressed efficiently, then the partner may respond negatively, which escalates the conflict and this results in decreased marital satisfaction. However, when an individual has less ADHD symptoms and he/she is efficient in the tasks that he/she is responsible for, then the partner may respond positively, thereby decreasing the conflict and positively impacting the marriage. Therefore, when the participants in the study perceived that his or her partner were not cooperating during arguments and used psychological aggression, physical assault, and injury to resolve the conflict instead, then they were less likely to have a satisfying dyadic relationship. Bruner et al. [5] reported that the ADHD symptom severity was positively related to the hostile relationship conflict in the college students. Present study's results support this finding and further extend it to the married couples. ADHD symptom level in the general population determines the tactic which will be used in a dispute. It was particularly interesting to find out how participant's ADHD levels affected their spouses' approaches to the disputes. It can be speculated that ADHD symptoms relates to individuals' certain behaviours. In the literature there are studies which relates ADHD symptoms to the certain personality dimensions and traits [40]. It has been reported that some

Symptoms of ADHD relates to the negative emotionality and low conscientiousness. It can be argued that this particular tendency in the personality affects the spouses in negative way and underlie the choice of more disruptive tactics as the intensity of symptoms increase.

CONCLUSION AND RECOMMENDATIONS

The participants' ADHD score directly predicted his/her marital satisfaction. It also appeared that the spouses' choice of conflict tactic (positive or negative) had an important effect on the participant's dyadic adjustment. These results would implicate to emotional dysregulation that often been reported in the ADHD population. Motivation could be an important factor that causes individuals with higher ADHD symptoms to be less functional. It is imperative for future studies to address this question in order to identify possible points of intervention. The limitation of this research is the fact that the relational descriptions are of a correlational quality and data are cross-sectional and presented on the base of self-reported measures. Future investigations are needed to establish better the relationship between ADHD and marital adjustment.

CONFLICT OF INTEREST
There is no conflict of interest.

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FINANCIAL DISCLOSURE
None

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ARTICLE

ADMINISTRATOR'S MANAGEMENT PREFERENCES AND MANAGEMENT THEORIES

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ABSTRACT

Within the scope of the research, organizational management, educational management and management theories have been researched and the development processes in the world have been examined and the effects and applications of management theories in organizational management have been examined. It is aimed to determine what the contribution of management theories to organizational management is. According to this aim, this research was made using qualitative research methods based on document analysis and content analysis technique. The academic articles used for this research are taken from the database named ulakbim.gov.tr. In this context, the key words "Organization Management, Educational Administration, Management Theories" were searched and published articles were found in 181 scientific journals and 20 of them were taken into the scope of the research. In this research, the numerical ratios of management theories used in organization management, the methods used in university, publication year and articles was investigated. Depending on the findings, it has been seen that the highest quality management theory, Total Quality Management, looks at the articles of responsibility and organization management and management theories exhibit. When we take a look at the publication year of the articles, we see that publication year 2009 and 2015 are the most. When we look at the Universities that the articles are produced, the most produced universities are Osmangazi and Selçuk Universities. Mostly quantitative research method was used as the method for producing the articles. In general terms, management theories are applied in every organization. Organizations need to establish a good management style in order to improve the productivity of the organization, to be adapted for the changing competition conditions, to ensure continuity of the organization and to provide better service, in accordance with the better and contemporary management approach. It seems that there is no single and best management style and understanding in the research conducted. It is necessary for organizations to determine the most suitable form of management according to internal and external factors and to apply the most suitable management techniques to them.
Keywords: Organizational Management, Educational Administration, Management Theories

KEY WORDS
Educational Management, Management Theories Intelligence

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INTRODUCTION

Educational Management is one of most rapidly developing disciplines in the world. The future of states is closely related with the education generations receive and especially the education of young generations is critical as they are the ones to shape the future. The kind of education youngsters receive is decisive in the way any country would incline towards. Educational administration is a significant discipline not just for institutions in the education system but for all organizations and structures. Administering an educational institution, education system, or organization is only possible by using the up-to-date management theory and technique which suits the organization the most. The word "up-to-date" is of utmost importance because changes and developments never cease throughout the world and only organizations which can keep up with these can survive. Naturally, no management theory may be suitable for each organization or structure [28]. One issue that should be taken into consideration is that factors which make a school or an organization successful cannot be a criterion for other schools or organizations. For, schools have environmental conditions different from each other [29] [35].

LITERATURE REVIEW

Educational management

It is a field of study which contributes to the formation of public policies related to education. In recent years, the field of educational management has gained importance globally and in Turkey in terms of theory and practice. Without doubt, educational administrators have significant responsibilities in meeting educational needs and solving educational problems arising as a result of the social, political and economic processes which emerge globally and in Turkey. In that context, various academic studies aimed at defining this field in a global sense and finding out the accumulation of knowledge are in progress primarily in the USA, England, Australia and Canada [11] [12]. Educational administration is the collaborative process of meeting educational needs efficiently [30].

Education is an essential factor to construct progress that would lead to capacity development of a country. Therefore, educational management is an important issue in order to ensure the development of the country so that it will keep it up with the changing world [1].

Management

It is the overall works aimed at ensuring collaboration and coordination in a group of people in order for the aims to be fulfilled in an effective and efficient way. It can be defined as cooperating with others to

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attain a goal, the act of making others perform a task, reaching a particular target with others, and the arrangement of activities in an organization in pursuit of meeting the target. In this process, there have always been those who give and who take orders. Historian Daniel A.Wren dates back the beginning of the ideas of organization and management to 5000 BC [4] [38].

Education

It seems quite difficult to make a satisfactory definition of education which we frequently make use of in daily life because it is impossible to see it as an unchangeable reality. Despite the difficulty, it is possible to make various definitions of education. According to a definition, education is the activity of developing physical, intellectual and ethical abilities [22]. It is the overall purposeful influences made on the inherent physical and intellectual abilities of an individual as well as on the sense of decency which is acquired later on. It is a line of activity where applied information directly increases the degree of efficiency of individuals in their own areas [23]. Whatever its definition may be, education and training has been the basic element which created the civilization mankind has attained today. Thus, at present, education is one the fundamental rights individuals have. The overall aim of education is assisting children and youngsters who are being raised to adapt to the society in a sound and efficient way. In order for this adaptation to take place, the abilities of individuals are developed through education. Education starts with the family, continues at school and lasts a lifetime. Therefore, a well-managed education process makes individuals successful and affects the entire life of individuals.

In the schools, principals are the critical factor for effective management and leadership; and also developing the organizations' vision, culture, and climate [18]. For that, a high job satisfaction of school principals is inevitably needed. Nevertheless, the job satisfaction is a complex structure and improving it entails better understanding this phenomenon [19].

Management theories and processes

Classical Management and Organization Theory, Neo-Classical Management and Organization Theory, Modern Management and Organization Theory, Contemporary Management and Organization Theory.

Classical management and organization theory

Classical approach

Scientific Management Approach (USA, Frederick W. Taylor), Management Process Approach (France-Henry Fayol), Bureaucratic Approach (Germany-Max Weber). The two main views of the classical theory are enhancing organizational effectiveness and efficiency and also the arrangement of the formal organization structure and the managerial activities therein which will ensure it. While Taylor focused on the scientific management approach and how to increase human effectiveness and efficiency, Fayol concentrated on the management process approach, which dealt with what a number of interlinked activities in an establishment called the management process and how a proper formal organization could be formed. Weber, on the other hand, focused on bureaucracy, which he described as the most effective and productive work system while he dealt, in a sociological framework and contrary to the Marxist idea, with the bureaucratic approach and why and how people affect each other in a society and how they legalize it [5,16] Sisek, 1999, 45). Management theories were only interested in the way management activities in organizations are carried out. In the scientific, management process and bureaucratic approaches, the following have been the common views. In organizations, factors beyond the human element were emphasized and the human element was always addressed in the second place. Rationalism and mechanical processes were the starting points of the classical theory. Interpersonal relationships were ignored and the organizational structure seemed to be formal. Organizations were dealt with the understanding of a closed system. What changed the management concepts has been the management theories which were put forth. A theory is the most reliable tool which makes the administrator find about reality [7,17]. Some of the principles of Taylorism, which is a scientific management approach are as follows: a scientifically defined work system and not one defined by what employees know, not minimum but maximum efficiency, making the necessary definitions and establishing a system for selecting the most suitable employee for each task, training the employees for maximum efficiency, designating the standard duration and amount for each work and paying overtime to employees who exceed the standard. Taylorism focused on three variables as the capacity of the employee, designation of the time period during which each task will be completed and the strength and stamina of the employee. As a result of the perspective of Taylorism, studies on time and motion as well as on work and production standards, pay systems with incentives and business economics increased in number (Kocel, 2014.241). The classical theory is the approach which gives prominence to organizational anatomy [16]. The classical management concept centred everything on organizational structure, did not care about the individual or the organizational environment and considered the human being as a gearwheel of the machine [5] [7] [16]. The classical theory of organization analyses formal organizational structure in detail without taking into consideration the human factor and seeks to enhance effectiveness and efficiency through relations of authority [21,664] In line with this understanding, organizational tasks, methods of fulfilment, rules, competences and responsibilities are clearly identified. The prevalent view is that the efficiency in the establishment would increase if each and every employee is in conformity with these and no conflicts would occur.

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The management process approach

It is pioneered by Henrey Fayol. While Tayor was interested in the work design and the methodology of performance of the works, Fayol focused on the entire organization and how a proper organizational structure should be formed. He also divided organizational activities into categories and dealt with management as a process. Fayol's management activities include planning, organizing, conducting (commanding), coordinating and controlling.

The bureaucratic approach

Sociologist Max Weber argued that effectiveness and efficiency would increase if organizations had a bureaucratic structure. Weber, investigated the source of the authority used to influence the people in a society and dwelt on three types of authority as charismatic, conventional and bureaucratic authority. By charismatic authority, it is championed that certain individuals or leaders can manage others due to their charismatic traits. By conventional authority, on the other hand, it is championed that people may influence and manage others based on social traditions or familial reasons. The Bureaucratic authority, however, is the capability to manage employees on a legal basis, in a defined way and as subjected to certain rules. In this type of authority, everything is clear and nothing is vague. What will be done and by whom is obvious and impersonality is essential [20,264] The primary characteristics of the bureaucratic organizational structure include division of labour based on functional specialization, a clearly identified chain of command, management by principles and methods, detailed and concrete job definition and principles on how works will be carried out in each department, formal relationships, a recruitment and promotion system based on technical knowledge and skills, legal competence practices and formality.

Behavioural (neo-classical) management and organization theory

This is a movement of views which do not regard organizations as a fully calibrated machine and put forth that organizations are structures formed of human elements in addition to technical and material ones. The starting point of the theory is the analysis of human behaviour. Issues the behavioural (neo-classical) theory focuses on include understanding the human element at work within the organization; making maximum use of human skills; analyzing relationships between the organizational structure, job definitions, authority relationships and employee behaviours; and finally understanding the informal relationships formed by individuals within the organization as well as social groups.

Human relations approach is the basis of the neo-classical organization theory. The overall views and researches complementing the missing points of the human behaviour approach and the classical organization theory form the "neo-classical organization theory" (Aydın, 1998.107).

Hawthorne researches

The researches of Roethlisberger and Elton Mayo were the inception of behavioural approach. In these researches, the effect of physical work conditions in Hawthorne factory, that is, lighting, heating and layout as well as tiredness on the efficiency of employees was researched. While the research hypothesis was based on the view that changing these physical conditions would decrease efficiency and vice versa, the experiments conducted failed to confirm the hypothesis. For example, it was observed that in cases where the intensity of light decreased, efficiency did not decrease and the degree of efficiency increased on the contrary. Thus, researchers concentrated on social factors instead of physical ones and a second hypothesis was developed. In Hawthorne researches, it was put forth that an increase in efficiency was connected only with the factors of employee motivation, type of supervision applied, satisfaction and the relationships between employees, as per the second hypothesis. Consequent to Hawthorne researches, the second hypothesis was verified and it was ascertained that efficiency was influenced by social factors. It was found out that employees formed informal relationships between themselves, established norms among themselves as to what the production level should be and that those producing under this level was forced by the members of the other group to exceed this level. Also, the human element came to the foreground intensively as a subject of research.

Behavioural approach

Contrary to the classical approach, various models dealing intensively with the human element in establishments and exploring how employees behave, why they are motivated in different ways and also group characteristics were devised. The "x" and "y" theory of Douglas McGregor and Likert's System 1 and System 4 models are examples thereof. According to McGregor's "x" theory, individuals do not like to work and avoid working and taking responsibilities. Their own security is always on the foreground. The theory champions that individuals should be forced, punished and kept under constant supervision to make them work. According to the "y" theory, working is as natural as playing and resting for a human being. The human being is generally not lazy and can enjoy working when provided with favorable conditions. When a suitable environment is provided, the human being does not refrain from learning and taking responsibilities. He provides benefits for organizational aims by controlling himself and managing.

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Modern organization theory

Systems approach denotes the consistent relationships between two or more human, biological, physical and intellectual entities. It is a way of thinking in the management process, which enables taking and analysing factors of the internal and external environment as a whole in order for the organization to succeed in management activities. Each system has subsystems and upper systems. The domestic education system, economic system, health system and social security system are all examples of a system. The idea of a system enables us to see all the links of an incident more clearly and helps us realize how we can change those in the most effective way [31]. Any system which interacts with its surroundings is called an open system whereas one which does not is called a closed system. In open systems, organizations should have a structure which can be adapted to their surroundings. On the other hand, entropy denotes an emerging tendency in the overall system, which involves ending of the system's activities as a result of the arising of hitches. While entropy is present in each system, the tendency towards entropy is stronger in closed systems. The system wishes to grow to become more powerful but ends up with loss of power in time [6,73]. Synergism is a system's being greater than the sum of its parts. If each part moves separately, then productivity decreases.

A tendency to safeguard pre-determined targets is negative feedback while the continuation of this tendency in the case of development of these targets is positive feedback. Negative feedback is the situation where it is ascertained that the pre-determined goals have been exceeded following the evaluation of organizational outputs and the results are withdrawn to the initially set standards and targets after ending the situation. Positive feedback is the case when results increase the tendency of exceeding the initially set standards and targets in an organization. Accordingly, a change in the system is encouraged. For example, it is the case where the marketing manager of an organization observes a situation where the sales volume targeted for the first five months of the year exceeds the pre-determined level by 30% yet does not stop it and maintains this tendency.

Contingency Approach: It denotes applying the model which suits the structure of each organization, the situation it is in and environmental conditions instead of adopting a single management and organizational approach which can be valid for organizations anywhere and anytime. There is not a single best organizational structure which is valid anywhere and under any circumstance. In contingency, there is not a single plan or model. Variables which are fit for the purpose are determined and the most pertinent decision for the organization is taken by taking into account the period and environmental conditions [14,133].

Post-modern contemporary management approaches

These are contemporary and up-to-date notions and approaches which aim to render either a process which directly concern or is used within the whole organization or organizational activities more effective and highly-competitive in harmony with the surroundings [20,437]. Organizations where contemporary management techniques are applied are in communication with open system surroundings and are structures which are open to transfer of information and technology. The contemporary manager is democratic, values his employees, shares his power and has an understanding of governance [8, 11-12] [34].

Total quality management approach

Presently, the notion of quality has gone beyond quality products or services and has been transformed into quality in all organizational activities. All employees have been regarded as people having responsibility on quality and customer satisfaction has become the basic criteria in the evaluation of organizational activities. Beginning with 1980s, the notions of quality circle, quality assurance, quality management and zero-defect production appeared on the agenda of organizations [24, 318) It has also become a requirement to apply total quality management in all educational institutions in order to be able to create an education system which meets the requirements of the present time [33] [25].

Core competences

What differentiates an organization from others is merely the knowledge, competences and skills peculiar to that organization. These features are at a level which cannot be copied easily by other organizations.

Benefiting from external sources

This means that organizations merely carry out what they do best and outsource the others from other organizations in the form of products and services. The reason for organizations to opt for this method is either the cost or the technology and quality provided by other organizations.

Organizational restructuring and network organizations

These are organizational structures formed when tasks, activities and necessary resources needed to create goods or services are attributed to different organizations instead of collecting those under one roof. These structures are composed of units with horizontal relations which communicate intensively and where the hierarchical division is at maximum.

Business process reengineering

Radical changes are made in organizational structures, which lead to a customer-oriented organizational structure where customer satisfaction comes first. In such organizations, the prevalent idea is that there will be no organizations or employees if there are no customers since the salaries of employees are paid by them.

Benchmarking

It encompasses the overall activities of an organization which include the organization's consistently and consciously investigating how organizations which are the best in their sector run their businesses, comparing it with its own procedures to reach a conclusion and attaining a higher level of production and achievement by its implementation under a plan.

Employee empowerment

It is the process where the organization provides the employees facilities to develop their knowledge and skills irrespective of their level and increases the responsibilities and competences of organizational members through teamwork with a view to work more efficiently and productively.

Forming strategic partnerships (mergers)

In the globalized world, organizational structures undergo changes. These involve mergers where common interests are pursued and which also include informal sharing of knowledge, materials, technology and financing either due to competitive conditions or to realize big projects.

Downsizing and delayering

These are activities aimed at decreasing the layers and staff between the highest and lowest level with a view to increase organizational efficiency, become more effective in management activities, enhance synergy and provide solutions to financial problems.

Learning organizations

It involves an organizational structure which is based on organizational members' sharing the information they generate with other organizational members and using of the generated information efficiently in solving the problems as the information pertaining to the organization.

Virtuality and virtual organizations

These are organizations in different geographical locations working like a single organization for the purpose of producing goods and services. They get connected and adapted to each other via communication and information technologies and use these technologies effectively and intensively.

Serial adaptation

It involves organizations where a spontaneous and flexible mode of production is adopted in accordance with customer requests. In such organizations, the full time production method, which calls for zero stock and long-time business relations with few and reliable firms is applied.

Management with total balanced success indicator

It is both a measurement and evaluation tool using various performance indicators, an integrated management tool and also a management style employed as an institutional learning tool [20,515]

New economy

It involves organizations where information, Internet and technology are used intensively.

Governance

Institutional Corporate Management: It relates to organizational structures which act transparently and give accurate information to the lower and upper systems within the economic system they pertain to.

Educational administration is an ever-developing discipline. Thus, investigating the ways management theories applied in the field of educational management change the latter as well as making a systematic analysis of the studies made in this field will contribute greatly to the development of the field.

Aim

The aim of this study has been determined as the investigation of management theories applied in the field of educational management through content analysis.

Limitations

This research is limited with 20 articles on educational management and management theories published between 1999-2015 and indexed in www.ulakbib.qov.tr social area database.

MATERIALS AND METHODS

Research model

The research was conducted by means of content analysis technique in connection with document analysis, which is one of the qualitative research methods. Content analysis is one of the most frequently used types of qualitative data analysis. It is a deductive method used largely in the analysis of written and visual data. In content analysis, the researcher primarily devises categories related to the subject matter of the research. He subsequently counts the words, sentences or pictures which fall into these categories in the data set he examined. The qualitative research is a method where the subjects are thoroughly investigated and the researcher also includes his interpretations. The qualitative research is based on the assumption that the reality should be comprehended through a perspective of the subjective values of the researcher and that the latter should use a personal language in his research report [9].

Data collection

As the data collection tool, 181 articles in www.ulakbim.qov.tr database which were written in Turkish language and published in scientific journals were examined and it has been decided to analyse 20 articles for research purposes.

Evaluation of data

The data were analyzed by the content analysis method using the SPSS 20 program. The initial version of SPSS computer program was released in 1968 for statistical analyses and its last version is SPSS 22. Content analysis is the systematic analysis of data obtained from the archives, documents and articles by social scientists with a view to attach meaning thereto. It is a research technique which enables the realization of communication content generally through pre-determined classifications (categories). The content may be anything varying from newspaper reports or articles to television news reports, films, radio programs and movies. In short, any textual, visual, auditory content can be analyzed by the content analysis technique [15,133]. Content analysis is defined as an empirical method describing the contextual and formal characteristics of statements [17,18].

Findings

181 articles retrieved by using the keywords of Educational Management and Management Theories were examined and 20 of them were decided to be used based on the analysis of the relationship between Educational Management and Management Theories.

Table 1: Distribution of Articles by Years

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Years		f	%
2015		5	25
2009		5	25
2007		2	10
2003		2	10
2002		2	10
2011		1	5
2010		1	5
2008		1	5
1999	1	5	Total:
20		100	

As indicated in [Table 1], years 2015 and 2009 rank first in the distribution of articles by years.

Table 2 : Distribution of the Theories Used in the Articles

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Theories		f	%
Total Quality Management	8		40
Management Theories (General)		5	25
Modern Management Theories		2	10
Classical Management Approach		1	5
Weber's Bureaucracy Approach		1	5
Systems Approach		1	5
X and Y Approach		1	5
Restructuring Theory		1	5
Total :		20	100

As per [Table 2], it was concluded that the Total Quality Management Theory is the subject dealt with the most with a percentage of 40%.

Table 3: Distribution of Articles by the Universities They Were Produced In

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University :	f	%
Osmangazi University	3	15
Selçuk University	3	15
Near East University	1	5
Marmara University	1	5
Atatürk University	1	5
Anadolu University	1	5
Afyon Kocatepe University	1	5
Nevşehir University	1	5
Sakarya University	1	5
Çanakkale On Sekiz Mart University	1	5
University of Turkish Aeronautical Association	1	5
İnönü University	1	5
Abant İzzet Baysal University	1	5
Dicle University	1	5
Gazi University	1	5
Gaziosmanpaşa University	1	5
Total:	20	100

As per [Table 3], the universities which produced the highest number of publications are Osmangazi and Selçuk Universities with a percentage of 15%.

Table 4: Distribution of Articles by the Method Used

Table 4: Distribution of Articles by the Method Used

Method	f	%
Quantitative :	11	55
Qualitative :	6	30
Literature Review :	3	15
Total:	20	100

The examination of [Table 4] reveals that the Quantitative Method is the most widely used method with a percentage of 55% and it is followed by the Qualitative Method with a percentage of 30%. The method used the least, however, was found out to be the literature review.

Other studies conducted in the field

According to Mustafa Yavuz (2009), when the views and practices of school principals with respect to management are evaluated in terms of management theories, it is seen that these views and practices are in parallel mostly with the assumptions of classical theories.

According to Basaran [6], as recited by Yıldırım, the organization is regarded as an instrument of management. The management forms and runs the organization in order to accomplish its goals. Bursalıoglu [7], on the other hand, defines school management as the implementation of educational management in a limited area and states that the school management sustains the school in line with defined aims.

Ozgan and Summak [32] conclude that certain social, emotional and spiritual abilities of primary school principals are influential on their mastery of using management processes. Researchers have thus reached the following conclusions.

1-The perceptions of teachers on school principals' ability to use management processes are positive and above the average.
2-It has been observed that certain social, emotional and spiritual abilities of primary school principals are linked with the efficiency of their using management processes.

3-It has been concluded that the overall management skills and characteristics (certain social, emotional and spiritual competencies) of primary school principals may be predictive of their competency to use management processes.

According to Ozturk, educational theories and applications cannot be fully comprehended without being evaluated as based on the background of the political economy of the time. Recently, neo-liberal policies make their presence felt rapidly in the area of education, the ramifications of which can be seen in the network-based education.

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DISCUSSION AND CONCLUSION

In the articles analyzed under the study in the context of the relationship between educational management and management theories in educational institutions, it is seen that the biggest number of articles was generated in 2009 and 2015. Total quality management, on the other hand, has been the subject matter which was dealt with the most in the articles. As for other studies made in the field of educational management, it is seen that the most widely addressed subject matter is again total quality management. The quantitative method was the most widely used method and it was followed by the qualitative and literature review methods respectively. It is also seen that the majority of the articles in this field were written in Osmangazi and Selçuk universities.

As for other studies in this field, it is seen that they largely involved the classical, neo-classical and management theories. While the articles analyzed under the study dealt with the same theories, it is seen that very few studies addressed contemporary management techniques in both the articles under the study and other studies in the field. The most widely used method in the other studies in the field was the quantitative method followed by the qualitative method.

Suggestions

Suggestions for the researchers: In the articles, the classical, neo-classical and modern management theories as well as contemporary management techniques and educational management issues were investigated. However, apart from certain management techniques pertaining to the contemporary management techniques, the number of researches and articles on these techniques in general is little if any. It is thus believed that making researches on contemporary management techniques will contribute greatly to educational management and the researchers.

Suggestions for educational administrators: In the globalized world, the emergence of new concepts of administration as well as competition conditions have led to contemporary management techniques. While designating the forms of management for educational administrators, it is suggested to implement the management theory which is most suitable for the organization in line with internal and external factors and the prevailing environmental conditions. This is of utmost importance for the survival of organizations presently.

CONFLICT OF INTEREST
There is no conflict of interest.

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ARTICLE

SOCIAL AND EMOTIONAL PROBLEMS FACED BY GIFTED INDIVIDUALS

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ABSTRACT

The purpose of this research is to identify the psychologist' opinions on social and emotional problems faced by gifted individuals. The research was designed with in qualitative research approach. The study group of the research consisted of 10 psychologists working at public hospitals and private clinics in Northern Cyprus. A semi-structured interview form was used as the data collection tool which consisted of directives on how to fill in the form, six open-ended questions and a semi-structured interview form developed by the researcher. The data obtained from interview forms were transferred to NVivo 11 qualitative data analysis programme through computer and analyzed with content analysis. According to results of the research, it was concluded that gifted individuals experienced social problems with their environment such as unconformity, loneliness, hardships in peer relations and exclusions; such emotional problems as perfectionism, mood and anxiety disorders, loneliness, introversion. In addition, differences were detected between the application approaches of counselees with and without gift, and it was found out that there were extensive approaches suitable for individual in terms of individual hardship areas. Another finding was that the counselling differences of counselees with and without gift were related to mood disorders, support and approval; as regards problems faced in counselling process, hardships in opinions, lack of a suitable and guiding institution, and the intensiveness and uncontrollability of control and impulse mechanisms.

KEY WORDS
Gifted, social problems, emotional problems, environmental problems

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INTRODUCTION

Since mankind existed on earth he was affected by the events in his environment and he affected his environment with various activities [10]. As a result of this interaction, it is possible than human, as a social being, has social and emotional problems with his environment due to his nature. It is an obligation that society utilizes qualified people so that it can self-suffice and create a sustainable development. In this context, social and environmental factors assuming a positive role and gifted students can be raised or introduced to the society with different support programmes [5]. American National Association for Gifted Children (NAGC) defines a gifted person as one who displays or has the ability to display high performance in multiple areas. These areas are general intellectual gift, specific academic gift, leadership, creativeness, visual and applied arts [13].

A gifted individual has some developmental peculiarities compared to their peers. According to the reports of the parents of gifted individuals, some of the babyhood characteristics of these people are as follows: long terms of attention, activity, knowing and smiling caretakers in the first years following birth, over-reaction and anger for noise, remembering most of the things they see for the first time, learning first, language development in the first months, asking "why" and "how" questions following "what" questions, reactionary attitude towards happenings [21].

Gifted individuals frequently show some different social and emotional features in their relations with other individuals. However, emotional intensity and energy are features which start developing in babyhood and continue to develop in childhood. Gifted individuals have a strong sense of justice in their relations with people. As sense of social and justice is well-developed in gifted individuals they are extremely willing in helping other people. They have a humour development which can easily recognize and evaluate tragicomic situations, inconsistencies and maladaptation to daily events. These individuals are filled with excessive energy to finish everything exactly the way they have to be done. They do not like themselves or others making mistakes [3].

As their cognition develops earlier and faster than individuals with normal development, they have difficulty in having interaction and making friendships with their peers. In this case, gifted individuals prefer being friends with adults and other people who are older than them and establish strong connection with these people. It is emphasized that intellectual gift has both positive and negative impacts on the individual. If positive conditions are not provided to individuals with intellectual gifts and skills, problems related to self-confidence, respectability, self-esteem, working discipline and success can emerge [19].

It is observed that gifted individuals suffer from problems related to non-synchronous development, peer relations, excessive personal criticism, perfectionism, and over-potential based on their characteristic features. Due to the fact that cognitive skills and motor skills do not develop simultaneously, individuals can imagine in their minds what they want to do, but their motor skills are not developed enough to reach their goals. This situation can lead to intense disappointment or emotional explosions. Due to the ability to foresee possibilities and alternatives, they can ideally see what they can do, and when they approach to the ideal but still fail, they tend to be excessively critical of themselves [2, 20]. Gifted individuals can see the possible problems in an activity. Avoiding possible problems can mean avoiding risk-taking, which can result in failure [26].

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Gifted individuals may fail to display their potential as their high-level cognitive skills and motor skills do not develop simultaneously. Audio and visual defects or learning difficulties can result in efforts paid in void. This situation creates self-evaluation tendency as to what they cannot perform. It is seen that exogenous problems experience by gifted individuals are mostly related to school culture and norms, expectations of others and peer relations [11,9]. Gifted individuals have to be provided with environment suitable for their level starting from early ages so that they can enjoy holistic development in accordance with their characteristics [8]. Diagnosis and evaluation of such individuals has to be done by counsellors who will direct them for their social and emotional problems. On the other hand, people around the gifted individuals are those who experience with them the problems they face. Finding out the opinions of psychologists is essential for the education of gifted individuals and solving their problems. It is known that efforts for identification of gifted individuals, creation of programmes for them and development of education contents are showing slow progress [17,5].

Within this framework, many educationists, counsellors and psychologists indicate the interaction between the social, cognitive, and emotional aspects of development; however, it can be claimed that the programmes developed for gifted individuals usually neglect social and emotional aspects [4,18]. Therefore, in this context, determination of emotional and social problems has an essential place in terms of the education process of gifted individuals. Gifted individuals suffer from some social and emotional problems due to their characteristics. It is essential in terms of introducing them to the society that gifted individuals with problems of social adaptation benefit from counselling processes and practices. Accordingly, a study is needed for receiving the opinions of psychologists as regards the social and emotional problems of gifted individuals as well as identifying their practices. In the light of the findings and conclusions obtained from this research, social and emotional problems of gifted individuals will be identified and solutions will be offered to these problems. Social and emotional developments of individuals who need special education is as important as their cognitive development [12].

It is essential that the kinds of problems experienced by these people are identified first so that their social and emotional development can be effectively completed. In the literature, resources doubt that such characteristics are valid for every individual, and it is believed that it is essential to discuss with psychologists to display the kind of social and emotional problems of these people. The aim of this study is to determine the social and emotional problems faced by gifted individuals and introduce them to the society. It will make a contribution to the field due to the lack of studies on social and emotional problems of gifted individuals.

Purpose of the study

The purpose of this study is to determine the opinions of psychologists on the social and emotional problems faced by gifted individuals.

The sub-purposes determined within the scope of this study are given below:

1.What are the opinions of psychologists as regards the social problems experienced by gifted counselees with their environment?
2.What are the opinions of psychologists as regards the emotional problems experienced by gifted counselees?
3.According to psychologist opinions, what are the differences of gifted counselees and non-gifted counselees in their approach to practices?
4.What are the counselling differences between gifted and non-gifted counselees according to psychologist opinions?
5.What are the psychologist opinions as regards the difficulties experienced in counselling processes with gifted counselees?
6.What kind of a process is followed by psychologists in the process of counselling to gifted individuals as regards their cooperation with their environment according to non-gifted counselees?

MATERIALS AND METHODS

Research model

In this research qualitative research method is used. Qualitative research can be defined as "research which uses qualitative data collection techniques such as observation, interview and document analysis, which follows a qualitative process for displaying in a realistic and holistic manner perceptions and events" [27]. Qualitative research is a method which is based on a holistic viewpoint and examines the research problem with an interpretive approach. The phenomena and events which are studied are handled in their own context and interpreted in terms of the meanings attached to them [1]. Qualitative research is one of the knowledge production methods which people developed in order to solve their own secrets and explore the depths of social systems that they shape with their own effort.

Descriptive analysis is a qualitative research pattern and has four stages [27}. (1) Creating a framework for descriptive analysis, (2) processing data according to thematic framework, (3) defining the findings, (4) interpreting the findings. This study is described as a descriptive analysis as it organizes and interprets data according to predetermined themes.

Study group

The study group of the research consists of 10 psychologists who are working at clinic, private hospital and public hospital in Northern Cyprus and are counselled by gifted individuals.

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At the stage of determining the study group, it was found out that there were 80 psychologists registered at Cypriot Turkish Psychologists Association but only 40 of them were active. In the preliminary interviews held with these 40 people, it was found out that only 15 psychologists were counselled by gifted individuals and these 15 psychologists were given the semi-structured interview form questions within the research. At the end of these interviews, 5 interview results which did not provide sufficient answers were not included in the study and the results of only 10 interviews were used in the study.

Of the psychologists who participated in the study, 3 are working at public hospitals, and 7 are working at private hospitals and clinics. Eight of the psychologists are females and 2 are males. This ratio is valid for the entire TRNC. It is seen that active psychologists are mostly females. All psychologists are working in Nicosia district; however, 5 psychologists are working in Kyrenia, Famagusta, Güzelyurt and Lefke districts on a half-time basis for certain days of the week; which is a general practice in TRNC.

Data collection tools

The most frequently used qualitative method is interview. The reason for which interview is one of the most widely used data collection method is that this method is very strong in terms of exploring the data, opinions, experiences and emotions of individuals and that it is based on conversation [27]. In order to collect data in the research, semi-structured interview form consisting of 6 questions developed by the researcher was used. In order to control the content validity of the data collection tools developed by the researcher, expert opinion was sought and their reliability and validity was determined based on expert opinions; as a result, the application took its final form. Following this method, an effort was paid to ensure the scope and outlook validity of the measuring tool, as it is emphasized that scope and outlook validity of a measuring tool can be evaluated by expert opinions.

Pilot application helps the researcher in seeing how well the interview form in prepared and understanding whether the expressions used are suitable for the interviewed group [27}. For this reason, 4 experts from the field, 1 Turkish language expert and 2 measuring-evaluation experts provided their opinions and controls based on which the interview form was amended and tested on three psychologists before it was used as a data collection tool. The interview form was given its final shape based on the reactions and answers of the interviewed individuals to the questions asked.

Collection of data

Psychologists who participated in the research were asked to participate in the study voluntarily (without forcing of any kind). Interviews were held between February and May 2017 at the hospitals and clinics where the participants were working. Data were obtained by means of face-to-face interviews (with 10 psychologists), written answers given to questions and e-mails on the internet. Interviews were mostly conducted in morning and afternoon hours and took one hour on average. Interviews were recorded to voice recorders upon permission from candidates and then they were transcripted. Thus, losing data of the study was prevented.

Analysis of data

The data obtained from the study were analyzed using suitable statistics taking into consideration the opinions of statistics experts. In addition, analyzed data were explained and interpreted in the form of tables. The data obtained from the opinions of psychologists as regards their experiences with social and emotional problems of gifted individuals were analyzed using Nvivo 11 package programme.

“Descriptive analysis” technique was used in examination of the data collected in the study. According to this approach, collected data are summarized and interpreted as per the previously created themes. The purpose of such analysis is to present to the reader the obtained data in an organized and interpreted manner [27]. Data in this research were presented taking into consideration the questions used in the interview. Messages (codes) were obtained from answers given to every question. Later, similar codes were collected under the same group and categories were formed. Then, the frequencies and percentages of determined categories were presented. Frequencies and percentages are not based on the number of teachers who participated in the study; they are based on the messages displayed by teachers. This is due to the fact that some teachers displayed codes (messages) in more than one question, whereas they left some questions unanswered. Direct citations were frequently used in order to reflect the opinions of interviewees in a striking manner. The following steps were taken to ensure reliability and validity:

Validation

collected data were written in detail and clear and understandable explanation was made to show how the conclusions were reached. Opinions of interviewed psychologists were presented with frequent citations and the results of the research were explained based on these data. Thus, the validity test of the study was conducted.

Internal validity

findings of the study are consistent and meaningful in itself. Emerged concepts create a whole. In addition, the findings obtained are compatible with the created conceptual framework. This framework was employed in data

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collection; research questions were prepared in accordance with this framework. In short, consistency was ensured both in data collection processes and in analyzing and interpreting these data and detailed explanation was provided as to how this validity was ensured. The researcher who conducted the study always questioned herself and the research process with a critical eye; she checked whether the findings she obtained and the conclusions of these findings reflected reality [27}.

External validity

research results are consistent with the conceptual framework related to the research question. The research has necessary explanations so that the findings can be tested against other studies. In order to ensure that research findings can be generalized to similar media, the researcher provided the reader detailed information on all stages of the study. The reader may be unable to make direct generalization to her media based on the research conclusions; however, he can extract some lectures or experiences which can be valid for his own media. If this happens, the generalizability of the conclusions of qualitative research will improve [27}.

Reliability

The researcher avoided directing psychologists who were interviewed in this study. Briefly, the role of the researcher was ensuring that psychologists talked on the subject and purpose of the research. The data obtained through interviews in the study were analyzed by the researcher and messages (codes) and categories were determined. In order to display the reliability of the coding used in the research, 5 of the 10 papers were randomly selected, evaluated by the researcher and her counsellor independently; and consistency between the evaluations of two data processors (coders) was checked [24]. Calculations showed that consistency between data processes was 80 percent. For the reliability of a research, at least 70% agreement is needed between coders. As this percentage was exceeded in this study, it was concluded that the papers were measured in a reliable manner in terms of the determined categories. The second action taken by the researcher in terms of external reliability is that the individuals who were data sources were clearly defined. Thus, other researchers who will conduct similar studies can rely on these definitions while preparing their sample. For this reason, the individuals interviewed in this study were defined in an open-ended manner. Data were stored so that they could be examined by third parties [27}.

RESULTS

In this section, content analysis was performed based on the research problem and its sub-purposes and findings were presented in the form of tables. In these tables psychologist opinions were presented by giving their frequency values and direct citations were made. The codes beside direct citations represent psychologists. Names of the psychologists were not used and coding was made with numbers.

Findings as regards opinions of psychologists as regards the social problems experienced by gifted counselees with their environment

The first sub-problem of the study was determined as "What are the opinions of psychologists as regards the social problems experienced by gifted counselees with their environment? Interviews were conducted with psychologists in order to find an answer to this sub-problem.
While presenting the findings, the themes, sub-codes and frequency values of psychologist opinions were given in the form of a table. Phycologist opinions were coded as "P1, P2" without giving their names and their opinions were presented with direct citations.

Table 1: Opinions of psychologists as regards the social problems experienced by gifted counselees with their environment

Theme		Sub-codes	
Social problems related to the environment		Adaptation	
		Loneliness	
		Difficulties in peer relations	
		Exclusion	
		Not being understood	
		Dissatisfaction	
		Not being accepted	

As can be seen in [Table 1], as regards the problems experienced by gifted counselees with their environment, 7 of the 10 psychologists who were interviewed with the purpose of finding out the psychologist opinions said that

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the problem was related to adaptation and loneliness, 6 indicated difficulties in peer relations, 4 mentioned exclusion, 3 indicated not being understood, another 3 said it was dissatisfaction and 2 claimed that it was not being accepted.

Most of the psychologists who participated in the study stated that they thought that the social problems experienced by gifted counselees with their environment were adaptation and loneliness. As regards adaptation:

P2: "adaptation difficulties, not being understood, difficulties in peer relations, choosing loneliness rather than spending time with peers, curiosity above their socio-cultural environment, dissatisfaction and the sense of loneliness."
P5: "The lack of adaptation is usually the problem they experience with their peers. Sometimes this case leads them to be detached from their friends and exclusion. They are left alone when there is no one to share their opinions and feelings.
P10: "maladaptation they experience with their peers is visible. It can cause them to be excluded. They are left alone in cases when they cannot share their feelings and opinions." were the views they presented.

As regards loneliness:

P2: "Adaptation difficulties, not being understood, difficulties in peer relations, choosing loneliness rather than spending time with peers, curiosity above their socio-cultural environment, dissatisfaction and the sense of loneliness.
P3: "They are often experiencing exclusion in their peer group, which results in isolation. Particularly as they grow older they feel that they are not understood and become more introverted ".
P10: "Maladaptation they experience with their peers is visible. It can cause them to be excluded. They are left alone in cases when they cannot share their feelings and opinions." were the views they presented.
Some of the interviewed psychologists stated that the social problems experienced by gifted counselees with their environment were caused by difficulties in peer relations. In this sense:
P3: "They are often experiencing exclusion in their peer group, which results in isolation. Particularly as they grow older they feel that they are not understood and become more introverted ".
P5: "The lack of adaptation is usually the problem they experience with their peers. Sometimes this case leads them to be detached from their friends and exclusion. They are left alone when there is no one to share their opinions and feelings."
P10: "Maladaptation they experience with their peers is visible. It can cause them to be excluded. They are left alone in cases when they cannot share their feelings and opinions." were the views they presented.
Some of the interviewed psychologists stated that the social problems experienced by gifted counselees with their environment were caused by loneliness. In this sense:
P3: "They are often experiencing exclusion in their peer group, which results in isolation. Particularly as they grow older they feel that they are not understood and become more introverted ".
P5: "The lack of adaptation is usually the problem they experience with their peers. Sometimes this case leads them to be detached from their friends and exclusion. They are left alone when there is no one to share their opinions and feelings."
P10: "Maladaptation they experience with their peers is visible. It can cause them to be excluded. They are left alone in cases when they cannot share their feelings and opinions." were the views they presented.
Some of the interviewed psychologists stated that the social problems experienced by gifted counselees with their environment were caused by not being understood and dissatisfaction.

As regards not being understood:

P2: "Adaptation difficulties, not being understood, difficulties in peer relations, choosing loneliness rather than spending time with peers, curiosity above their socio-cultural environment, dissatisfaction and the sense of loneliness.
P3: "They are often experiencing exclusion in their peer group, which results in isolation. Particularly as they grow older they feel that they are not understood and become more introverted ".
P7: "Exclusion from peer group can be experienced. It can result in isolation. They are experiencing social isolation based on the opinion of not being understood." were the views they presented.

As regards dissatisfaction:

P2: "Adaptation difficulties, not being understood, difficulties in peer relations, choosing loneliness rather than spending time with peers, curiosity above their socio-cultural environment, dissatisfaction and the sense of loneliness.
P8: "maladaptation to the environment, most of the time not being accepted and dissatisfaction are experienced."
P9: "Adaptation difficulties, hardships in peer relations, preferring loneliness, dissatisfaction, sense of loneliness" were the views they presented.
Very few of the interviewed psychologists stated that the social problems experienced by gifted counselees with their environment were caused by lack of acceptance. In this sense:
P4: "maladaptation to the environment, not being accepted most of the time, failure to establish sincere relations and being superficial."
P8: " maladaptation to the environment, not being accepted most of the time, and dissatisfaction are experienced." were the views they provided.

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According to the opinions of psychologists as regards the social problems that gifted individuals experience with their environment, most psychologists stated that the problem was related to adaptation and loneliness. Some of the psychologists indicated that the problems were in peer relations while some others claimed that it was exclusion. Another view was that not being understood and dissatisfaction was the most important cause while very few stated that the problem was not being accepted. Other opinions on social problems were extreme curiosity towards environment and social isolation.

Thus, it can be interpreted that counselling has to be received and seminars have to be organized as regards the social problems experienced by gifted individuals.

Opinions of psychologists as regards the emotional problems experienced by gifted counselees

Interviews were conducted with psychologists to determine the findings as regards the answers given by psychologists to the question "What are the opinions of psychologists as regards the emotional problems experienced by gifted counselees?"

While presenting the findings, the themes, sub-codes and frequency values of psychologist opinions were given in the form of a table. Phycologist opinions were coded as "P1, P2" without giving their names and their opinions were presented with direct citations.

Table 2: Psychologist opinions as regards emotional problems experienced by gifted counselees

Theme	Sub-codes	f
Problems related to emotional issues	Perfectionism	6
	Mood disorders	5
	Loneliness	4
	Introversion	4
	Sense of insignificance	2
	Lack of self-esteem	2
	Expression difficulties	2

As can be seen in [Table 2], as regards the emotional problems experienced by gifted counselees, 7 of the 10 psychologists who were interviewed with the purpose of finding out the psychologist opinions said that it was perfectionism, 5 said it was mood disorders, 4 said it was loneliness, another 4 stated that it was introversion, and 2 each indicated sense of insignificance, lack of self-esteem and expression difficulties.
Most of the psychologists who participated in the study stated that the emotional problems of gifted counselees were related to perfectionism. In this sense:

P5: "Perfectionism becomes important. They cannot take risks. Sometimes they just orient towards the points they are good at. Thus, they have difficulties in exploring other aspects. They are suffering from lack of self-esteem in points that they feel weak. They also have difficulty in expressing themselves."
P9: "Loneliness and introversion are more frequently observed. Perfection and social isolation behaviours are witnessed."
P10: "Perfectionism behaviours. They can have difficulty in expressions." were the views they provided.
Some of the psychologists who participated in the interview stated that the emotional problem of gifted counselees was mood disorders. In this sense:
P3: "Anxiety disorders and depressive problems."
P7: "Mood disorders can be seen. Anxiety and depression." were the views they provided.
Some of the psychologists who participated in the interview stated that the emotional problem of gifted counselees was loneliness and introversion. As regards loneliness:
P4: "Despite intense efforts to show themselves in a good mood and camouflage their feelings, what they feel is loneliness and insignificance."
P9: "Loneliness and introversion are more frequently observed. Perfection and social isolation behaviours are witnessed." were the views they provided.

As regards introversion:

P6: "introversion, self-esteem problems and perfectionism are experienced more frequently."
P9: "Loneliness and introversion are more frequently observed. Perfection and social isolation behaviours are witnessed." were the views they provided.
Very few of the psychologists who participated in the interview stated that the emotional problem of gifted counselees was sense of insignificance, lack of self-esteem and expression difficulties. As regards sense of insignificance:
P4: "Despite intense efforts to show themselves in a good mood and camouflage their feelings, what they feel is loneliness and insignificance." were the views they provided.

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As regards lack of self-esteem:
P5: "Perfectionism becomes important. They cannot take risks. Sometimes they just orient towards the points they are good at. Thus, they have difficulties in exploring other aspects. They are suffering from lack of self-esteem in points that they feel weak. They also have difficulty in expressing themselves."
P6: "introversion, self-esteem problems and perfectionism are experienced more frequently." were the views they provided.

As regards expression difficulties:

P5: "Perfectionism becomes important. They cannot take risks. Sometimes they just orient towards the points they are good at. Thus, they have difficulties in exploring other aspects. They are suffering from lack of self-esteem in points that they feel weak. They also have difficulty in expressing themselves."
P10: "Perfectionism behaviours. They can have difficulty in expressions." were the views they provided.
It is observed that, according to the opinions of psychologists as regards the emotional problems of gifted counselees, they put most emphasis on mood disorders.

It can be interpreted that, among the emotional problems of gifted counselees, loneliness and introversion are more widely seen than sense of insignificance, lack of self-esteem and expression difficulties.

It is seen that psychologists who participated in the research indicated social isolation, irritability and camouflaging emotions were cited by few participants among the emotional problems of gifted counselees.

Findings as regards psychologist opinions on the differences of gifted counselees and non-gifted counselees in their approach to practices

Interviews were conducted with psychologists to determine the findings as regards the answers given by psychologists to the question "what are the differences between approaches to practice gifted counselees and non-gifted counselees?

While presenting the findings, the themes, sub-codes and frequency values of psychologist opinions were given in the form of a table. Phycologist opinions were coded as "P1, P2" without giving their names and their opinions were presented with direct citations.

Table 3: Psychologist opinions on the differences of gifted counselees and non-gifted counselees in their approach to practices

Theme	Sub-codes	f
Differences in practice approaches	Depending on individual difficulty areas	5
	Being comprehensive	3
	Approaches suitable for the individual	2

As can be seen in [Table 3], the reasons for choosing the applications that psychologists who participated in the study use in order to determine the differences in application approaches of gifted and non-gifted counselees are collected under theme and three sub-codes.

In order to find out the differences between the practice approaches of psychologists towards gifted and non-gifted counselees, interviews were conducted with 10 psychologists. Five of the psychologists stated that the reason was according to individual difficulty areas, 3 stated being comprehensive and 2 claimed that they were approaches suitable for the individual.

Most of the psychologists who participated in the study stated that the different applications they used were depending on individual difficulty areas. In this sense:

P3: "If it is about hyperactivity treatment is postponed until functionalism interacts. Especially Individual Behaviourist Therapy becomes an approach as it is more preferred."
P4: "I am working with a different approach in awareness and insight efforts. Taking into consideration emotional and psychological situations, I am working by finding the most suitable approach for the person. In addition, approaching with a suitable language becomes important in the face of the capacity and comprehension of the counselee."
P5: "With gifted individuals, I work more with how they will use what they learn rather than learning self. I put emphasis on self-expression. I elaborate on their reaction towards environment and moving away from their environment as they are not understood."
P7: " If it is about hyperactivity treatment is postponed until functionalism interacts. Especially Individual Behaviourist Therapy becomes an approach as it is more preferred."
P8: "Clear differences are seen in senses of self and awareness levels. Gifted counselees have intense feelings as regards establishing themselves and being accepted."
P9: "Like other individuals who develop normally, they are evaluated according to the individual areas of difficulty."

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P10: “I am working on self-expression. I am working on their reaction towards environment as they are not understood and their moving away from the environment.” were the views they provided.

Some of the psychologists who participated in the study stated that the different applications they used were comprehensive. In this sense:

P1: "More effective and comprehensive."
P2: "After comprehensive evaluation process the child is being followed according to individual areas of difficulty just like other individuals who show normal development.”
P6: "Differences can be identified after comprehensive evaluation like the case in other individuals. No clear difference was observed. However, the situations mentioned above are noticeable.” were the views they provided.

Some of the psychologists who participated in the study stated that the different applications they used were suitable for the individual. In this sense:

P3: “If it is about hyperactivity treatment is postponed until functionalism interacts. Especially Individual Behaviourist Therapy becomes an approach as it is more preferred.”
P4: “I am working with a different approach in awareness and insight efforts. Taking into consideration emotional and psychological situations, I am working by finding the most suitable approach for the person. In addition, approaching with a suitable language becomes important in the face of the capacity and comprehension of the counselee.”
P5: “With gifted individuals, I work more with how they will use what they learn rather than learning self. I put emphasis on self-expression. I elaborate on their reaction towards environment and moving away from their environment as they are not understood.”
P7: "Individual Behaviourist Therapy becomes an approach as it is more preferred."
P8: "Clear differences are seen in senses of self and awareness levels. Gifted counselees have intense feelings as regards establishing themselves and being accepted.”
P9: “Like other individuals who develop normally, they are evaluated according to the individual areas of difficulty.”
P10: “I am working on self-expression. I am working on their reaction towards environment as they are not understood and their moving away from the environment.” were the views they provided.

It can be interpreted that psychologists who participated in the study showed differences in their practical approach towards gifted and non-gifted counselees depending on individual areas of difficulty, approaches suitable for the individual and comprehensibility.

Findings on the counselling differences between gifted and non-gifted counselees according to psychologist opinions

Interviews were conducted with psychologists to determine the findings as regards the answers given by psychologists to the question “What are the counselling differences between gifted and non-gifted counselees according to psychologist opinions?”
While presenting the findings, the themes, sub-codes and frequency values of psychologist opinions were given in the form of a table. Psychologist opinions were coded as “P1, P2” without giving their names and their opinions were presented with direct citations.

Table 4: The counselling differences between gifted and non-gifted counselees according to psychologist opinions

Theme	Sub-codes	f
Counselling differences	Mood and anxiety disorders	8
	Support and approval	8
	No clear difference	4
	High awareness levels	2

As can be seen in [Table 4], the opinions of psychologists who participated in the study as regards the differences between gifted and non-gifted counselees are collected under four sub-codes:

In order to find out the differences between the practice approaches of psychologists towards gifted and non-gifted counselees, interviews were conducted with 10 psychologists. Eight of these psychologists indicated mood and anxiety disorders, another r8 stated support and approval, 4 stated that there was no clear difference, and 2 mentioned high awareness levels.

Most of the psychologists who participated in the study mentioned mood and anxiety disorders, support and approval in their opinions as regards the counselling differences between gifted and non-gifted counselee. As regards mood and anxiety disorders:

P3: "My gifted counselees are mostly applying with mood disorders or anxiety disorders."
P4: "There are clear differences in senses of self and awareness levels. In addition, gifted counselees have intense feelings as regards establishing themselves and being accepted."
P7: "My gifted counselees are mostly applying with mood disorders or anxiety disorders ".
P8: "There are clear differences in senses of self and awareness levels. In addition, gifted counselees have intense feelings as regards establishing themselves and being accepted." were the views they provided.
As regards support and approval:
P4: "There are clear differences in senses of self and awareness levels. In addition, gifted counselees have intense feelings as regards establishing themselves and being accepted."
P5: "Gifted individuals usually give their own decisions. However, non-gifted counselees demand support and approval form their environment."
P8: "There are clear differences in senses of self and awareness levels. In addition, gifted counselees have intense feelings as regards establishing themselves and being accepted."
P10: "They usually give their own decisions. However, non-gifted counselees demand support and approval form their environment "were the views they provided.

Some of the psychologists who participated in the study stated that there was not a clear difference between the counselling of gifted and non-gifted counselees. In this sense:

P1: "There is no clear difference."
P2: "Differences can be determined after a comprehensive evaluation just like the case with other individuals. No clear difference was observed. However, the situations given above are noticeable."
P9: "Differences can be determined after a comprehensive evaluation just like the case with other individuals. No clear difference was observed." were the views they provided.
Very few psychologists who participated in the interview stated high awareness levels as regards the differences of counselling between gifted and non-gifted counselees. In this sense:
P4: "There are clear differences in senses of self and awareness levels. In addition, gifted counselees have intense feelings as regards establishing themselves and being accepted."
P8: "There are clear differences in senses of self and awareness levels. In addition, gifted counselees have intense feelings as regards establishing themselves and being accepted." were the views they provided.

It can be interpreted that psychologists who participated in the study believed that the differences in application approaches to gifted and non-gifted counselees resulted from mood and anxiety disorders, support and approval compared to "no clear difference" and high awareness level.

Findings on psychologist opinions as regards the difficulties experienced in counselling processes with gifted counselees

Interviews were conducted with psychologists to determine the findings as regards the answers given by psychologists to the question "What are the psychologist opinions as regards the difficulties experienced in counselling processes with gifted counselees?"

While presenting the findings, the themes, sub-codes and frequency values of psychologist opinions were given in the form of a table. Psychologist opinions were coded as "P1, P2" without giving their names and their opinions were presented with direct citations.

Table 5: Psychologist opinions as regards the difficulties experienced in counselling processes with gifted counselees

Theme	Sub-codes	f
Difficulties experienced in counselling process	Difficulty in opinions	3
	Lack of directing suitable institution	2
	Intensity and uncontrollability of control and impulse mechanisms	2

As can be seen in [Table 5], the opinions of psychologists who participated in the study on the difficulties experienced in counselling process with gifted counselees are collected under three sub-codes.

Among the psychologists who stated their opinions on the difficulties experienced in counselling process with gifted counselees, 3 indicated difficulty in opinions, 2 mentioned lack of directing suitable institutions and another 2 stated intensity and uncontrollability of control and impulse mechanisms.

Most of the psychologists who participated in the study indicated the difficulties in opinions among the difficulties experienced in counselling process with gifted counselees. In this sense:

P1: "They mostly want to have their opinions approved."

P5: "They do not want their opinions to be corrected or receive opinion from others."
P10: "They think that they know." were the views they provided.

Some of the psychologists who participated in the study indicated lack of directing suitable institutions and intensity and uncontrollability of control and impulse mechanisms among the difficulties experienced in counselling process with gifted counselees.

As regards lack of directing suitable institutions:

P3: "The lack of suitable institutions for these children or young people in our country or any suitable institutions for their situations."
P7: "Lack of directing institutions." were the views they provided.

As regards intensity and uncontrollability of control and impulse mechanisms:

P4: "Sometimes their desire to capture the flow and functioning of the session, their control and impulse mechanisms being more intense and uncontrollable, efforts to tell themselves and be accepted."
P8: "They affect counselling sessions with their intensity and uncontrollability of control and impulse mechanisms." were the views they provided.

It can be interpreted that as regards the opinions of psychologists who participated in the study on the difficulties experienced in counselling process with gifted counselees, the difficulties with opinions of gifted individuals is more emphasized than lack of directing suitable institutions and intensity and uncontrollability of control and impulse mechanisms.

Findings on the opinions as regards the processes followed by psychologists in the process of counselling to gifted individuals as regards their cooperation with their environment according to non-gifted counselees

Interviews were conducted with psychologists to determine the findings as regards the answers given by psychologists to the question "What kind of a process is followed by psychologists in the process of counselling to gifted individuals as regards their cooperation with their environment according to non-gifted counselees?"

While presenting the findings, the themes, sub-codes and frequency values of psychologist opinions were given in the form of a table. Psychologist opinions were coded as "P1, P2" without giving their names and their opinions were presented with direct citations.

Table 6: Opinions as regards the processes followed by psychologists in the process of counselling to gifted individuals as regards their cooperation with their environment according to non-gifted counselees

Theme	Sub-codes	f
Cooperation related to environment	Cooperation with family	5
	Cooperation with teachers	2
	Cooperation with the environment	2
	Cooperation difficulty	2

As can be seen in [Table 6], the opinions of psychologists who participated in the study on the kind of process followed by psychologists in the process of counselling to gifted individuals as regards their cooperation with their environment according to non-gifted counselees are collected under four sub-codes.
Among the 10 psychologists who stated their opinions on the kind of process followed by psychologists in the process of counselling to gifted individuals as regards their cooperation with their environment according to non-gifted counselees, 5 stated cooperation with family, 2 mentioned cooperation with teachers, 2 stated cooperation with environment and 2 indicated cooperation difficulties.

Most of the psychologists who participated in the study indicated cooperation with families as regards the process they followed in cooperation of the individuals with their environment in counselling processes with gifted individuals. In this sense:

P2: "It is fundamental to work with all families in the process. For this reason progress with willing families in this group is much easier."
P3: "We are trying to answer and share the situation within a suitable framework with the teachers. We are showing the right approaches as regards the family and separate agreements as regards borders, and sometimes I am directing the family with the purpose of support."
P6: "Cooperation is essential for working with families in the counselling processes."
P7: "Determining the framework of the individual I am making agreement with the families."
P9: "Progress with families is much easier with families." were the views they provided.

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Some of the psychologists who participated in the study indicated cooperation with teachers, cooperation with the environment and cooperation difficulties as regards their cooperation with their environment according to non-gifted counselees. In this sense, about cooperation with teachers:

P3: "We are trying to answer and share the situation within a suitable framework with the teachers."
P7: "By means of cooperating with teachers we are trying to understand the individual as a whole with his environment." were the views they provided.

In this sense, about their environment:

P4: "I am trying to explain the difference of counselee with a suitable language to his environment and trying to overcome prejudices. "
P8: "I am creating a suitable cooperation by talking about the differences of the gifted individual with his environment." were the views they provided.

In this sense, about cooperation difficulty:

P5: "They are more difficult in terms of cooperation, they are right themselves and this makes the process more difficult."
P10: "Their ideas do not change which makes cooperation more difficult and postpones the process." were the views they provided.

It can be interpreted that as regards the process of counselling to gifted individuals related to their cooperation with their environment according to non-gifted counselees, psychologists who participated in the study argued that cooperation with families was more important than cooperation with teachers, cooperation with environment and cooperation difficulties.

CONCLUSION AND DISCUSSION

The conclusions obtained from the study were explained in a consistent manner with sub-purposes and findings.

Conclusions as regards psychologist opinions on social problems of gifted counselees experienced with their environment

Within the scope of this question, when the results as regards the opinions of psychologists on the social problems that gifted counselees experience with their environment are examined, it is observed that 70% of psychologists stated that the social problems that gifted counselees experience with their environment were lack of adaptation and loneliness problems, 60% stated difficulties in peer relations, 40% indicated exclusion, 30% mentioned not being understood and dissatisfaction, and 20% stated not being accepted.
When the conclusion of this study is compared to the conclusions of similar studies, the research conducted by Ogurlu, Birben, Opengin and Yalın examined the relation between loneliness and life satisfaction levels of gifted adolescents. The research concluded that there is a negative relation between loneliness and life satisfaction and in the sample, it was seen that life satisfaction and loneliness levels of gifted adolescents did not show any difference according to gender. In addition, as a result of simple regression analysis, it was found out that 355 of total variance was explained by the loneliness level of gifted participants. These findings show that actions which can prevent loneliness of gifted adolescents at schools and in social environments will increase their life satisfaction [15].

Sontay, Gokdere and Usta compared the "environmental behaviour" levels of gifted students and their peers. Obtained findings showed that gifted individuals are more sensitive than their peers in showing positive behaviors towards their environment [22].

According to the study results that examines the environmental knowledge and attitudes towards environment of gifted individuals at elementary school level includes examining according to such variables as gender, grade and socio-economic level of families, determining whether there is a relation between their environmental knowledge and attitude towards environment and identifying their ability to bring solution to environmental problems. Significant difference was not identified in environmental knowledge of individuals according to gender variable [7,23].

Conclusions as regards psychologist opinions on emotional problems experienced by gifted counselees

Within the scope of this question, when the results as regards the opinions of psychologists on the emotional problems that gifted counselees experience are examined, it is observed that 60% stated perfectionism, 50% indicated mood disorders, 40% mentioned loneliness and introversion, and 20% stated sense of insignificance, lack of self-esteem and expression difficulties.

When the conclusion of this study is compared to the conclusions of similar studies, the research conducted by Ozbay examined the exam anxiety of gifted individuals from the point of sensuality, delusion, self-respect, control focus, self-efficacy and prediction power of problem solving skills. In the prediction of exam anxiety of gifted

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individuals from their perfectionist attitudes, statistically significant relation was found for hasty and avoiding behaviour from problem-solving skills, control focus, self-efficacy beliefs and excessive attention to mistakes and suspicion from behaviours. For delusion dimension, statistically significant relation was found for perfectionism dimensions with hasty, avoiding, self-confident and planned approach, self-respect, external control focus, low self-efficacy beliefs, excessive attention to mistakes, and suspicion from behaviours, family criticism and personal standards [11}.

The research conducted by Dengiz and Yılmaz examined the impact of perceived social support level of gifted individuals on their self-respect. The research concluded that the perceived social support level of participants affected their self-respect, that social support perceived from peers and teachers did not affect self-respect level, that perceived social support level affected self-respect depending on the education status of the mother and socio-economic status of the family, and self-respect was not affected by gender and education status of the father [6].

In another research, Topçu and Taşçılar examined the external-internal motivation levels and self-respect level of gifted individuals according to the gender and grade variables. The study concluded that internal motivation level of gifted individuals decreased at higher grades, whereas external motivation level increased at higher grades [25].

The purpose of the study conducted by Sak was to examine the relation between perfectionism, depression and anxiety levels of adolescents who showed superior and normal intellectual performance. Findings displayed that intellectual levels did not affect the depression, perfection and constant anxiety levels of individuals [21].

In the same direction with this paper, Öpengin and Sak studied the impact of gifted individual label on the perception of gifted individuals for themselves and the attitudes of their parents and friends. The literature on gifted intellect argues that labelling has both positive and negative impacts. Research findings displayed that gifted intellect label did not have an essential change in the perception of individuals towards themselves and attitudes of their parents and friends. Results on the basis of items showed that there is significant increase in" I am feeling lonely among my friends", "My family is always comparing me with other individuals", and "My friends are mocking with my weaknesses" perceptions. In addition, it was found out that individuals labelled as gifted had more negative perception towards the attitudes of their friends compared to normal students [16].

When the conclusions of this study and similar studies are compared, it can be seen that they are similar in terms of perfectionism, mood disorders, loneliness and introversion, sense of insignificance, lack of self-confidence, expression difficulties as regards the emotional problems experienced by gifted individuals.

Conclusions on psychologist opinions on differences of gifted counselees and non-gifted counselees in their approach to practices

Within the scope of this question, when the results as regards the opinions of psychologists on the differences of gifted counselees and non-gifted counselees in their approach to practices are examined, it can be seen that 50% stated individual difficulty areas, 30% mentioned being comprehensive and 20% indicated approaches suitable for the individual.

There are no research findings which support this conclusion. According to the conclusions of the research, it was found out that the differences of gifted counselees and non-gifted counselees in their approach to practices are caused by individual difficulty areas, being comprehensive and approaches suitable for individual. When the relevant literature is examined, it can be seen that due to individual differences of gifted individuals, they need different counselling for their social and emotional problems. It is seen that approaches are applied which are appropriate for these different problems.

Conclusions on psychologist opinions on counselling differences between gifted and non-gifted counselees

Within the scope of this question, when the results as regards the opinions of psychologists on the counselling differences between gifted and non-gifted counselees are examined, it can be seen that 80% indicated mood disorders, anxiety disorders, support and approval in emotions and pinions, 40% mentioned that there was no clear difference, and 20% stated that it was due to high awareness levels.

There are no different research findings which support this conclusion. According to the research findings, it was seen that there were counselling differences between gifted and non-gifted counselees. When the literature as regards these differences is examined, it was concluded that there was supporting information. In the light of this information, it is believed that gifted individuals need counselling depending on the problems they experience.

Conclusions on psychologist opinions on difficulties experienced in counselling processes with gifted counselees

Within the scope of this question, when the results as regards the opinions of psychologists on the difficulties experienced in counselling processes with gifted counselees are examined, it can be seen that 30% stated

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difficulties in opinions and 20% indicated lack of directing institutions and intensity and uncontrollability of control and impulse mechanisms.

There are no research findings which support or are different from this conclusion. When the relevant literature is examined, it can be seen that gifted individuals are experiencing problems which are possibly the result of their characteristics. Based on this information, it was concluded that certain problems are experienced in individual counselling processes due to the personal characteristics of gifted individuals.
5.1.6. Conclusions on psychologist opinions on the process followed by psychologists in the process of counselling to gifted individuals as regards their cooperation with their environment according to non-gifted counselees

Within the scope of this question, when the results as regards the opinions of psychologists on the process followed by psychologists in the process of counselling to gifted individuals as regards their cooperation with their environment according to non-gifted counselees is examined, it can be seen that 50% stated cooperation with families, 20% mentioned cooperation with teachers, cooperation with environment and cooperation difficulties.

The study conducted by Dengiz and Yılmaz (examines the impact of perceived social support level of gifted and superior skilled elementary school individuals on their self-respect. As a result, it concluded that social support level perceived from the family affected self-respect whereas social support level perceived from peers and teachers did not affect self-respect, that the education status of the mother and socio-economic status of the family affected self-respect whereas gender and education status of father did not affect self-respect, and that social support perceived form the teacher did not have any influence on self-respect [6].

In Ogurlu and Yaman's literature search, the characteristics of gifted and talented individuals which affect their communication were studied and clues for communicating with these individuals were emphasized. Among these skills language skills, empathy, play, friendship, leadership, ethical judgement, sensuality, self-respect, perfectionism, hypersensitivity, disappointment and rebelliousness can be listed. Gifted and talented individuals can choose different paths for adapting to the world in an environment where they are not accepted. They can show such tendencies as isolating themselves from the group, showing-off in order to receive attention and acceptance, or trying to look like everyone else. Families, friends and other adults can accept the characteristics of gifted and talented individuals so that they can help them climb the stairs of success and socialization [14].

There are no research findings which agree or disagree with this conclusion. When the conclusions of this study are examined, supporting information can be found in the literature on the process followed by psychologists in the process of counselling to gifted individuals as regards their cooperation with their environment according to non-gifted counselees. The support and cooperation of the environment is essential in counselling process. Relevant literature supports the conclusions reached as regards the environmental support given to the social and emotional problems of gifted individuals including family cooperation, teacher cooperation, environmental cooperation and cooperation difficulties due to their characteristics.

CONFLICT OF INTEREST
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ARTICLE

DEVELOPED SCALE OF TEACHERS' BELIEFS TOWARDS PEER MEDIATION: A VALIDITY AND RELIABILITY STUDY

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ABSTRACT

The purpose of the present study was to develop a scale of teachers' beliefs towards peer mediation. Validity and reliability studies were conducted for the present study. The sample of the study consisted of 373 randomly selected elementary school teachers working in North Cyprus elementary schools. Within the scope of the scale's validity studies, contextual validity was determined based on specialist opinions. No item was omitted from the 24 item draft scale and the Teachers' Beliefs towards Peer Mediation Scale was formed as one dimensional according to the results of confirmatory factor analysis and exploratory factor analysis. The reliability of the scale was tested using internal consistency tests, Cronbach's alpha and the split-half method. The validity and reliability results of the scale regarding teachers' beliefs towards peer mediation" yielded satisfactory results, indicating that the scale is applicable in the field of peer mediation training.

KEY WORDS
Peer Mediation; Scale Validity and Reliability; Teacher Beliefs.

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INTRODUCTION

School environment and education settings are the places where individuals are educated with implemented programs intending to develop students' cognitive, affective and psychomotor areas in-line with their level in education and their age. However, students' social affective developments are somehow neglected and expected to be developed with the implemented of the national education programs. Generally, most of the education systems are in favor of constructivism and develop their education programs on constructivism. Teaching with constructivist strategies is favored due to being effective in cognitive and social development. Moving from this point it is important to pinpoint the differences of cognitive constructivism and social constructivism. Construction of ideas through personal process is cognitive constructivism whereas; students' interaction with the teacher and their peers in the classroom is a process for social constructivism. According to the Vgotsky's zone of proximal development theory, this is a zone for learning where a teacher assists a student in learning [1]. Even though, cognitive constructivism has been through a journey with many theorists, knowledge construction is rather the same. Social constructivism is in-line with Piaget's theory with more dynamic and interactive environment for knowledge construction.

In order to enhance social development of the young generation it is important to have interactive as well as healthy learning settings. Academic development depend on 'healthy learning' settings [2].The development of emotional health is given a big importance and like other developed countries, British Government has also promoted and have given support to peer mediation and published standards regarding this approach [3]. However, globalization has increased the population of multicultural students in schools which is also a one of the big issues in the education environment. Therefore, education settings are in need of teachers' understanding as well as awareness towards their students' ethnic, cultural, and biological differences [4]. Furthermore, violent behavior trends as well as unacceptable manners of behaviors are seen to be escalating in the school environments. The argument of schools being the best places for the violence prevention [5] and programs like conflict resolution and peer mediation programs [6] are in need to be implemented. Even though, the implementation of peer mediation are still an argument these programs date back to 1960's [7]. According to Johnson and Johnson [7], after the implementation of these programs students socialize into standards and are seen to use conflict resolution skills. Good harmony of student-to-student can be empowered by peer mediation interventions [8]. Moreover, Bandura's [9], theory of social learning is seen to match with peer mediation in a sense that it enables opportunities for modeling positive attitudes and imitation that can alter delinquent outcomes.

Thus, teacher beliefs in teaching and learning environments are looked upon as an important issue especially for the contemporary teaching and learning settings. Pajares' [10], discussed and stressed the importance of teacher beliefs. Generally, beliefs can stem from different sources like; personal experience, knowledge, social and cultural background, and many others [11], teaching goals and the teaching practices usually reflect the particular socio-cultural contexts [12]. Teachers tend to resist to the rapid changes within the contexts and students' intrapersonal as well as interpersonal developments are not within the priority of teaching goals [13]. Instead, teachers' focus more on cognitive development and ignore the social development of the students [14].There are also many studies arguing that, any reform in education regarding success or failure relies on teachers' beliefs and consideration [15, 16, 17, 18,19]. Since, students' take their teachers as role models and generally imitate their teachers then, teacher beliefs play an important role in the success of peer mediation programs in schools.

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"Scale of Teachers Beliefs towards Peer Mediation" (STBPM) was developed aiming to measure teachers beliefs towards peer mediation. Firstly, the decision to develop the STBPM was the assumption that applying standards and principles of peer mediation in the classroom settings depend on teachers' beliefs [20]. Secondly, such a scale did not exist in the literature.

INSTRUMENT

The "Scale of teachers Beliefs towards Peer Mediation" (STBPM) was developed in two parts. Participants' "demographic features", such as gender, age, training related to dispute/conflict resolution and dispute occurrences in the teachers' school environment in the first part and peer mediation beliefs questionnaire consisting of 24 items in the second part.

The process of the peer mediation belief scale (STBPM) development started with a literature review within the scope of "principles of peer mediation", "peer mediation programs in schools", "dispute/conflict resolution", "standards of peer mediation", "peer mediation projects" "teacher beliefs". This literature review aimed to diagnose the problem and develop the study's aim accordingly. Furthermore, discussions with elementary school teachers and academics were realized aiming to collect information about "peer mediation beliefs". The item pool was constructed following the literature review and the discussions with teachers and academics. The specialists (n=25) examined the constructed item pool and their views on each item considered for the construction. Turkish language experts (n=15) also examined the comprehension of the items and their feedback on the expression of each item was considered and re-structure. Reliability assessment of the questionnaire procedure, specialists was consulted regarding the answers to each question. Only the questions that achieved a 90% consensus were included into the questionnaire. The first draft version consisted of 30 items, however, six items were omitted and final version consisted of 24 items.

DATA ANALYSIS AND PROCEDURE

Researchers from different social science disciplines have debated factor analysis approaches, applications and recommendations for their most appropriate use [21, 22, 23, 24]. Thus, when researchers develop a new instrument certain order among participants' responses is one of the important issues to consider. Therefore, factor analysis is used for this purpose in the present study and it is one of the multivariate analysis techniques approved to be applied in social sciences.

The normal distribution fit of the data set was examined using the Shapiro-Wilk test before the explanatory factor analysis of the scale was conducted, which found that the normal distribution was consistent. The suitability of the data for factor analysis can be examined using the Kaiser-Diener-Olkin (KMO) coefficient and the Barlett sphericity test. The KMO coefficient provides information about whether the data matrix is suitable for factor analysis and whether the data structure is suitable for factoring. For factorability, it is expected that the KMO will be higher than .60. The Barlett test examines whether there is a relationship among variables on the basis of partial collaterals [25]. The KMO coefficient of the STBPM scale was 0.96 and the chi-square value of Bartlett's test of sphericity was found to be 14709,28. This meant that explanatory factor analysis would be appropriate for the STBPM scale.

FINDINGS

Validity and reliability analysis

The results of the explanatory factor analysis, which analyses basic components and varimax transformation, the variances explained by the factors were examined and it was decided that the scale had a one-factor structure larger than the eigen value 1. And the total variance was calculated as %80.19. It was determined that the factor loadings of the items in the scale changed between 0.75 and 0.94 and no item were removed from the scale [Table 1].

Table 1: Explanatory factor analysis results for STABM

Item	Factor loading
Solution for disputes' must provide benefit for both parties.	0,92
Peer mediation should be an alternative method for school discipline.	0,84
The origin of the dispute should be evaluated and positive response should be given.	0,92
Disputes' are transformed into creative opportunities.	0,75
Effective communication can be obtained by using appropriate words no matter what the personal character is.	0,91
Effective listening is associated with healthy communication.	0.88

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Instructions given at the beginning of the activity story effects focusing on the whole story.	0.87
Disputes' are minimized through empathy.	0.94
Approaches with tolerance reduce disputes'.	0.94
Usage of "I" statement is important while expressing feelings.	0.92
Anger control deficiency increases disputes.	0.92
There are applicable conflict resolution techniques to all disputes'.	0.88
Displayed attitudes towards the dispute are important	0.88
Body language is effective in resolving disputes	0.91
Active listening is important for effective communication.	0.90
Prejudices are effective in dispute resolution.	0.94
It is important to transform negative emotions into positive emotions.	0.88
The fundamental needs for each individual are different.	0.93
It is important to live in peaceful environments.	0.92
The habit of peer mediation application towards resolving disputes' continues within the family communication.	0.79
Peer mediation training evokes the reduction of violence in the society.	0.93
Peer mediation training will contribute to developing youth as responsible patriotic young individuals.	0.88
Peer mediation training develops progress in the society and contributes to social peace	0.88
Peer mediation reduces tensions faced with generation gap conflicts.	0.93

Reliability of the scale was tested by the internal consistency tests Cronbach alpha and split-half method. In addition, item-total score analysis based on correlation was also performed.

As a result of the analysis conducted by the researcher, the Spearman Brown coefficient was calculated as 0.98 and the Gutt man Split-Half coefficient as 0.98.

In addition to the split-half and Croanbach alpha tests, the item-total correlations were sufficient and no items were removed from the scale and the scale was found to be reliable. As for the Croanbach alpha test on the reliability of the general scale and its subscales, the coefficient of reliability of the scale Croanbach alpha was calculated as 0.99.

Table 2: Item-total correlations of the scale

Items	Items-Total Correlations
Solution for disputes' must provide benefit for both parties	0.91*
Peer mediation should be an alternative method for school discipline.	0.83*
The origin of the dispute should be evaluated and positive response should be given.	0.91*
Disputes' are transformed into creative opportunities.	0.73*
Effective communication can be obtained by using appropriate words no matter what the personal character is.	0.91*
Effective listening is associated with healthy communication.	0.87*
Instructions given at the beginning of the activity story effects focusing on the whole story.	0.86*
Disputes' are minimized through empathy.	0.93*
Approaches with tolerance reduce disputes.	0.94*
Usage of "I" statement is important while expressing feelings.	0.91*
Anger control deficiency increases disputes.	0.91*
There are applicable conflict resolution techniques to all disputes.	0.87*
Displayed attitudes towards the dispute are important.	0.87*
Body language is effective in resolving disputes.	0.90*
Active listening is important for effective communication.	0.89*
Prejudices are effective in dispute resolution.	0.94*
It is important to transform negative emotions into positive emotions.	0.86*
The fundamental needs for each individual are different.	0.92*

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It is important to live in peaceful environments.	0.91*
The habit of peer mediation application towards resolving disputes continues within the family communication	0.79*
Peer mediation training evokes the reduction of violence in the society.	0.93*
Peer mediation training will contribute to developing youth as responsible patriotic young individuals	0.88*
Peer mediation training develops progress in the society and contributes to social peace	0.88*
Peer mediation reduces tensions faced with generation gap conflicts	0.93*

p<0,05

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Body language is effective in resolving disputes.	0.90*
Active listening is important for effective communication.	0.89*
Prejudices are effective in dispute resolution.	0.94*
It is important to transform negative emotions into positive emotions.	0.86*
The fundamental needs for each individual are different.	0.92*
It is important to live in peaceful environments.	0.91*
The habit of peer mediation application towards resolving disputes continues within the family communication	0.79*
Peer mediation training evokes the reduction of violence in the society.	0.93*
Peer mediation training will contribute to developing youth as responsible patriotic young individuals	0.88*
Peer mediation training develops progress in the society and contributes to social peace	0.88*
Peer mediation reduces tensions faced with generation gap conflicts	0.93*

p<0,05

[Table 2] shows that the item-total correlation coefficients are between 0.73 and 0.94 and it is statistically significant (p <0,05). As a result of the split-half and Croanbach alpha tests, no item was removed from the developed scale as the item-total item correlations were sufficient and the scale was found to be reliable.

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CONCLUSION

Schools are places where teachers work for the academic, emotional and social skills development of their students. However, some national education policies concentrate more on the academic development than the emotional and social skill development. Peer mediation is alternative approach applied for solving disputes/conflicts in schools and empowers social development of students. Present study targeted to map features of teacher beliefs towards peer mediation aiming to construct and validate a new scale for measuring beliefs regarding peer mediation. Even though, teachers' professional development dominates the way they apply the necessary education contexts, their beliefs are also reflected in their classes. The study of Tobin and McRobbie [26], revealed that teachers' beliefs have the greatest impact on the operational curriculum (28). Some researchers underline that the reforms or new applications depend on teachers' beliefs and the result is either successful or unsuccessful [15, 17, 18, 20].

The results of the developed scales KMO coefficient was 0.96 and the chi-square value of Bartlett's test of sphericity was found to be 14709.28. Bartlett's Test of Sphericity and the Kaiser-Meyer-Olkin Test of Sampling Adequacy (KMO) are commonly used to provide more complex measures for assessing the strength of the relationships and suggesting factorability of the variables [27].This meant that explanatory factor analysis would be appropriate for the STBPM scale. Many researchers from different social science disciplines have debated that factor analysis approach, and application is appropriate to use in social sciences disciplines [21, 22, 23].

The results of the explanatory factor analysis were examined and it was decided that the scale had a one-factor structure larger than the eigen value 1. And the total variance was calculated as %80.19. It was determined that the factor loadings of the items in the scale changed between 0.75 and 0.94 and no items were removed from the scale and the scale consisted of 24 items. Item 8 "Disputes' are minimized through empathy" and item 9 "Approaches with tolerance reduce disputes" highest factor loadings as 0.94.and the lowest factor loading was item 4 "Disputes' are transformed into creative opportunities" with factor loading 0,75.

Reliability of the scale was tested and the Spearman Brown coefficient and was calculated as 0.98 and the Guttman Split- Half coefficient as 0.98. The item-total correlations were sufficient and no items were removed from the scale and the scale was found to be reliable. As for the Croanbach alpha test on the reliability of the general scale and its subscales, the coefficient of reliability of the scale Croanbach alpha was calculated as 0.99.

As for the item-total correlation coefficients resulted to be between 0.73 and 0.94 and indicated to be statistically significant ($p < 0{,}05$). According to the split-half and Croanbach alpha tests, no item was removed from the developed scale as the item-total item correlations were sufficient and the scale was found to be reliable.

The validity and reliability results of the scale regarding teachers' beliefs towards peer mediation" yielded satisfactory results, indicating that the scale is applicable in the field of peer mediation training.
It is recommended for future studies too b serve and evaluate teachers beliefs in their in classroom activities.

CONFLICT OF INTEREST
None

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ARTICLE

A CONTENT ANALYSIS ON BIBLIOTHERAPY STUDIES

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ABSTRACT

The purpose of this study is to conduct the content analysis in the field of psychology. The research was limited to 52 articles in the SCOPUS database. As a result of the analysis, it was determined that bibliotherapy studies were conducted in the field of psychology for clinical purposes between 2013 and 2016. In addition, it was determined that the highest number of adults were working among children, adolescents and adults. In the study, it was determined that bibliotherapy studies were studied experimentally in four quantitatively. As a result of the analysis, it was determined that bibliotherapy studies were performed mostly in the USA.

KEY WORDS
Bibliotherapy, Content analysis, Evaluation of

INTRODUCTION

When examining the historical development process, mental health professionals, nurses, educators and library workers have used effectively used bibliotherapy at different levels and for different purposes [1]

In 1916, Samuel Crothers used psychotherapy counselling books as a therapy tool, which defined the therapeutic use of books as bibliotherapy. The first approach that emphasized the healing qualities of books, which forms the basis of bibliotherapy studies, is summarized in a phrase inscribed on the entrance door of the ancient library in Thebes, Greece, 'a healing place for the soul' [2]

Bibliotherapy refers to the use of 'Literature that allows individuals to solve problems or organize a process or event that enables them to benefit from literary works when they know themselves better and understand them, and the problem of the individuals is the problem of the hero in the book' [3]. Another definition of bibliotherapy is that it is the 'method of treatment that is used to bring together the right book, that reveals the social emotional problems of the individuals, to handle the problems of adjustment to life and recognize the needs of the individual for the developmental periods in which the person is in' [4]. However, the term 'therapy' in this context does not indicate that bibliotherapy is a clinical practice.

Bibliotherapy is used not only as a clinical approach, but also as a developmental approach with the aim of meeting the needs of the individual [5]. The clinical use of bibliotherapy is conducted by psychologists who have been specifically trained in this area. Bibliotherapy is also used for developmental purposes by experts and trainers. The purpose of this approachis to enable individuals to prevent or cope with these problems more effectively by relating stories to the life of the individual during their normal development period. For example, a child who commences primary education could experience anxiety towards attending school and, in orderto address this situation, a story detailing how the child can cope with this situation could be read and used in the school. The developmental type of bibliotherapy is used in education. It can be said that bibliotherapy has been used effectively as an aid to the disintegration of problems that are specific to the developmental periods and these practices have contributed significantly to the development of children [4]. It is a relatively new approach to use this method in schools and integrate it with the course contents. It is also found that Bulut's [6] bibliotherapy method is being used by psychology consultants and teachers in schools [7] for those who are unable to cope with the fear of death Corr, [8], for panic attack treatment. Febbraro, [9] and for aggressive children [10].

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Analysis of the literature reveals that the clinical use of bibliotherapy is implemented in the case of serious developmental problems. In this context, advisors advise clients to read at home. Psychology counsellors use stories in psychology counselling relationship and conduct sessions based on these stories. It is therefore possible for the counselee to understand more about themselves through this process. Both the clinical and developmental approach to bibliotherapy are used in educational environments and more bibliotherapy studies are based on interpersonal interaction and communication. It is through this work that it is possible to transform an individual's growth process by utilizing the emphasized stories, thus revealing the healing conditions that can be beneficial [11]. The goal of bibliotherapy is to establish a strong interaction between the client and the book [12].

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Today, bibliotherapy can be used to help individuals achieve a sense of self-consciousness through the use of books, CDs and DVDs. In this way, a different communication process is being introduced between the individuals by contributing to the development of the individual by allowing them to understand their own personality. In terms of the definitions of bibliotherapy in the literature, it is evident that all of them emphasize that bibliotherapy is a helping approach with the aim of guiding individuals to recognize and solve their problems through the utilization of books [4].

Bibliotherapy applications can also be useful and effective means of communicating to children, adolescents and adults in order to help them recognize and meet the specific needs during their developmental period. Through bibliotherapy studies, the individual can reinterpret his/her life story, make

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changes to their lives, and understand more about themselves through every story they read. For these reasons, people should read more frequently and watch more informative CDs and DVDs. Furthermore, every person who wants to realise development and change can create his/her own story [4].

Bibliotherapy studies can help the individual to express his/her problems more effectively and can guide the individual to develop a positive self-concept, develop his/her ability to understand, as well as to interpret the people around him/her [13].

In the bibliotherapy approach, a book is chosen that reflects the problem that the individual is experiencing. In order for bibliotherapy education to be beneficial, the individual must be willing to read and also to do. The individual is expected to relate to a story about a problem similar to the one he/she is experiencing and the counsellor then observes the individual's reaction. There is a dynamic process between the book and the reader. Throughout this dynamic process, the aim is to induce curative and improvable effects. This relationship encourages the reader to face their emotional problems and they may undergo positive changes when the process occurs under the supervision of a psychological counsellor [4].

In this study, content analysis was performed based on bibliotherapy articles in the SCOPUS database. The aim of this study is to evaluate the scientific studies conducted in the field of psychology based on the bibliotherapy method. When the literature is examined, it is necessary to construct a content analysis in this field. Although there is a limited number of studies on bibliotherapy, this is not a new approach, but is gaining renewed popularity.

The following questions were asked to reach the objectives of the research:

- In which years were the bibliotherapy studies screened in the SCOPUS database distributed?
- How many authors have conducted bibliotherapy studies that have been included in the research?
- In which countries were the bibliotherapy studies included in this research conducted?
- What is the number of keywords used in the bibliotherapy studies that are being investigated?
- What is the model used in the bibliotherapy studies that are investigated?
- What study groups are used in the research?
- How many references are used in bibliotherapy studies surveyed?

MATERIALS AND METHODS

Research model

This research is a qualitative study. Content analysis was conducted to evaluate the data in the study. Content analysis can be described as a systematic recursive technique in which certain words of a text such as a book, a book chapter, a letter, historical documents, newspaper headlines and texts are summarized with smaller content categories using certain rules [14].

Sample of research

Purpose and similar sampling were used in the research. Purposive sampling methods have emerged within the tradition of qualitative research. Objective sampling provides significant benefits in making current generalizations to the environment by providing probability-based sampling representation for Patton, while objective sampling allows for in-depth study of situations that are thought to have rich knowledge. In this sense, purposeful sampling methods are useful in explaining and events in many cases. Analogous sampling is the opposite of maximum variation sampling. The purpose here is to define a small subset of samples with a small homogeneous sample [15]. In this case, the sample of the research is composed of 52 articles access from the SCOPUS database.

Collection of data

Data of this study were scanned in the SCOPUS database and were collected through document analysis. Document analysts, historians and archaeologists are moving from one culture to another, and this one of the most important methods that a culture or civilization uses when working on the features of the past. It tries to obtain a holistic picture of the related culture or civilization by associating the remains they have acquired with each other and within a certain environment. The ability to write was an important turning point in human history. Historians and archaeologists who use these sources of cultural traditions, experience and state politics have been passed on to future generations through written means and have reached us through the analysis of these written sources, revealing much of what we know about the past. Written materials and pictures in this sense are significantly valuable sources of information that present many things we know about the past [16].

While scanning the electronic database, the subject area was limited to psychology and the years 2012, 2013,2014, 2015 and 2016. When the content of the research was analyzed, the criteria that were taken into account in accordance with the sub-objectives of the research are listed below:

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- Publication year
- Number of authors
- The country were the studies were conducted
- The number of keywords used in the studies
- Models of the studies
- Working group of the research
- Number of sources used in the research

Analysis of data

The analysis of the research data was conducted using the Microsoft Excel program in order to generate the database. The predetermined criteria were recorded. In this study, descriptive analysis was conducted, documents were examined, the obtained data were recorded for each article, and tables were created by calculating percentage values and examining them in terms of certain variables. As a result of the scans conducted in the SCOPUS databases, a total of 52 studies published between 2012 and 2016 were found and these studies were analyzed.

RESEARCH FINDINGS AND CONCLUSIONS

In this section, the results of the analysis made in accordance with the purpose of the research are presented in tabular form according to the selected criteria.

Table 1: Distribution by Year

Years	Number	Percentage (%)
2012	7	13.46
2013	14	26.92
2014	9	17.3
2015	10	19.23
2016	12	23.07
Total	**52**	**100%**

As shown in [Table 1], the majority of studies on bibliotherapy were published in 2013 and 2016. The bibliotherapy technique, which has developed an important place in the field of psychology in recent years, is supported by the literature which is included in the scope of the study, and is used to support the treatment in diagnosed cases.

Table 2: Distribution by number of authors

Number of Authors	Number	Percentage (%)
One	8	15.38
Two	8	15.38
Three	8	15.38
Four	12	23.07
Five	8	15.38
Six and more	8	15.38
Total	52	100%

In terms of the number of researchers who conducted the research according to the data obtained, the highest number of articles were written by four authors, with a rate of 23.07%, as seen in [Table 2].Considering that the use of the bibliotherapy technique in an experimental study could cause difficulties in the studies conducted by a single investigator, it is observed that single-authored studies that are content analysis studies based on book poetry and writing that can used the bibliotherapy technique in the qualitative dimension.

Table 3: Distribution by keyword use

Keywords	Number	Percentage (%)
Three	7	13.46
Four	6	11.53
Five	23	44.23
Six and more	16	30.76
Total	52	100

It is evident that there are more than five key words were used in the majority of articles covered by the study. The term bibliotherapy was in the context of all fifty-two articles in the study. However, the bibliotherapy technique is often used with treatment purposes in cases where the diagnosis is made with treatment support purposes, and sometimes other key words are n used to describe these diagnoses, as seen in [Table 3].

Table 4: Distribution According to the Country where the Research was Conducted

Countries	Number	Percentage (%)
USA	25	46.15
London	9	17.3
Germany	5	9.61
Australia	4	7.69
Other (Cuba,Scotland,Canada,Russia,Finland,Norway,Italy, Holland, Philippine, Slovenia)	9	17.3
Total	52	100

As shown in [Table 4], the bibliotherapy technique has been used extensively in experimental studies in the USA. Specifically, more than a half of the studies were conducted in 2016.

Observation of the bibliotherapy technique in terms of experimental studies reveals that it has a positive effect in supporting the treatment and treatment process and this ranked highest in the distribution table according to the population included in the survey, which is dominated by US researchers, who also experiment with different methods and techniques and try non-drug psychological treatments.

Table 5: Distribution by working status

Working Status	Number	Percentage (%)
Children	5	9.61
Teens	13	25
Adults	34	65.38
Total	52	100

[Table 5] shows the Experimental studies have largely been conducted on adult patients in the field of bibliotherapy in psychology. The reasons for this is thought to be due to the difficulties in obtaining permission from parents to work with children and adolescents. The willingness of the participation of the individuals involved in the study group is crucial for the efficient execution of experimental work. It has been emphasized that, in the articles examined in the research, some studies reached by adults via radio and Internet and others were reached through psychological diagnosis and treatment centres.

Table 6: Distribution according to the model of the study

Model of the study	Number	Percentage (%)
Qualitative	16	30.76
Quantitative	34	65.38
Mixed	2	3.84
Total	52	100

As indicated in [Table 6], the majority of the studies used quantitative models. In experimental studies, control group pre-test-post-test designs were frequently used.

Table 7: Distribution by number of resources used

Number of used resources	Number	Percentage (%)
10-19	6	11.53
20-29	10	19.23
30-39	5	9.61
40-49	8	15.38
More than 50	23	44.23
Total	52	100

[Table 7] shows the distinctions according to the number of resources used by the articles covered by the research. In total, 44.23% of the articles used 50 or more resources, which ranked in first place in this list. The need to evaluate robust literature in the efficient realization of experimental work is emphasized in many articles. However, it is often observed that this ratio increases during interdisciplinary studies.

DISCUSSION, CONCLUSIONS AND SUGGESTIONS

As a result of the content analysis conducted on bibliotherapy studies, it was found that the bibliotherapy technique in psychology was predominantly used between 2013 and 2016. The increasing number of bibliotherapy studies in the area of psychology in recent years can be said be a result of the use of bibliotherapy techniques in solving the intense and complicated emotional problems associated with traumatic events that experienced by individuals.

It is seen it is more effective to have four authors when conducting experimental studies on the bibliotherapy technique. It may be more beneficial to work with multiple authors because of the preliminary test, which is generally required a longer period of experimental work. It can be seen that it is appropriate to work as a single author when the qualitative dimension is studied. In fact, the poetry of the books to be used in the bibliotherapy technique and analysis of the content by bringing the authors together can be conducted by a single author.

As a result of the research, it is seen that all 52 articles included in the scope of the study included the keyword bibliotherapy and the majority had at least five key words. It can be said that the cases where the bibliotherapy technique is recognized are used to support treatments. It was also revealed that the bibliotherapy technique is mainly performed experimentally in the USA. It is important to note that the technique of bibliotherapy in the United States has provided effective treatment for individuals through books without the need for medication. In a study conducted throughout the United States, in [17], Staker found that a large number of psychologists read self-help books. A total of 98% of the psychologists who participated in the survey stated that they would recommend these books to their client's, even if only rarely. Williams and Martinez [18] emphasized that the bibliotherapy method has become popular in the UK and Australia and is supported by the government and health sciences. Adams and Pitre [19] also reported that 68% of psychiatric specialists used bibliotherapy techniques in their counselling sessions. However, it is evident that there have been no studies conducted in Turkey on bibliotherapy. Moreover, it may now be necessary to use the bibliotherapy technique in order to address the increasing number of emotional problems that people experience in Turkey due to recent terrorist incidents.

In the research, it has been determined that the clinical use of bibliotherapyin the psychology field predominantly consists of experimental studies with adults. It can be said that adults have more psychological problems due to the characteristics of their living situations (marriage, work, children etc.) and they try to overcome their problems through thebibliotherapy technique. During adolescence, bibliotherapy is being used to find solutions to the problems related to families, school and friends and their general level confusion related to finding their identities. In a study on the use of bibliotherapy through read-aloud psychological counselling for adults in [20], it was reported that articles, brochures and book reading assignments were given to specific client or patient groups to change the negative attitudes of the individual. He also emphasized that the bibliotherapy technique has been successfully implemented in the treatment of many problems experienced by children, adolescents, adults and the elderly, and its effectiveness has been scientifically proven. Hayes' [21] study found that children and adolescents had prepared books that would increase their ability to cope with depression, anxiety, and mourning, and that the work in this regard was successful.

It was found that more studies used quantitative models. A mixture of qualitative and quantitative studies are less common. It can be said that, in experimental studies, the pre-test final design is frequently used. In the İlter's Master's thesis, the Effect of the Bibliotherapy Technique on the Perfectionism Level of Children [22], a pre-test post-test test control group experimental design was used and a 7-session bibliotherapy training program was emphasized by the researcher in the experimental group. It can be said that the treatments in which the bibliotherapy technique is used may be more experimental. In fact, psychology consultants are conducting bibliotherapy sessions in sessions using novels or narratives. Psychology consultants start their work by reading a summary of a story or an important section, stating that this should be worked on first. It can be said that experimental bibliotherapy applications may be more effective, because bibliotherapy is used as a treatment method by enabling the individual to relate to the protagonist in the story and the individual consequently gaining insight into their own life.

When the number of bibliographies sources used by the articles is examined, it is seen that in general 50 or more sources are used. It is emphasized that of the majority of research on bibliotherapy is performed experimentally in order to increase the effectiveness. The importance of conducted an in-depth literature reviewwhen conducting bibliotherapy studies is emphasised.

As a result of the content analysis conducted, the clinical use of the bibliotherapy studies in the field of psychology was emphasized. The following suggestions can be made to for researchers conducting studies in the field of psychology:

- It is also necessary to conduct studies for the developmental use of bibliotherapy studies in the Psychological counseling and guidance dimension in the field of psychology.
- Bibliotherapy studies are also included in the scope of preventive guidance services for the use of psychological counsellors in the personal development of adolescents. Conducting work in this direction will prevent serious developmental problems. Furthermore, there will be no need for diagnosis and treatment using bibliotherapy studies.

CONFLICT OF INTEREST

There is no conflict of interest.

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ARTICLE

THE ATTITUDE AND BELIEFS OF CANDIDATE TEACHERS CONCERNING STRATEGY-METHOD-TECHNIQUE AND ASSESSMENT-EVALUATION IN SCIENCE AND TECHNOLOGY COURSE

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ABSTRACT

The aim of this study is to investigate the attitudes and beliefs of teacher candidates concerning the instructional strategy-method-technique and assessment-evaluation components of Pedagogical Content Knowledge (PCK) regarding Science and Technology course. Teacher candidates studying in the Department of Science, School Teaching, and Gifted Teaching in Faculty of Education in the 2016-2017 academic year at TRNC participated the research. The study is progressed as exception case study as part of qualitative research. In order to collect the data, semi-structured interview technique and open-ended questions are used. Sixty teacher candidates responded to the open-ended questions and 20 of them participate to semi-structured interviews. The data of the research are subject to content analysis. As a result of the study, it is determined that teacher candidates have different beliefs and attitudes towards instructional strategy-method-technique and assessment-evaluation. It is established that the teacher candidates are confused about the instructional strategy-method and technique. It is also found that some of the teacher candidates have short and rote information about the instructional strategy-method-technique and assessment-evaluation; they are unable to give in-depth information and examples and have misconceptions.

KEY WORDS
Pedagogical Content Knowledge, Teacher Candidates, Strategy-method-technique and

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INTRODUCTION

The qualified people are needed for the advancement of societies while scientific information is constantly evolving, technological innovations are always developing, and science and technology are effective in every part of our lives. The training of the qualified people can be also provided by the qualified teachers. A qualified teacher should have the makings of content knowledge, subject content knowledge, vocational and personal qualifications and pedagogical knowledge [1, 2]. A teacher, who has the professional competence, should have the information about how and when to do learning, which strategy-method-techniques to use, and how to evaluate students when implementing training program for a defined group of students [3]. Among the personal qualifications expected to be a qualified teacher, the teaching to use in teaching depending on the beliefs and attitudes of the teacher with strategy-method-technique and measurement-evaluation can be mentioned. Each teacher has their own beliefs and attitudes. The beliefs and attitudes of the teacher affect the sufficiency of the teaching, the current strategy-method-technique and assessment-evaluation techniques, the participation of the student to learn and the students' understanding the teachings hence the efficiency and the permanence of the teaching process substantially [4, 5].

In 1987, Shulman [6] specifies the field, which is thought to be used during the education and the planning the teaching, as field information, understanding the students and pedagogical information. Shulman also mentions that besides teachers' field and vocational information, teachers should have pedagogical content knowledge, which is stated as using the field and pedagogic information together, in order to create active learning environment. Pedagogical content knowledge (PCK) contains the components such as subject field information in the process of transforming teaching into learning, teaching strategy-method-technique information and assessment-evaluation information and understanding students. The term PCK is firstly mentioned by Shulman [7] in 1986. According to Shulman, PCK is the information that distinguishes the biology teacher from biologist and it contains "demonstrations and formatting used to make the subject more understandable during teaching" [7]. Based on the studies of Shulman and Grossman, Magnusson, Krajcik and Borko [8] reveal that PCK is comprised of the some components in Science teaching. The studies about the pedagogical content knowledge are quite a lot in abroad countries. However the topics about the pedagogical content knowledge have recently begun to be discussed in our country.

The reason and importance of the study

It is expected that candidate teachers who graduate from teacher training programs would be equipped with sufficient information such as SFI, PI and PCK because teachers are dependent on the existence of certain standards in order to be qualified [9, 10, 11]. Features such as the professional and personal qualifications of the teachers can be mentioned as the expected characteristics of qualified teachers for an effective science teaching [12]. Even though, there are lots of studies about the teachers' pedagogical content knowledge within the scope of science and technology field in abroad, it is stated that there are quite a little studies in our country. It is seen that the studies intended to the pedagogical content knowledge in our country has increased but it is also seen that these studies are not enough. When these

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reasons are considered, it can be thought that this research would contribute to the future studies in regard to pedagogical content knowledge of teacher candidates in Science and Technology field.

The aim of the study

This study specifies the beliefs and attitudes of the

This study identifies beliefs and attitudes of the teacher candidates about instructional strategy-method-technique and assessment-evaluation information from PCK components depending on their own ideas on Science and Technology field. Within the scope of the purpose of the study, the following sub goals are determined.

The sub goals of the study

In order to achieve the objective of this study research, the following two sub goals are specified:

1.To identify the beliefs and attitudes of the teacher candidates related to instructional strategy-method and techniques in Science and Technology lecture,
2.To identify the beliefs and attitudes of the teacher candidates related to assessment and evaluation using in Science and Technology lecture.

Theoretical framework

Curriculum, instruction schedule and syllabus

The curriculum is the formation of the learning experiences through the activities within a specific plan in and outside school. How to be gained the requested behavioral change in the individual is included in the training program. For this reason, the quality of the education is depended to the used curriculum. There are four main goals in the curriculum. These goals are imported as following:

1."Goal" included the behaviors wanted to be gained,
2. "Content " included in the program to be applied for behaviors required to be learned,
3. "Learning-teaching process" included in the determination of the teaching strategies-methods and techniques applied for the behaviors desired to be learned,
4. "Assessment and evaluation" included in determining the degree of attainment of the behaviors desired to be learned.

The change on any one of these four goals of the program (goal, content, learning-teaching process and assessment-evaluation) affect the whole program.

The instruction schedule also includes the all activities in the specified plans inside and outside of the school for the learner. The syllabus is the all activity plans related to how to gain the target behaviors determined during the course.

Within the scope of the purpose of the research, the information about the instructional strategy-method-technique and assessment-evaluation partaking in the four main goals of the curriculum is given in following.

Strategy, method and techniques in teaching

The question “How should I teach?” includes the process such as strategy, method and techniques. The question “How should I teach?” is based on the instructional strategies, methods and techniques. The instruction strategy is a general approach that directs the determined method, technique and equipment, which provides to reach the goals of the lecture. The instruction strategies are the teaching strategies through the display, invention (exposure) and search-examination. The teaching method is the applied well-ordered way in order to reach the goals of the course. Teaching methods are the expression, problem solving, discussion, case study and exhibition-execution. Teaching technique is also defines as the way of the application of the teaching method. The teaching techniques are demonstration, brainstorming, question-answer, experiment, group works, observation, mind map, other discussion techniques (panel, conference, etc.), case study, role playing, station, group works, individual teaching techniques, psychomotor executions, simulation, reasoning techniques and analogy [13].

Assessment and evaluation in education

Assessment is defined as “observing a certain characteristic and expressing observation results with numbers or symbols” in the widest sense. Evaluation is defined as “work of reaching a value judgment as a result of comparison of measurement results with a criterion” [14]. The types of assessment and evaluation are divided into two as traditional assessment and evaluation techniques and supplementary assessment and evaluation techniques. The traditional assessment and evaluation techniques are written examinations, multiple-choice tests, oral exams, short answer questions, true-wrong questions and

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matching questions. On the other hand, supplementary assessment and evaluation techniques are portfolio project, performance assessment, grading keys, diagnostic tree, structured grid, word binding tests, problem solving, mind map, interview and student evaluations [15].

The beliefs and attitudes in education

Beliefs are generally psychological, including knowledge, thought and religion. In education, there are goals like upskilling and gaining knowledge to the individuals and making changes on the behaviors of the individuals in good manner. However, when the knowledge and skills that are tried to be gained are turned to beliefs, attitudes and behavior then it means that the goal is attained. Beliefs include the thoughts and information of the individuals about a state or fact. Mostly, beliefs become as the fundamental principles of the individuals. Individuals show their information, thoughts and beliefs about a fact or event by their attitudes and behaviors. Therefore there are beliefs that individuals have on the basis of their attitudes. Attitudes are special to the individual. Attitudes provide individuals' emotions, thoughts and behaviors to be coherent. There are lots of factors that affect the forming of the attitudes such as family, society, environmental factors, point of interest and mass communication. Attitudes are formed by three components as cognitive, emotional and behavioral. The cognitive component has good-bad, positive-negative evaluation about the subject. Emotional component contains attitudes like fear, anger, love, hatred. Behavioral component is like preliminary preparation for the object.

The components of pedagogical content knowledge in science education

Science curriculum mainly aims to raise individuals, who are based on the basic principles and methods of science are researchers, inquisitors, who know how to reach science, and who can use science and technology [16, 17]. The growth of these individuals is also provided by the strategy-method-technique and evaluation knowledge that the teachers use during the planning the education and training process. The pedagogical content knowledge in Science education are comprised of five components such as science teaching orientation, knowledge of science program, knowledge of students' understanding of science, knowledge of science teaching, knowledge of teaching strategies Magnusson et al. [8] mentions that the idea that the teacher related to science teaching about orientations towards science affects the decisions to be made in teaching. Science program information is approached as in two parts as "general and specific goals information" and "program information oriented to a specific field". Teacher should be able to achieve the general and specific goals that the field requires and know the science field well. A teacher should be aware of the understanding of science and the preliminary information that students have in order to teach any scientific knowledge, and they should also have awareness about the students' ideas oriented to this information. There are two titles related to the information of the education strategies: "knowledge of specific field strategies" and "knowledge of specific topic strategies". Specific field strategies information is more extensive than the specific topic strategies and it contains all strategies need to know about science field. In order to teach students concept and connections directed to a specific topic, teacher should benefit from different method and techniques such as demonstration, problem solving, simulations, researches and experiments during the exercises. The teacher should be very well aware of how and where assessment methods can be used in assessing science teaching. The teacher evaluates the learning of the students' content through the evaluation methods they have chosen during their education.

Related researches

Pedagogical content knowledge (PCK) is a new research topic in our country. For this reason, limited number of studies is run across. In this part, some of these studies are given:

When the studies related with PCK is examined, it is seen that there are studies that investigate PCK's of the teacher candidates and the components of PCK: topic field information, understanding student knowledge, instructional method-technique and assessment and evaluation information [18, 19, 20, 21, 22, 23, 24, 25]. It is emphasized in the study that the components of the pedagogical field information composed by understanding student information, instructional method-technique and assessment and evaluation information components show difference for each teacher candidate [18] and it is resulted that the theory and application information need development for the curriculum and education methods of Science and Technology lecture [19, 26]. Moreover, SFI is emphasized as the preliminary requirement for PCK [20] and it is determined that teacher candidates see themselves partially adequate in the subject field of knowledge (SFI) [24] and they do not have enough information to teach the subject [22]. It is also said that teacher candidates do not have difficulty to establish the mistakes of the students but they have difficulties with only verbal expressions [25]. While expressing that the field information have positive effect on PCK and education applivaations [21], it is mentioned that the field information of the teacher candidates is insuffient and there is no relationship between their field information and PCK components [23].

It is possible to come across a lot of studies about PCK, which are conducted abroad. In this part, some of these studies are given:

While the studies of PCK are examined, it is seen that studies examined PCK of the teachers and teacher candidates and the components of PCK, which are subject field information, learning difficulties,

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presentation information, the tendency towards science education, science program information, information required for students to understand science topics, assessment and education strategy are studied [27, 28, 29, 30, 31]. In this study, it is mentioned that the experience has an important role in the development of pedagogical content information. It is also found that PCK that teachers have is considerably low [29]. Furthermore, it is also resulted that teacher candidates have a number of difficulties on the connections of different concepts, misconceptions and inadequate information [31]. It is emphasized that the classroom activities are essential in terms of the development of pedagogical content information of teacher candidates [27]. Henze et al. [30] mentions that education methods information is developed in time but assessment information is not changed substantially. So, because of the fact that the teacher education creates a little part of the learning to teach process, it can be said that the development of PCK would be in restricted topics [28].

During analyzing the conducted studies, it is seen that there are a few studies about Science and Technology field in our country in respect to abroad countries. In this sense, the study discusses the attitudes and beliefs on the strategy-method-technique and assessment-evaluation situated in the components of PCK, which are used in science and technology lecture by teacher candidates.

MATERIALS AND METHODS

Research design

In the research, the qualitative research method is used in order to determine the teacher candidates' beliefs and attitudes towards instructional strategy-method-technique and assessment- evaluation, which are PCK components, used in Science and Technology lecture. Qualitative research is defined as the research where information gathering methods are such as observation, interview and document examination and where the process is followed by revealing perceptions and events in a natural and realistic way [32]. The research is continued as special case study within the scope of the qualitative research. With Special Case Study, a group of people, subjects, problems or programs can be closely examined [33].

Study group

60 teacher candidate in for 38 females and 22 male participate to the study for open-ended questions. 5 teacher candidate, 3 females and 2 males, from Science Teaching department; 36 teacher candidates, 26 females and 10 males, from Primary School Teaching department; and 19 teacher candidates, 9 females and 10 males, from Giftedness Teaching department participate to the study.

For the semi-structured interview, 20 teacher candidates, who are 16 females and 4 males, participate to the study. 5 teacher candidate, 3 females and 2 males, from Science Teaching department; 22 teacher candidates, 11 females and 11 males, from Primary School Teaching department; and 3 teacher candidates, 2 females and 1 male, from Giftedness Teaching department participate to the study.

The academic year of the students, who participate to the study, is different from each other. However, these students are the ones that take Science Teaching Lab. Practices I and Science Teaching Lab. Practices II course as common course in the same classroom environment. Moreover, it is observed that the teacher candidates take common "field information" courses (Mathematics, Biology, History, Chemistry, Turkish, Physics, and Science and Technology Lab. Practices) as common course in their period of study. Thereby, it is aimed to reach the information about the relationship between "field information" courses that teacher candidates take and PCK.

Data collection tools

In the study, open-ended questions and semi-structured interviews with more than one data collection tool are used. As proper to the special case study, open-ended questions are asked in the research. Open-ended questions allow the individual to write their own answers [34].

The most important convenience that the semi-structured interviewer presents to the researcher is to provide more systematic and comparable information on the basis of continuing the interview based on the pre-prepared interview protocol [32].

In open-ended and semi-structured interview questions, the teacher candidates are asked for which strategy-method-technique and assessment-evaluation techniques they would use in science and technology teaching and which strategy-method-technique and assessment-evaluation techniques they would use in science and technology teaching when they become teacher.

In semi-structured interviews, except for the two questions in Appendix-1, probing questions are asked in the direction of answers given by teacher candidates to the questions. Generally information and probing questions are mentioned as open-ended [34]. Some of the probing questions that are used in this study are: Do you mean student-centered education? Do you mean the teacher also affects the personality of the student? Do you mean you cannot just tell the subject? Are you saying that there would be chaos

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during the narration when there are more than one person in group work? Do you mean that the experiment would change according to the age group?

Data collection process

In the study, the open-ended questions related to the instructional strategy-method-technique and assessment-evaluation of PCK components are asked when the participants are ready after they done with their classroom exercises. Questions comprise of four itemed open-ended questions and it lasts for 30 minutes. Because of the missing participants, open-ended questions are applied again one week later in the same course after the students are done with their classroom exercises.

Furthermore, semi-structured interview questions comprise of four itemed open-ended questions and it lasts approximately 15-25 minutes. The interviews with teacher candidates are finished in 14 daily processes at the appointed time.

Analysis of data

During the data analysis process, first of all the sound recordings of the answers to the open-ended questions and the semi-structured interview audio recordings are converted to the written text on the computer. So, this allows the researcher to see the obtained data as a whole. The answers of the teacher candidates given for the intstructional strategy-method-technique and assessment-evaluation by semi-structured interview technique is accepted as raw data and they are grouped in these two contexts by the researcher and it is switched to the coding process. Within this period, the answers given to the research questions are grouped under the intstructional strategy-method-technique and assessment-evaluation titles, not as question-based. The reason for the need for such a process is that students have expressed their responses as complicated to the contexts. A table is constituted by the components determined within the research. Data are firstly organized as instructional strategy-method-technique and assessment-evaluation techniques used in science and technology course considering this table. Secondly, the instructional strategy-method-technique and assessment-evaluation techniques used in science and technology course are organized under the categories when they become teacher. Later on, the content analysis of these documents is done. The basic process done in content analysis is to combine similar data within the framework of the certain concepts and themes and to interpret them in a way that the reader can understand [32]. As a result of this, the instructional strategy-method-technique and assessment-evaluation techniques that teacher candidates especially dwell on are turned into tables. During the process of reporting, the obtained data are evaluated as a whole in order to reveal the perception and thoughts about the pedagogical content information of the candidate teachers. The similarities and differences of the results are identified. Interpretation of the findings by establishing a causal relationship between findings is provided by the researcher's comments.

The role of the researcher

The time of the application of the open-ended questions are made with the classroom unattended observation researcher, the consultant in the participating observation process, and the classroom teacher. Also, constant interaction with teacher candidates is made about the tasks that would be done during the research and the planning is done as not to affect the processing of science and technology course. Mutual expectations are expressed explicitly and in this direction the regulations are done. Then a common time is determined with the teacher of the class and candidate teachers and open-ended questions are delivered to the students at the time of the course.
After the researcher delivers the open-ended questions to the students, he takes the permission from the classroom teacher to make 'observations' in the science and technology course for a complete understanding of the expressions and thoughts of the students while they respond the questions. The observation is a view and listening to specific targets in order to gather information about a specific person, place, event, object, condition and conditional information [35]. Later on, the researcher participates to the course. The classroom teacher teaches the lesson as ‘participant observer’. The participant observer behaves like one of them; ideally, it is also unknown that he is an observer [35]. On the other hand, the researcher follows the course as ‘unattended observer’ during the course. The unattended observer observes the group or person objectively from the outside by staying out of the observed group or event [36].

For the semi-structured interview technique, after the content analysis of the open-ended question application are done, in the process of unattended observation, in which 20 teacher candidates are found to spend time and effort on their own rich thoughts in open-ended questions, attract the attention of the advisor and course teacher in the participatory observation process. These teacher candidates are asked to participate in the research to include more in-depth thinking. By appointment with each of the teacher candidates, a common time for the semi-structured interview is determined.

Validity and reliability

The interview forms used oriented to pedagogical content information are examined during the constitution of the open-ended and semi-structured interview questions [20, 31, 37] and the studies conducted on Pedagogical Content Information are benefited from [38, 39]. The questions that could reveal the opinions of the teacher candidates on the PCK components are identified. During determining the questions, it is paid attention to be clear and understandable, not to be leading, to prepare alternative questions, and to the logical arrangement of the questions for each component. After preparing the open-ended and semi-structured interview questions, since similar studies in the literature on PCK have been used, it has been determined that the research is sufficient to find the answer to the question. For the coding and categorization process; after the answers of 5 randomly selected students are analyzed by the consultant and the researcher separately and after the codes and possible categories are assigned, they debate together and continue discussions until they both have same idea. In pursuit of the determined codes and categories, the researcher complete the coding and categorization process single-handed thereby solving the problem by consulting the consultant when there is a problem.

RESULTS

Beliefs and attitudes emerge as a result of content analysis of perceptions and thoughts on instructional strategy-method-techniques and assessment-evaluation techniques that the teacher candidates and when they become teachers would use in science and technology lecture. Hence, results are organized as two sub parts that contain perceptions and thoughts about the instructional strategy-method-techniques and assessment-evaluation techniques, which they would use in science and technology course when they become teachers. The sub goals of this study are to determine the beliefs and attitudes of the teacher candidates towards the instructional strategy-method-techniques and assessment-evaluation information of PCK components depending on their specific thoughts.

Innovative strategy-method and techniques: Differently from the information in the literature, teacher candidates mention the instructional strategy-method and techniques that they would usein science and technology lecture when they become teachers. These strategy-method and techniques are stated as "Innovative strategy-method and techniques" and they are titles as course trip, materials and technological instruments, teacher-students communication, curriculum-syllabus, student-centered education, presentations (Individual, Group), portfolio and parents.

Innovative assessment and evaluation: Teacher candidates talk about the assessment and evaluation techniques used in science and technology lecture when they become teacher differently from the information that is found in literature. These techniques are mentioned as 'Innovative assessment and evaluation techniques' and seen as a contribution to research. These techniques are individual differences, assessment tests, experiment, activities-exercises, feedback, responsibility and classroom behavior.

In this context, in open-ended questions and semi-structured interview teacher candidates are asked the question 'Which are the strategy-method-techniques and assessment-evaluation techniques used in science and technology course?' and 'Which strategy-method-techniques and assessment-evaluation techniques would you use when you become a teacher?'. Later on, the strategy-method-techniques and assessment-evaluation techniques that are used in science and technology course considered as appropriate by the teacher candidates are collected un [Table 1].

The following open-ended questions and semi-structured interview findings provide general descriptions of teaching strategy-method-technique and assessment-assessment that most of the prospective teachers have concentrated on are given.

The belief and attitudes of teacher candidates on instructional strategy, method, and techniques

In this study, the beliefs and attitudes of teacher candidates towards instructional strategy, method and technology that would use in science and technology course and when they become teacher are collected with the open-ended questions and semi-structured interview with their unique thoughts regardless of the theoretical and conceptual knowledge of the candidate teachers.

The beliefs of candidate teachers on instructional strategy, method and techniques

The beliefs of the candidate teachers on instructional strategy, method and techniques used in science and technology course when they become teacher are collected under three sub-titles under Teaching Strategies, five sub-titles under Teaching Methods, five sub-titles under Teaching Techniques and they are collected under nine sub-titles under Innovative strategy-method-technique title. It is collected under twenty two titles in total.

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Table 1: Beliefs and Attitudes Obtained with Open-Ended Questions and Semi-Structured Interview – Strategy-Method-Technique and Assessment and Evaluation in Education

INSTRUCTIONAL STRATEGY-METHOD-TECHNIQUE	ASSESSMENT AND EVALUATION
1.Teaching Strategies(Approaches) 1.1.Teaching strategy by presentation 1.2. Teaching strategy by exposure 1.3. Teaching strategy by research-analysing 2.Teaching Methods 2.1.Discourse 2.2.Demonstration 2.3.Project 2.4.Problem Solving 2.5.Discussion 3.Teaching Techniques 3.1.Brain Storming 3.2.Experiment 3.3.Observation 3.4.Role Playing 3.5.Question-Answer 4. Innovative Teaching Strategy-Method-Technique 4.1.Course Trips 4.2. Materials and Technological instruments 4.3. Teacher-Student Communication 4.4.Curriculum-Syllabus 4.5.Student-Centered Education 4.6.Teacher-Centered Education 4.7.Presentations 4.7.1.Individual Presentations 4.7.2.Group Presentations 4.8.Portfolio 4.9. Parents	1.Traditional Assessment and Evaluation 1.1. General Information on Traditional Assessment and Evaluation 1.2.Gap-filling and Completion 1.3.Multiple Choice Exams 1.4.Verbal Exams 1.5.Written Exams 2. Supplementary Assessment and Evaluation 2.1. Homeworks 2.2.Performance Project 2.3.Posters 2.4.Project Papers 2.5.General Information on Supplementary Assessment and Evaluation 2.6. Presentations 2.6.1.Individual Presentations 2.6.2.Group Presentations 2.7.Portfolio 3.Innovative Assessment and Evaluation 3.1.Individual Differences 3.2.Assessment Tests 3.3.Experiment 3.4.Feedback 3.5.Activities-Exercises 3.6.Classroom Behaviors 3.7.Responsibilities

Beliefs related to teaching strategies

The beliefs of the candidate teachers related to teaching strategies used in science and technology course when they become teacher are collected under Teaching Strategies as three sub-titles: teaching strategies through Presentation, Exposure (discovery), Research-Analyze. While most of the teacher candidates accentuate on teaching strategies through presentation in open-ended questions, they dwell on teaching strategies through research-analyze in semi-structured interview. The general expressions of the teacher candidates on teaching strategies through presentation and research-analyze are given the following.
When the beliefs of teacher candidates on teaching strategies through presentation by open-ended questions are looked at:

It is an ideal strategy during the teaching facts and generalizations in science. The teacher lectures as the first strategy. Question-answer technique is used. Teaching with presentation is the best way of teaching. In teaching with presentation strategy, there is teaching by showing. It appeals to students' sense of sight and hearing. So, this leaves better impressions on the student.

When the beliefs of teacher candidates on teaching strategies through research-analyze by semi-structured interview are looked at:

First of all, the information about the experiment to be done should be obtained. How to do experiment? How to research? It should be learned. The experiment to be done should be tried at home several times in order not to aggrieve in front of students in the classroom environment, to be able to complete the experiment fully in class. The reports about the experiments should be prepared in order to determine the phases of the experiment, the aim of the experiment, which instruments should be used in it.

Beliefs on teaching methods

The beliefs on teaching methods of the teacher candidates used in science and technology course when they become teachers are collected under Teaching Methods title as five sub-titles: Discourse, Demonstration, Project, Problem Solving, and Discussion Method. Teacher candidates dwell on Demonstration method during the open-ended questions and semi-structured interview. The general statements of the teacher candidates related to Demonstration method are given in the following:

Doing-experiencing teaching activites take place during teaching. Students learn better by doing and experiencing. The interest of the students in the course increases. The students learn by experimenting

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and acquiring more efficient information. The information is outlasted more in mind by the demonstration method.

Moreover, in this method the dominance of teachers is drawn attention:

The exercises of the course should be tought and done by the teacher firstly. Later on, the teachers' exercises should be done with the students. In the very last, the students should do exercises by themselvesand they should ask questions to the teacher by creating their own questions.

Beliefs on teaching techniques

The beliefs on teaching methods of the teacher candidates used in science and technology course when they become teachers are collected under Teaching Methods as five sub-titles:

Brain Storming, Experiment, Observation, Role Playing and Question-Answer. Most of the teacher candidates dwell on experiment technique in open-ended questions and semi-structured interview. The candidate teachers' general statements related to Experiment technique is given in the following.

The best way of learning is to learn by working on the experiment. Students should hypothesize in the experiments. Teacher should ask questions constantly during the experiment in order to make students active in the course. In the experiments, it is necessary that the test materials are taught to the students and that the students should have full knowledge about the materials during the experiments. Experiments appeal to five senses. There is teacher-students communication in the experiments. If the experiments are not done in laboratory environment then it would not be efficient and permanent.

Also, the teacher candidates express their information about the experiment process:

First of all, the experiment materials are introduced in the experiments. Hypothesis should be established to the students constantly. The name of the experiment is asked to the student. The result is not said. The result should be evaluated by the student. Experiment method is definitely an effective and permanent technique.

Beliefs on innovative instructional strategy-method and techniques

The beliefs on instructional strategy-method and techniques of the teacher candidates used in science and technology course when they become teachers are collected under Innovative Instructional strategy-method and techniques title in nine sub-titles: Course Trip, Materials and Technological Instruments, Teacher-Student Communication, Curriculum-Syllabus, Student-Centered Education, Teacher-Centered Education, Presentations (Individual, Group), Portfolio and Parents. While teacher candidates dwell on Presentations (individual, group) in open-ended questions, they dwell on teacher-students communication in semi-structured interview. The general statements of the candidate teachers on presentations (individual, group) and student-teacher communication are given in the following. Presentations are expressed as two types by the teacher candidates. These are individual and group presentations.

While it is looked at the beliefs of the teacher candidates on individual presentations with open-ended questions:

The students reach the information by using presentation method. Student has all information that should be learned by the individual presentations. The lecture would be more productive during the individual presentations. It provides to increase their confidence. It helps students to behave freely and confident in the society. During the preparation process of the experiment, students collect information by themselves. With individual presentations, students connect the lecture with the every aspect of their life. Presentation provides experiences to the student. Student would understand the subject with the presentations. Student comprehends the subject more.

When it is looked at the beliefs of the teacher candidates on group presentations in open-ended questions:

Group presentations provide students to reach the information more quickly. The group presentations make students more active in the lecture. Student learns the subject better because of being active in class and the learning is made more permanent. Student's consciousness of responsibility is developed. The information shareness between the students is provided by the group presentations. The group presentations are helpful in terms of cooperation and solidarity. Group studies can provide better quality and different experiments.

When the beliefs of the teacher candidates on student-teacher communication in the semi-structured interview are looked at:

If the teacher is authoritative then student would not want to come to class. Student would not understand the lecture. Prejudice occurs. For this reason, student should not have fear. Student should be comfortable

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and should tell his/her opinions even it is wrong. Student should be active. Teacher should treat all students equally. Students who understand the lesson only should not be cared.

Attitudes towards instructional strategy method and techniques

The attitudes of the candidate teachers towards instructional strategy, method and techniques used in science and technology lecture when they become teachers are collected under two titles as Positive Attitudes and Negative Attitudes.

Positive attitudes of teacher candidates towards instructional strategy method and techniques

The positive attitudes of the candidate teachers towards instructional strategy, method and techniques used in science and technology lecture when they become teachers are collected under Teaching Strategies in three sub-titles: Presentation, Exposure (discovery), and Research-Analyze. It is also collected under Teaching Methods in five sub-titles: Discourse, Demonstration, Project, Problem Solving, and Discussion Method. Also, it is collected under teaching techniques in five sub-titles: Brain Storming, Experiment, Observation, Role Playing and Question-Answer. Moreover, it is collected under Innovative instructional strategy-method and techniques title in nine sub-titles: Course Trip, Materials and Technological Instruments, Teacher-Student Communication, Curriculum-Syllabus, Student-Centered Education, Teacher-Centered Education, Presentations (Individual, Group), Portfolio and Parents.

Negative attitudes of teacher candidates towards instructional strategy method and techniques

The negative attitudes of the candidate teachers towards instructional strategy, method and techniques used in science and technology lecture when they become teachers are collected under teaching technique in one sub-title: Experiment technique. It is also collected under innovative instructional strategy-method and techniques title in three sub-titles as teacher-centered education, teacher-student communication and parents. When the negative attitudes of the teacher candidates towards experiment technique in open-ended questions are looked at:

The learning would not be efficient and permanent; if the experiments are not done in laboratory environment (Science Technology course is meant).

When the negative attitudes of the teacher candidates towards teacher-centered education in semi-structured interview are looked at:

Student would not be active in teacher-centered education. Teacher only lectures. Only teacher discuss the subject. Student only listens.

When the negative attitudes of the teacher candidates towards teacher-student communication in semi-structured interview are looked at:

If the teacher is authoritative then student would not want to come to class. They would not understand the lecture, would have prejudice. So, students should not have fear about the teacher and course.
When the negative attitudes of the teacher candidates towards the beliefs in semi-structured interview are looked at:

If the parent cannot make their child to study at home and is not interested about it, then the child would not move across.

The Belief and Attitudes of Candidate Teachers towards Assessment and Evaluation
The belief and attitudes of the candidate teachers towards assessment and evaluation techniques used in science and technology lecture when they become teachers in open-ended questions and semi-structured interview are collected by their own thoughts regardless of their theoretical and conceptual information.

The beliefs on assessment and evaluation techniques

The beliefs of the candidate teachers on assessment and evaluation techniques used in science and technology lecture when they become teachers are collected under traditional assessment and evaluation title in five sub-titles; collected under supplementary assessment and evaluation title in seven sub-titles and collected under innovative assessment and evaluation title in seven sub-titles. There are seventeen sub-titles in total.

The beliefs on traditional assessment and evaluation techniques

The beliefs of the candidate teachers on traditional assessment and evaluation techniques used in science and technology lecture when they become teachers are collected under traditional assessment and evaluation techniques title in five sub-titles: General Information on Traditional Assessment and

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Evaluation, Gap-filling and Completion, Multiple Choice Exams, Verbal Exams, and Written Exams. While most of the teacher candidates dwell on written exams in open-ended questions, they dwell on verbal exams in semi-structured interview. The general statements of the teacher candidates related to written and verbal exams are given as following. When the beliefs of the teacher candidates on assessment and evaluation of written exams with open-ended questions are looked at:

The written exams are done to understand if the student understands the subject. Written exams are done for students to submit their information to the paper. The assessment and evaluation might be inadequate because of the excitement of the students. Also, the assessment and the evaluation might be inadequate because of the fact that the students might be concerned about the exam and they might deviate on the information. No assessment should be tied to a single test case.

When the beliefs of the teacher candidates on assessment and evaluation of verbal exams with semi-structured interview are looked at:

If there are no exams, students would not study. Verbal exams should be done. Verbal exams should be done about the subjects that the students have to learn about, which is important. For example, between the two tests, verbal exams must be made absolutely.

The beliefs on supplementary assessment and evaluation techniques

The beliefs of the candidate teachers on supplementary assessment and evaluation techniques used in science and technology lecture when they become teachers are collected under supplmentary assessment and evaluation techniques title in seven sub-titles: Course Trip, Materials and Technological Instruments, Teacher-Student Communication, Curriculum-Syllabus, Student-Centered Education, Teacher-Centered Education, Presentations (Individual, Group), Portfolio and Parents. While in open-ended questions, most of the candidate teachers dwell on project home works, in semi-structured interview they dwell on presentations (individual, group). The general expressions of the teacher candidates on project home works and presentations (individual, group) are given as following.

When the beliefs of the teacher candidates on assessment and evaluation of verbal exams with open-ended questions are looked at:

It is used by students to research, learn knowledge, skills, abilities and interests. Students embody the thoughts in their minds both in writing and in their imagination. Students should embody what they think by combining their dreams with both writings and pictures. Students apprehend the subject better. It is more permanent because it is oriented towards application and research. Presentations were expressed by teacher candidates as two types. These are individual presentations and group presentations.

When the beliefs of the teacher candidates on assessment and evaluation of individual presentations with semi-structured interview are looked at:
In individual presentations, students are observed if they can develop their abilities. Can they do experiments? Can they hypothesize? Can they describe the lecture effectively? Does the class of students understand? Do they ask questions? It is assessed by the prepared reports after the experiment. In this manner, they gain self-confidence and this works for them.

When the beliefs of the teacher candidates on assessment and evaluation of group presentations with semi-structured interview are looked at:

Students should be assessed individually, not as group in group presentations because one of them might be pushful and others might fall behind. The teacher should assess all by their individual being active situation. Their responsibilities should be assessed. In group works, some of them do and some not but all of them should do something for the group work. So, the ones that make something should be separated from others, who do not make anything.

The beliefs on innovative assessment and evaluation techniques

The beliefs of the candidate teachers on innovative assessment and evaluation techniques used in science and technology lecture when they become teachers are collected under innovative assessment and evaluation techniques title in seven sub-titles: Individual Differences, Assessment Tests, Experiment, Feedback, Activities-Exercises, Classroom Behaviors and Responsibilities. Most of the teacher candidates dwell on Experiment in open-ended questions and semi-structured interview. The general statements related to experiment are given following. At the end of the experiment, data analysis technique is used. The results related to quantitative data at the end of the experiment. The cause and effect relationship should be made after the experiment.
Teacher candidates also express their information about to their experiment process.

Are the experiment presentations done as they can understand? If there are any harmful instruments then how are they used? How is the form of expression? Do the students get attention? Can the class be managed? And the most importantly, can the students learn anything? Teacher should assess if they understand the experiments or not. If there are students that cannot understand the experiment then it

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should be repeated. Teacher notes the positive and negative sides of the experiment with the written notes as a result of the experiment presentations. The reports related to the experiments should be prepared (Science Technology course is meant).

The attitudes of teacher candidates on assessment and evaluation techniques

The attitudes of the candidate teachers based on the beliefs on assessment and evaluation techniques used in science and technology lecture when they become teachers are collected under two subtitles: Positive attitudes and negative attitudes.

The positive attitudes of teacher candidates on assessment and evaluation techniques

The positive attitudes based on the beliefs of the candidate teachers on assessment and evaluation techniques used in science and technology lecture when they become teachers are collected under Traditional Assessment and Evaluation title in five sub-title: General Information on Traditional Assessment and Evaluation, Gap-filling and Completion, Multiple Choice Exams, Verbal Exams, and Written Exams. It is also collected under Supplementary Assessment and Evaluation title in seven sub-titles: Home works, Performance home works, posters, project home works, the general information on supplementary assessment and evaluation, presentations (individual, group) and portfolio. Moreover, it is also collected under innovative assessment and evaluation title in seven subtitles: individual differences, experiment, evaluation exams, experiment, activities-exercises, feedback, responsibility and behaviors in class.

The negative attitudes of teacher candidates on assessment and evaluation techniques

The negative attitudes based on the beliefs of the candidate teachers on assessment and evaluation techniques used in science and technology lecture when they become teachers are collected under traditional assessment and evaluation in four subtitles: general information on traditional assessment and evaluation, gap-filling and completion, written and verbal exams. It is also collected under innovative assessment and evaluation title in one title as Experiment. When the negative attitudes based on the beliefs of the teacher candidates on traditional assessment and evaluation of general information with open-ended questions are looked at:

The traditional assessment and evaluation gives inadequate information about the development process of the student.

When the negative attitudes based on the beliefs of the teacher candidates on gap filling and completion questions with open-ended questions are looked at:

There would be no good brainstorming because of writing first thing come to mind to the gaps.
When the negative attitudes based on the beliefs of the teacher candidates on verbal exams with semi-structured interview are looked at:

Students would not study, if there are no verbal exams.

When the negative attitudes based on the beliefs of the teacher candidates on written exams with open-ended questions are looked at:

The interest and information of the student on the course would be less for written exams.

When the negative attitudes based on the beliefs of the teacher candidates on experiment with open-ended questions are looked at:

If the experiment is unsuccessful then this can mean that student has not worked on the experiment (the course Science and Technology is meant). If the experiment is unsuccessful then the student get bad grade.

CONCLUSION AND DISCUSSION

When the beliefs and attitudes of the teacher candidates on strategy-method and techniques are looked at, teacher candidates talk over about presentation, discovery and research-analyze as the teaching strategies. While most of the teacher candidates dwell o presentation as teaching strategy in open-ended questions, it is dwelled on the research-analyze as teaching strategy in semi-structured interview. When the beliefs of the teacher candidates on presentation as teaching strategy in open-ended questions, it is expressed that teaching with presentation is the best way of the education. When the beliefs of the teacher candidates on research-analyze as teaching strategy in semi-structured interview, they say that there is an ideal strategy that would be used in experiments. When the beliefs of the teacher candidates on teaching strategy in semi-structured interview and open-ended questions, they have positive attitudes towards teaching strategies such as presentation, discovery and research-analyze. Teacher candidates mention teaching methods as demonstration, show-make, problem solving, project and discussion methods; they do not mention just case method. In open-ended questions and semi-structured interview, most of the teacher candidates dwell on showing and making method. In open-ended questions, teacher candidates express that do-experience teaching activities take place in teaching for make-do method. On the other hand, in semi-structured interview, they mention that activities about the topic should be taught and done by the teacher firstly related to show-make method. Differently from the semi-structured interview, teacher candidates speak of problem solving method in open-ended questions. When the data from open-ended questions and semi-structured interview related to the teacher candidates' teaching methods are analyzed, it is determined that they have positive attitudes based on their beliefs towards exposition, demonstration, project, problem solving and discussion methods.

Teacher candidates talk about brainstorming, experiment, observation, role playing and question-answer techniques as teaching techniques but they do not talk about mind map, other discussion techniques (panel, conference, etc.), case study analysis, station, individual teaching techniques, psychomotor applications, simulation, reasoning techniques and analog techniques. Teacher candidates mostly talk about the experiment technique in open-ended questions and semi-structured interview. When the beliefs of the teacher candidates related to experiment in open-ended questions and semi-structured interview are looked at, it is seen that the best wat of teaching is learning by working on the experiment. Definitely, experiment is an effective and permanent technique. As the difference between the data obtained from the open-ended questions and semi-structured interview, while the brain storming technique is talked about in open-ended question, observation and role playing techniques are expressed in semi-structured interview. When the data related to the teaching techniques of the teacher candidates in open-ended questions and semi-structured interview are investigated, it is determined that they have positive attitudes towards brain storming, observation, question-answer and role playing techniques. Moreover, it is found out that teacher candidates have both positive and negative attitudes towards experiment technique.

Teacher candidates mention course trips, materials and technological instruments, student-teacher communication, curriculum-syllabus, student-centered education, teacher-centered education, presentations (individual, group), portfolio and parents as innovative instructional strategy-method and techniques. While most of the teacher candidates dwell on presentations (individual, group) in open-ended questions, they dwell on teacher-student communication in semi-structured interview. When the beliefs of the teacher candidates on individual and group presentations in open-ended questions are looked at, with presentations students own every information they should learn. Student reaches information more quickly. Moreover, when the beliefs of the teacher candidates on student-teacher communication in semi-structured interview are looked at, if the teacher is authoritative then student would escape from the lecure. Teacher should behave equally to the students. They should not interest with the students, who understand the course. As the differences between the data obtained from the open-ended questions and semi-structured interview; while course trips and portfolio is mentioned in open-ended questions, they mention parents in semi-structured interview. When the data obtained from open-ended questions and semi-structured interview related to innovative instructional strategy-method and techniques are looked at, it is determined that teacher candidates have positive attitudes towards course trips, portfolio, curriculum-syllabus, materials and technological instruments, student-centered education, presentations (individual, group). Moreover, teacher candidates have both positive and negative attitudes towards teacher-centered education, teacher-student communication and parents.

Teacher candidates talk about student-centered education way in open-ended questions and semi-structured interview; however, they cannot give any detailed information about student-centered education and other strategy-techniques (e.g. teaching with discovery) and they cannot also give special examples on the topic related to science and technology teaching. Canbazoğlu [20] also states similarly to these statements as mentioning the names of strategies and techniqeus (drama, play, mind map, etc.) used in science and technology teaching, but it is determined that they cannot mention how these techniques are applied in adequate way and there are confusions about the concepts.

In open-ended questions and semi-structured interview, even though teacher candidates talk about a classroom environment described as the contructivist approach on science lecture, it is determined that teacher candidates' knowledge about the strategy-method and techniques are short and based on memorization. The contructivist approach provides important information in terms of effective education [40].

When the beliefs and attitudes of teacher candidates on assessment and evaluation techniques are looked at, they mention general information of traditional assessment and evaluation, gap-filling and completion, multiple choice tests, verbal and written exams as traditional assessment and evaluation techniques. While most of the teacher candidates dwell on written exams in open-ended questios, they dwell on verbal exams in semi-structured interview. When the beliefs of the teacher candidates on assessment and evaluation with written exams in open-ended questions are looked at, the assessment and evaluation might be inadequate because students may be anxious about their knowledge during written exams. No assessment should be tied to a single test case. When the beliefs of the teacher candidates on assessment and evaluation with verbal exams in semi-structured interview are looked at, it is resulted that verbal exams should be done on the important topics that students have to learn. Differently from the semi-structured interview, teacher candidates mention about the general information related to traditional assessment and evaluation in open-ended questions and when the data from semi-structured interview are investigated, it is determined that they have positive attitudes towards multiple choice tests beliefs. Furthermore, it is resulted that they have both positive and negative attitudes towards

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the beliefs related to written and verbal exams, gap filling and completion, general information of traditional assessment and evaluation.

Teacher candidates mention home works, performance home works, posters, project home works, the general information of supplementary assessment and evaluation, presentations (individual, group) and portfolio as the supplementary assessment and evaluation techniques. While most of the teacher candidates dwell on project home works in open-ended questions, in semi-structured interview they dwell o presentations (individual, group). When the assessment and evaluation beliefs of the teacher candidates on project home works are looked at, students should embody what they think by combining their dreams with both writings and pictures. It is more permanent because of being directed to the application and research. Students comprehend the topic better. When the assessment and evaluation beliefs of the teacher candidates on individual and group presentation in semi-structured interview are looked at, students gain more self-confidence. It is more useful for the students. Teacher assesses individually by their being active situation. While teacher candidates talk about the general information of supplementary assessment and evaluation, performance home works, portfolio and posters in open-ended questions, they talk about the group presentations and home works in semi-structured interview as the differences between the data obtained from open-ended questions and semi-structured interview. When the data from open-ended questions and semi-structured interview related to the supplementary assessment and evaluation are investigated, it is determined that they have positive attitudes towards the beliefs on home works, performance home works, posters, project home works, general information of supplementary assessment and evaluation, presentation (individual, group) and portfolio.

Teacher candidates do not talk about the grading keys, diagnostic tree, structured grid, word association tests, problem solving, mind map, interview, student assessment used frequently in the syllabus. Same as these statements, Canbazoğlu [20] results that science and technology teacher candidates cannot state about the supplementary assessment and evaluation techniques and they cannot explain the features of it.

Teacher candidates talk about the individual differences, assessment tests, experiment, activities-exercises, feedback, responsibility and behaviors in classroom as the innovative assessment and evaluation techniques. Most of the teacher candidates dwell on the experiment in open-ended questions and semi-structured interview. When the assessment and evaluation beliefs of the teacher candidates on the experiment are looked at, teachers should assess the student, who does the experiment, by the understanding situations of all students. It should be repeated if the students do not understand the experiment. As the differences between the data obtained from the open-ended questions and semi-structured interview, while they talk about individual differences, assessment tests and responsibility in open-ended questions, they also talk about the activities and exercises in semi-structured interview. When the data related to supplementary assessment and evaluation of the teacher candidates in open-ended questions and semi-structured interview are investigated, it is determined that they have positive attitudes towards the beliefs on individual differences, assessment tests, activities-exercises, feedback, responsibility and behaviors in classroom. Moreover, it is resulted that they have both positive and negative attitudes towards experiment belief.

As a result of the analysis on the open-ended questions and semi-structured interview, in general teacher should know which teaching method, technique assessments should be used for the student. They state that the individual differences of the students should be taken into consideration for each student by a strategy-method-technique and assessment-evaluation and teacher should use these ways. They also mention that teacher should treat equally and fair to the students during teaching the lesson and they should communicate with all students, not just the students, who understand the lesson. While the teacher teaches the lesson, they should take care of the students, who do not understand the topic, one-to-one and each student in the class should be bring to equal levels. If there is a change on the behavior of the student, they should be aware. Students should know which instructional method and technique assessments should be used. Teacher candidates state about the teacher-parent cooperation and they also mention that if the parent cannot make the students to do home works and cannot be interested in then student cannot advance.

In brief, it is determined that the teacher candidates have different beliefs and attitudes towards the instructional strategy-method-technique and assessment-evaluation. It is established that teacher candidates are confused about the instructional strategy-method ad techniques. It is resulted that some of the teacher candidates' information on the instructional strategy-method-technique and assessment-evaluation are short and based on memorization and they cannot give deeply information and examples and have misconceptions about these.

Suggestions

This research gives an idea about PCK topic of the teacher candidates, who study in Faculty of Education in TRNC. In other words, the ideas of these teacher candidates based on the instructional strategy-method-technique and assessment and evaluation techniques, which is thought to provide them an effective education in Science lessons thinking that it is ready for teaching practice but the obtained data show that teacher candidates do not have enough information about PCK. One of the reasons for this result is the

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practice of the trainers who take part in the teacher training program. For this reason, PCK of the trainers can be examined also for the future researchers.

In terms of new researches, it is also recommended to compare the knowledge and practices of PAB with teachers who are working in different conditions and teacher candidates in different universities and teachers with different years of experience.

CONFLICT OF INTEREST

None

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ARTICLE

ANALYSIS OF THE OPINIONS OF SECONDARY SCHOOL STUDENTS ABOUT PROBLEMATIC INTERNET USE

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ABSTRACT

The aim of this research is to identify the problematic internet use of secondary school students studying in the Turkish Republic of Northern Cyprus (TRNC). The research was conducted in the secondary schools and high schools operated by the Department of Secondary General Education of the Ministry of National Education and the high schools operated by the Department of Vocational Technical Education. A total of 1206 students in 6th, 7th, 8th, 9th, 10th, 11th and 12th during the Academic Year of 2016-2017 participated in the descriptive study. The data collection tools consist of two different types of questionnaires, namely 'Personal Information Form' and 'Problematic Internet Use Scale'. The findings of the survey revealed that there were significant statistical differences in problematic internet use regarding the gender, the district of the school and the duration of internet use. The findings also show that there were no significant differences in variables, like school types and forms. Aggression analysis also revealed that the level of weekly internet use and problematic internet use is 25.5 %. It can be seen that the majority of students opted for 'Fairly Applicable' regarding problematic internet use. According to the findings of this research, it is clear that the level of internet use of students studying at secondary schools and vocational schools is high. In this essay the results of the research are analysed in the light of the findings and some recommendations are provided.

KEY WORDS
Problematic internet usage, Internet addiction, Secondary School Students, Northern Cyprus

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INTRODUCTION

Rapid developments in information and communication technologies (ICTs) and the implementations of these technologies are spreading at an equal pace in almost all societies [33, 23, 1]]. The fact that the internet is an easily accessible network has made it indispensable for everyone not only in the fields of work, games, hobbies, health, child development, and education but also in our daily social interactions [29, 32, 22]. The many opportunities that the internet provides us, facilitate, enrich, diversify and improve human life [3, 10, 4, 5]. However, as it is with the development of every technological vehicle, along with its positive contributions, the internet has also caused the emergence of problematic human behaviour [2, 7, 27]. [11] defines Healthy Internet Usage as the use of the internet in a planned time frame that is aimed to meet the desired purpose without any disturbance of thought and behaviour. In addition, he maintains that those who access the internet in a healthy way use it for many purposes, such as acquiring information, establishing social relations, for business and playing games. Similarly, [26] conclude that their study on the negative effects of the internet has shown that excessive usage of the internet can result in addiction, which ultimately damages social relations. In recent years, many researchers have highlighted concepts, such as excessive internet usage, internet addictin, problematic internet usage, pathological internet usage and computer dependency [11, 18, 19, 35, 31]. Despite the fact that the concept of addiction has been traditionally used to describe physical dependencies towards substances, this concept is also used in relation to the over usage of the internet [34, 12]. Compared to previous years, students can use their smart phones in schools more freely and this is considered to be a factor which possibly increases the incidence of problematic behaviours. [25] stated that problematic internet usage behaviours can negatively affect a person's adolescence, youth, and even adulthood. While [13] lists online-sex, online-gambling, online-stock exchange and online-games as the most common causes of addiction related to problematic internet usage, [26] have similarly found that students who play online games and spend time on social networking sites tend to experience a more problematic internet usage than students who use the internet to do research, to follow up on current news, and to access their e-mail.

When problematic internet usage behaviors, which particularly affect young individuals adversely, are taken into consideration, it is fairly clear how imperative it is to recognise such negative behaviours in the early stages and to establish prevention strategies [21, 24]. It is necessary to obtain data to determine the behaviours of students who are engaging in problematic internet usage at schools. The main purpose of this study is to examine the views on problematic internet usage of the students who are enrolled in the schools registered to the Ministry of National Education (MoNE), the General Directorate of Education (GDE) and the Vocational Technical Secondary Education Office (VTSEO) in the Turkish Republic of Northern Cyprus (TRNC).

The overall purpose of the study sought to answer the following questions:

1. Is there a meaningful difference according to the scale dimensions of the problematic internet usage of the students?
2. Are there any significant differences in the opinions of students related to the subject of problematic internet usage according to the following variables?

a) Gender
b) Type of School

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c) Form
d) School District and
e) Weekly Internet Usage Time

MATERIALS AND METHODS

Research model

The study is descriptive and the general screening model was utilised. The general screening model is the screening arrangements carried out with a group, sample group or a paradigm or the entire universe in order to draw a conclusion about the universe composed of numerous elements [17].

Study group

The population of this research was 18,978 students who were enrolled in the 2015 - 2016 education year in the schools registered to the TRNC Ministry of National Education, the General Directorate of Secondary Education and the Office of Vocational Technical Secondary Education. The figures concerning the number of students constituting the population were obtained based on the information in the statistics books of the TRNC MoNE, the General Directorate of Secondary Education and the Office of Vocational Technical Secondary Education.

In the study, the regions of the TRNC were identified as the substratum. The sampling was composed by the simple random sampling method in the determined substratum. In [Fig. 1], the population and the selected sample groups are provided in detail.

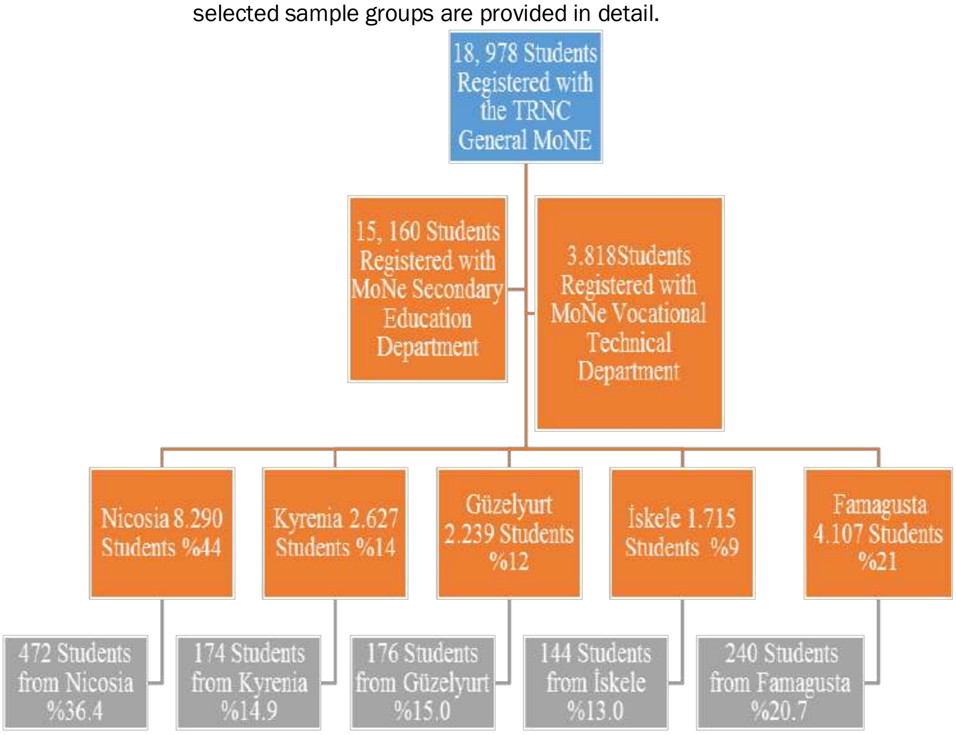

Fig. 1: Population, sample and regional population distribution rates.

The target sampling fraction of the students constituting the sample group is 6%. [6] indicate that the Kaiser-Meyer-Olkin (KMO) value has to be calculated at 0.60 or higher for the adequacy of the data to the factor analysis. [Table 1] illustrates the demographic information of the students participating in the survey.

[Table 1] illustrates that the study was conducted with a balanced group in terms of the distribution of the students' genders. As for the distribution according to the type of school,529 (43.9%) of the participants were in middle school, 389 (32.3%) were in high school and 288 (23.8%) were attending a vocational high school.

Data collection and data collection tool

A quantitative method was used in order to collect the data. The scale consisted of two parts. First, the "Personal Information Form" was used in order to obtain demographic information, such as gender, age, forms and weekly internet usage hours of the students participating in the research. Next, the "Problematic Internet Usage Scale" prepared by [9] was implemented. The five-point Likert scale contained 33 items in

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total from which the participants had a choice of "Highly Applicable", "Fairly Applicable", "Somewhat Applicable", "Rarely Applicable" and "Not at all Applicable". The scale consisted of three factors; the internal consistency (α) of the 33 items included in the scale was 0.94. If the internal consistency of the three factors makes up the scale, the first factor consisting of 17 items is "negative results of the internet" α: 0.92,the second factor consisting of 10 items is "social benefit / social convenience" α: 0.83 and the third factor consisting of 6 items is the "over usage period" α: 0.75. These results show that the internal consistency of the problematic internet usage scale is very high and reliable.

Table 1: Distribution of the demographic characteristics of students

Gender	N	%
Female	608	50.4
Male	598	49.6
Form distribution	**N**	**%**
6. Form	177	14.7
7. Form	176	14.6
8. Form	176	14.6
9. Form	169	14
10. Form	169	14
11. Form	169	14
12. Form	170	14.1
Type of School	N	%
Middle School	529	43.8
High School	389	32.3
Vocational High School	288	23.9
Total	**1206**	**100**

Solution and interpretation of data

The data collected in the study was uploaded on to the "Statistical Package for Social Science" (SPSS) v.24.0 package program and analysed under expert supervision. The T-test, Mean, Frequency, Variance Analysis (ANOVA), Tukey HSD, Multiple Regression Analysis, Mann-Whitney test and Kruskal-Wallis tests were used in order to analyse the data.

RESULTS

Findings and comments

In this section, the findings and interpretations obtained from the statistical analysis of the quantitative data collected from students participating in the research "Opinions on Problematic Internet Usage" are included.

Analysis of students' problematic internet usage scale according to sub-dimensions

The problematic internet usage levels of students were determined in the data obtained by use of the problematic internet usage scale.

Table 2: Analysis results of students' problematic internet usage scale according to sub-dimensions

Problematic Internet Usage (PIU)	N	$\bar{X}$	SS
Negative Results of the Internet	1206	3.67	0.934
Social Benefit / Convenience	1206	3.52	0.919
Over Usage	1206	3.28	0.830
General / Grand Total	1206	3.49	0.798

According to [Table 2], the students focused on the "Highly Applicable" option regarding the item related to problematic internet usage. The focus on the negative effects of the internet and the Social Benefit / Convenience sub-dimension seem to be in the "Highly Applicable" category, whereas the Extra Usage sub-dimension seems to concentrate in the "Somewhat Applicable" option. These findings demonstrate that the problematic internet usage of students participating in the research was at a high level.

Analysis of Students' Opinions about Problematic Internet Usage According to the Gender Variable
The results of the t-test made it possible to determine whether there was a meaningful difference in the Problematic Internet Usage According to Gender shown in [Table 3].

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Table 3: T-Test analysis of students' opinions about problematic internet usage according to gender

Problematic Internet Usage	Gender	N	$\bar{X}$	SS	T	P
Negative Outcomes of the Internet	Female	608	3.55	1.022	-4,582	.000
	Male	598	3.80	0.817		
Social Benefit / Convenience	Female	608	3.43	1.001	-3,554	.000
	Male	598	3.62	0.819		
Over Usage	Female	608	3.18	0.842	-4,371	.491
	Male	598	3.38	0.806		
General Total	Female	608	3.39	0.865	-4,675	.000
	Male	598	3.60	0.709		

[Table 3] shows that the mean of the gender variable was statistically significant[t(1204)=-4.582, p=.000] in reference to the Negative Outcomes of the Internet. The means of the negative outcomes of the internet formales students ($\bar{X}$=3.80, SS=0.817) were found to be significantly higher than in the case of female students ($\bar{X}$=3.55, SS=1.022.

Similarly, it was found that the Social Benefit / Convenience sub-dimension means differ statistically in regard to the gender variable [t(1204)=-3.554, p=.000]. It was concluded that the Social Benefit / Convenience sub-dimension means of male students ($\bar{X}$=3.62, SS=0.819) were significantly higher than in the case of female students ($\bar{X}$=3.43, SS=1.001).

No statistically significant difference was found in the sub-dimension means for Over Usage of the Internet[t(1204)=-4.371, p=.491].

The difference between the means for the two gender groups was found to be statistically significant [t(1204)=-4.675, p=.000]. The findings show that male students ($\bar{X}$=3.60, SS=0.709) had a significantly higher level of problematic internet usage than female students ($\bar{X}$=3.39, SS=0.865).

Analysis of Students' Opinions about Problematic Internet Usage According to the Type of School Variable
The results of the descriptive statistics and variance analyses, which were conducted in order to determine whether there was a significant difference related to problematic internet usage according to the Type of School variable, are presented in [Table 4] and the ANOVA analysis results are given in [Table 5].

Table 4: Mean and standard deviation values of the type of school variable in relation to problematic internet usage

Type of School		Negative Outcomes of the Internet	Social Benefit/ Convenience	Over Usage	Problematic Internet Usage
Middle School	$\bar{X}$	3,66	3,52	3,31	3,50
	N	529	529	529	529
	SS	0,926	0,905	0,837	0,798
High School	$\bar{X}$	3,68	3,53	3,23	3,48
	N	389	389	389	389
	SS	0,896	0,930	0,799	0,771
Vocational High School	$\bar{X}$	3,70	3,54	3,28	3,51
	N	288	288	288	288
	SS	0,999	0,933	0,859	0,836

[Table 4] determined that although there was no significant statistical difference among students with problematic internet usage in middle school, high school and vocational high school in the Type of School variable, the group average was high in general.

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Table 5: ANOVA analysis results according to type of school variable related to students' problematic internet usage

Problematic Internet Usage	Source of Variance	Sums of Squares	df	Means of Squares	F	P
Negative Outcomes of the Internet	Between Groups	.339	2	.170	.194	.824
	Within Groups	1051.962	1203	.874		
	Total	1052.301	1205			
Social Benefit / Convenience	Between Groups	.078	2	.039	.046	.955
	Within Groups	1019.471	1203	.847		
	Total	1019.548	1205			
Over Usage	Between Groups	1.529	2	.765	1.108	.331
	Within Groups	830.515	1203	.690		
	Total	832.044	1205			
General Total	Between Groups	.134	2	.067	.105	.900
	Within Groups	768.639	1203	.639		
	Total	768.773	1205			

[Table 5] reveals the variance analysis conducted in order to determine whether the opinions of the students were meaningfully different with respect to the type of school they were attending. The result showed that the group mean score showed no significant difference[F(2-1203)=0.105; P=0.900]. Similarly, when the Negative Outcomes of the Internet, (F(2-1203)=0.194; P=0.824), Social Benefit / Convenience(F(2-1203)=0.046; P=0.955) and Over Usage(F(2-1203)=1.108; P=0.331)sub-dimensions were examined, it was observed that the problematic internet usage group mean score did not show any significant difference in relation to the Type of School variable; however, the problematic internet usage levels were high.

Analysis of Students' Opinions about Problematic Internet Usage in relation to the Form Variable

Table 6: Form variance mean and standard deviation values in relation to students' problematic internet usage

Form		Negative Outcomes of the Internet	Social Benefit/ Convenience	Over Usage	Problematic Internet Usage
6	$\bar{X}$	3.61	3.45	3.31	3.46
	N	177	177	177	177
	SS	0.948	0.941	0.896	0.841
7	$\bar{X}$	3.64	3.51	3.27	3.47
	N	176	176	176	176
	SS	0.958	0.929	0.808	0.803
8	$\bar{X}$	3.72	3.59	3.36	3.56
	N	176	176	176	176
	SS	0.871	0.842	0.805	0.749
9	$\bar{X}$	3.59	3.47	3.24	3.43
	N	169	169	169	169
	SS	0.921	0.854	0.827	0.767
10	$\bar{X}$	3.72	3.58	3.27	3.52
	N	169	169	169	169
	SS	0.944	0.935	0.823	0.807
11	$\bar{X}$	3.66	3.52	3.26	3.48
	N	169	169	169	169
	SS	0.939	0.914	.797	0.780
12	$\bar{X}$	3.78	3.557	3.25	3.53
	N	170	170	170	170
	SS	0.955	1.017	0.859	0.842

[Table 6] shows that there were no statistically significant differences between the mean scores of problematic internet usage according to the form variable and that of the three sub-dimensions in general, and the mean scores of the group averages for problematic internet usage.

Table 7: ANOVA analysis results related to the problematic internet usage according to the form variable

Problematic Internet Usage	Source of Variance	Sums of Squares	df	Means of Squares	F	P
Negative Outcomes of the Internet	Between Groups	5.116	6	.853	.976	.440
	Within Groups	1047.185	1199	.873		
	Total	1052.301	1205			
Social Benefit / Convenience	Between Groups	2.982	6	.497	.586	.742
	Within Groups	1016.567	1199	.848		
	Total	1019.548	1205			
Over Usage	Between Groups	1.845	6	.308	.444	.849
	Within Groups	830.199	1199	.692		
	Total	832.044	1205			
General Total	Between Groups	2.064	6	.344	.538	.780
	Within Groups	766.709	1199	.639		
	Total	768.773	1205			

The results of the ANOVA analysis in [Table 7] revealed that the means of problematic internet usage in general and the means of the sub-dimensions did not yield a significant difference.

Analysis of Students' Opinions about Problematic Internet Usage in Relation to the School District Variable
The results of the Kruskal-Wallis analysis conducted in order to determine whether the students' responses yielded a significant difference for problematic internet usage in relation to the school district variable are presented in [Table 8].

Table 8: Kruskal-Wallis test of the school district variable in reference to students' problematic internet usage

Problematic Internet Usage	School District	N	Rank Average	df	X^2	P
Negative Outcomes of the Internet	Nicosia	439	608.86	4	30.080	.000
	Kyrenia	180	646.14			
	Famagusta	250	628.49			
	Güzelyurt	181	632.99			
	İskele	156	464.97			
Social Benefit/ Convenience	Nicosia	439	603.76	4	23.578	.000
	Kyrenia	180	601.20			
	Famagusta	250	639.05			
	Güzelyurt	181	655.07			
	İskele	156	488.63			
Over Usage	Nicosia	439	598.04	4	14.190	.007
	Kyrenia	180	630.89			
	Famagusta	250	632.06			
	Güzelyurt	181	627.48			
	İskele	156	513.67			
General Total	Nicosia	439	601.71	4	25.871	.000
	Kyrenia	180	627.98			
	Famagusta	250	639.43			
	Güzelyurt	181	641.68			
	İskele	156	478.38			

Statistically significant differences were found between the group averages as a result of the Kruskal Wallis test, where the students' opinions on bullying behaviours were based on the school district variable (P=.000; P<0.05). The Mann-Whitney U test is a non-parametric method used to compare the mean of two independent groups that are not normally distributed [6]. According to this; the cyber bullying behaviors of the students in İskele (709.34); were found to be statistically significantly higher than the students in Nicosia (569.97), Girne (661.12), Famagusta (564.54) and Güzelyurt (590.10) regions. However, The reason as to why the level of Negative Outcomes of the Internet, Social Benefit / Convenience, Extreme Usage sub-dimensions and the general group sub-dimensions' means were considerably lower in İskele than in the other district may be linked to the inadequate internet services in the region.

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Assessment of Students' Opinions Regarding Problematic Internet Usage According to the Weekly Internet Usage Duration Variable

The descriptive statistics and variance analysis results are shown in [Table 9] and the ANOVA analysis results, assessing the relationship between problematic internet usages to weekly internet usage are given in [Table 10].

Table 9: Average and standard deviation Values of the weekly internet usage duration variable in reference to students' problematic internet usage

Duration of Usage		Negative Outcomes of the Internet	Social Benefit/ Convenience	Over Usage	Problematic Internet Usage
Less than 4 Hours	$\bar{X}$	3.19	3.03	2.92	3.05
	N	284	284	284	284
	SS	1.077	0.999	0.820	0.875
4 to 12 hours	$\bar{X}$	3.66	3.43	3.13	3.40
	N	251	251	251	251
	SS	0.750	0.760	0.627	0.569
13 to 27 Hours	$\bar{X}$	3.60	3.50	3.15	3.41
	N	376	376	376	376
	SS	0.768	0.744	0.640	0.601
More than28 Hours	$\bar{X}$	4.16	4.08	3.85	4.03
	N	295	295	295	295
	SS	0.841	0.823	0.857	0.758

Table 10: ANOVA analysis results for problematic internet usage according to the weekly internet usage duration variable

Problematic Internet Usage	Source of Variance	Sum of Squares	Df	Square Averages	F	P	Explanation
Negative Outcomes of the Internet	Between Groups	147.068	3	49.023	65.094	.000	Mean Difference
	Within Groups	905.233	1202	.753			
	Total	1052.301	1205				
Social Benefit/ Convenience	Between Groups	175.406	3	58.469	83.255	.000	Mean Difference
	Within Groups	844.143	1202	.702			
	Total	1019.548	1205				
Over Usage	Between Groups	160.076	3	53.359	95.447	.000	Mean Difference
	Within Groups	671.968	1202	.559			
	Total	832.044	1205				
General Total	Between Groups	157.914	3	52.638	103.577	.000	Mean Difference
	Within Groups	610.859	1202	.508			
	Total	768.773	1205				

The individual analysis on the Negative Outcomes of the Internet, Social Benefit / Convenience, Over Usage sub-dimensions and the general group averages indicates that there was a statistically significant difference with reference to the variable regarding the weekly duration students spend on the internet. According to the results of the Tukey HSD test, conducted in order to determine which groups exhibited differences, the sub-dimension levels and the general group average of students, who spent more than 28 hours per week, was found to be significantly higher than those who use the internet for less than 4 hours, between 4 to 12 hours and between 13 to 27 hours weekly. Accordingly, it can be stated that the rate of problematic internet usage increases considerably as the weekly internet usage duration increases.

CONCLUSION AND DISCUSSION

The data obtained after the implementation of the problematic internet usage scale demonstrate that the problematic internet usage levels of the students were generally high. The participants mostly chose the 'Fairly Appropriate' option for the Negative Outcomes of the Internet and Social Benefit / Convenience sub-

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dimensions and the 'Somewhat Appropriate' option for the Over Usage sub-dimension. However, a study aimed at determining the levels of internet addiction and the influencing factors in secondary school students in the TRNC conducted by [24] yielded different results. According to the findings, 59.9% were in the internet addiction low-risk category, 20.7% were in the high-risk category, 13.5% had no addiction risk and 5.9% were addicted to the internet. The inference is that the four-year lapse between the two studies is the reason for the difference in the results, indicating that problematic internet usage in the TRNC increased in 2017. In the study, it was found that the problematic internet usage levels of male students were significantly higher than in the case of female students. The reasons supportive of this finding include online gaming as well as the use of the internet for various sexual activities. In a study conducted with 563 participants at the Gazi University, [16] determined that men use the internet for sexual activities. In another study conducted with 114 vocational high school participants, [15] found that the problematic internet usage of male students was significantly higher than that of female students. However, there are also findings to suggest that the level of problematic internet usage does not vary according to the gender variable. Similarly, in his study conducted with 464 university students, [8] found that the problematic internet usage levels of the students did not show any significant difference according to the gender variation.

The result of this research yielded that the students who were studying in the schools registered to MoNE in the TRNC had a high level of problematic internet usage regardless of the type of school they were attending. Likewise, upon analysing the results of a study conducted with 385 high school students, [25] stated that the level of problematic internet usage did not show any significant difference in relation to the school variable. In another study, [30] found that the problematic internet usage levels of students in 540 high school students did not show any significant difference in relation to the Type of School variable. In the study, it was concluded that the problematic internet usage levels of the students in the schools registered to the MoNE in the TRNC were high regardless of the form of education they were attending. The literature review indicates that the results obtained from this study are consistent with similar studies. In a study conducted with 710 high school students, [15] stated that problematic internet usage levels did not significantly differ in relation to the form variable. Likewise, [9] stated that the results of their study conducted with 2076 students showed that the problematic internet usage levels of students did not present any significant difference according to the form variable. However, there are also studies yielding different results. According to [28] study, which was conducted with 1723 students, the problematic internet usage levels of the students showed significant differences in relation to the form variable.

It was concluded that the problematic internet usage levels of the students participating in the study showed significant differences between school districts and that the problematic internet usage levels of students who were attending the general and vocational secondary education schools registered to the MONE were high in general. The problematic internet usage level of the students in İskele was significantly lower than for other regions (Nicosia, Kyrenia, Famagusta, and Güzelyurt). This is thought to be because of the poor internet services in the region. No studies have been found to examine the problematic internet usage level in relation to the school district variable.

The study shows that as the internet usage time of students participating in the study increased, the problematic internet usage and sub-dimensions increased significantly. The literature supports that the results obtained are consistent with similar studies. The result of a study involving 493 students conducted by [20] indicated that the duration spent on the internet has a direct correlation with problematic internet usage. The results of the study revealed that the level of problematic internet usage increased significantly as a function of the internet usage duration. Similarly, in a survey involving 754 secondary school students, [14] found that the level of problematic internet usage also increased in line with the increase in the duration of internet usage.

Recommendations

In this section, recommendations are made based on the findings of the study.

Recommendations for the ministry of national education

Seminars on problematic internet usage may be organized for students in secondary schools and vocational secondary schools.

The research was conducted in secondary, high school and vocational high schools. Studies towards the prevention of problematic internet usage and informative seminars aimed at primary school students are important for the education of students, who will be future users of the internet.

Recommendations for researchers

The data used in the survey is obtained from students attending secondary, high school and vocational high schools. Further research can be conducted on primary and university students.

Students at secondary school level can be guided towards using the internet healthily and beneficially through the organization of educational programs and alternative activities that promote socialization and interaction.

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CONFLICT OF INTEREST
None

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ARTICLE

EVALUATION OF OBESE ADOLESCENTS AND OBESE ADULT RELATED TO BODY PERCEPTIONS AND BODY IMAGES

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ABSTRACT

The study is a qualitative study and aims to evaluate the opinions of obese adolescents and obese adults about body perception and body images. Within the scope of the study, 30 obese subjects, 15 adolescents and 15 adults, whose body mass index (BMI) is over 25, constitute the study group. In this study, "Personal Information Form and Interview Form" which were developed by the researchers were used as data collection tools. The analysis was analyzed by the content analysis method. As a result of the research, when the points of view of the obese adolescents and obese adults are compared, the two groups have similar and different views.

KEY WORDS
Body Mass Index, self-perceptions, body

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INTRODUCTION

Primary objective of individual, family and community is the individual to be healthy and productive. The World Health Organization defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity [1].

Human life consists of development stages that contain physiological and psychological characteristics. These phases are childhood, adolescence, adulthood and old age. Adolescence is a transition stage, which is between childhood and adulthood and in which bodily, physical and social growth is rapid [2]. Even though there are developments in weight and height of adolescents, it is seen that girl and boy adolescents are taller and have more weight when compared with adolescents of previous years [3]. The effect of hormones that change within the body during adolescence increase with the contribution of the increased appetite and a tendency towards gaining excessive weight is seen. The mistakes that are made on particularly nutrition are the reason for gaining weight. Obesity is a chronic disease, which is sourced when energy intake is more than energy spent and which depends on the increase of body fat tissue. Body Mass Index is commonly used for the description of obesity. Body mass index is calculated by dividing body weight, which is measured as kilograms, by the square of body height, which is measured in meters, and adults whose Body Mass Index is between 18,50 and 24,99 and children and adolescents, whose Body Mass Index is between 15 and 85 percentages are accepted as having normal weight [4]. Having 30 or more Body Mass Index is accepted as obesity [5]. According to the research carried out by Turkish Statistical Institute on health, body mass indexes of adolescents are determined to be within normal value as 69,2% [6].

When related literature is reviewed, it is found that obesity is seen among every age. Three periods are underlined to be important for the development of obesity. These are; prenatal, 5-7 ages and adolescence. The last critical stage, in which permanent fat is created, is adolescence. In accordance with the results of many researches, being overweight that begins at the childhood continues at adulthood as well. A study indicates that 26-41% of children that are overweight at preschool ages and 42-63% of children that are overweight at school ages remain being overweight at adult ages [7]. Another study carried out by Öncü (2009) [8] states that 1/3 of obese children and 80% of obese adolescents remain obese when they become adults. When related literature review is carried out, it appears that approximately 30% of obesity cases seen in adulthood are based on childhood ages [9].

A majority of conducted studies indicate that body dissatisfaction exists among obese individuals. Excessive weight gain that occurs as a result of unhealthy nutrition of individuals during their adolescence causes disruption on their body images. There is a positive image between being physically attractive among girls and having athletic body structures among boys with having a positive sense of self according to the studies conducted [10].

Body and mental health is known as a whole at the present time. When teenagers don't like their appearances, this can create negative sense of self and low self-esteem. In accordance with Rosenberg, self-esteem is a part of assessor attitudes that they attribute on the individuals or the individuals' perception of his/her self-value [11]. In addition, self-esteem is accepted as feelings of love, respect and confidence against themselves as a result of individuals to accept their abilities and powers by knowing and assessing themselves [12]. It is pointed in the literature that self-esteem decreases among adolescents with gaining weight. Researches which show that there is no relationship with obesity and decrease of self-esteem among adults have been found. Dissatisfaction on body perception is seen as the reason for obese individuals to want to lose weight. Moreover, there are studies that show that dissatisfaction on body is related with the perceived body weight instead of the body weight [13].

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An increase has been seen in the number of obesity rate within our community and the importance of raising awareness on that has been highlighted [14]. Obesity is assessed as a psychosomatic disease and it is seen that a multi-dimension treatment approach is required for its treatment. The majority of the studies that are carried out on psychosocial aspect of obesity are conducted among adults. Conducted studies show that individuals that apply for treatment are in need of psychosocial support [15].

On the basis of personal expressions of adolescents and adults, their opinion on their senses of self and body are aimed to be presented with this study. Problem statement for the purpose of the study can be expressed as follows: "How is the assessment of opinions of adolescents and adults, whose Body Mass Index is high, on their senses of self and their body images?" Opinions of senses of self and body images of adolescents and adults, whose Body Mass Index is high, will be assessed comparatively in this study and it is aimed to present clues for psychosocial support studies that will be provided.

MATERIALS AND METHODS

Model of the study

Case study of qualitative research patterns has been used in this study. Case study is an approach, in which factors (environment, individuals, incidents, processes, etc.) of a situation are examined with a holistic approach and it focuses on how they affect the related situation and how they are affected from the related situation [16].

Study group

The study group is composed of 30 individuals in total, whose body mass index level is over 30 as 15 obese adults, 7 of which are women and 8 of which are men, and as 15 obese adolescents, 9 of which are girls and 6 of which are boys. Maximum variation sampling of sampling methods has been used for creating the study group. People from different sex and age groups of 30 obese individuals, whose body mass index is high, constitute the study group. Thus, different perspectives are going to be presented on the subject of the study. Personal information form has been applied on 30 obese individuals during interviews. The general [Table 1] that is given below has been created as a result of the answers given by 30 obese individuals to the personal information form.

Table 1: Personal information of obese adolescents and adults

Variable		Adolescents	Adults
Sex	Female	9	8
	Male	6	7
Age	15-17	11	
	12-14	4	
	24-30		4
	31-42		2
	50-74		9
Civil Status	Married		13
	Single		2
Educational Status	Primary School		2
	Middle School		2
	High School		7
	Undergraduate		3
	Graduate		1
	Student	15	
Level of the school they study	Middle School	4	
	High School	11	
Birth order in family	1. born	5	6
	2. child	6	5
	3. child	3	3
	4. child	1	1
Body Mass Index (BMI)	32.3-34.1/ 33.2-38.13	6 (Female)	5 (Female)
	36.3-36.6/39.1-45.1	3 (Female)	3 (Female)
	30.0-34.9/30.0-35.5	3(Male)	4 (Male)
	37.0-41,5 / 38,8-45,1	3(Male)	3 (Male)

Data collection tools

The data of the study has been gathered with the Personal Information Form, which is prepared by the researchers in order to gather information from obese adolescents and adults, and with the semi-structured Interview Form on Senses of Self and Body Images of Obese Adolescents and Adults, which is also prepared by the researchers. Questions, which are prepared to determine sex, age, civil status, educational status and occupations, weight and height of obese adolescents and adults, have been included in the personal information form. Questions that are prepared to compare senses of self and body images of obese adolescents and adults, whose body mass index is high, have been given within the framework of Interview Form on Senses of Self and Body Images of Obese Adolescents and Adults.

Collecting data

In order for the individuals to get over their fear of being exposed and to feel safe, the interviews have been completed as taking notes during the collection of data. Therefore, individuals that participated in the study were enabled to give reliable answers. In addition, names and surnames of the individuals that participated in the study have been kept confidential and their confidentiality rights have been respected.

Permissions were taken from the participants before interviews were made with obese adolescent and adult individuals, whose body mass index is high. Researchers spent long time with the interviewers during the time the interviews were held at different locations (house, school, etc.). To establish a trust environment, collected data to reflect the truth and to be strong for the validity of the study has been aimed that way.

Data analysis

Data of this study has been analyzed with the content analysis method. Interviews were written first then they were prepared to be analyzed by the researcher while the content analysis was being made.

Each question on Interview Form on Senses of Self and Body Images of Obese Adolescents and Adults that is the data collection tool has been accepted as a category. Firstly, two main categories that are sense of self and body image have been taken as basis. Two main categories in the study have been presented as fundamental category at the findings section accordingly. Titles under each category have been taken as basis as subcategories and analysis has been made. Code analysis (keyword) has been made first of all with each question. Keywords in the answers given by the participants to each question have been determined accordingly. Codes in each question have been joined and themes have been obtained. Findings of the study have been presented with the basis of themes. Themes have been shown in tables and the frequency of each theme has been determined. Findings have been explained in written form under the tables and themes have been explained by giving quotations from the interviews of the participants.

Validity: Findings obtained from interviews made with 30 obese adolescent and adult individuals have been written in a detailed way and then the way of reaching deductions have been expressed. Opinions at the interviews have been given with direct quotations; thus the validity of the study has been made.

Reliability: The researchers avoided leading the participants in this study. Data that was obtained through interviews have been analyzed by the researchers and categories have been determined with coding method. In order to show the reliability of the coding used in this study, the researchers and two experts that are experienced on qualitative research have worked together at data analysis process. As codes have been accepted as themes directly, internal reliability has not been checked. One of the measures that will be taken by the researchers on external reliability is that defining individuals, which are data sources in the study, in a clear way. Data have been kept in a way that can be analyzed by someone else.

FINDINGS AND INTERPRETING

Findings on senses of self

Table 2: Opinions of obese adolescents and adults on knowing themselves

Self knowledge at obese adolescents	f	Self knowledge at obese adults	f
Yes	11	Yes	12
No	4	No	3
Total	15	Total	15

As it can be seen in [Table 2], 30 answers have been given to the question; “Do you believe that do you know yourselves enough?” that was asked to 30 obese individuals. 11 of obese adolescent individuals that participated in the study said “yes”, 4 of them said “no;” whereas 12 of obese adult individuals said “yes” and 3 of them said “no.”

The detailed response of a 42 years old male adult on the general answer of “yes” is as follows:
“The experiences I had at dorm, military service and marriage enabled me to know myself. I was well connected at my dorm life and during my military service and I learned to get over some difficulties. I learned life at marriage.” (K2)

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Table 3: Opinions of obese adolescents and adults on their characteristics

Personality characteristics of obese adolescents	f	Personality characteristics of obese adults	f
Good social relations, fun and cheerful	4	Successful, fun, good social relations	6
Successful and ambitious	4	Helpful	3
Sensitive and delicate	3	Emotional	2
Sympathetic	1	Ordinary	1
Confident	1	Good looking and sympathetic	1
Aggressive	1	Inactive and overweight	1
Doesn't go beyond his/her limits	1	Poor social relations	1
Total	15	Total	15

30 obese individuals that participated in the study were asked "How do you describe yourself?" and 30 answers were given as it can be seen in [Table 3]. 4 obese adolescents that participated in the study said "good social relations, fun and cheerful," 4 of them said "successful and ambitious," 3 of them said "sensitive and delicate," 1 of them said "sympathetic," 1 of them said "confident," 1 of them said "aggressive" and 1 of them said "he/she doesn't go beyond his/her limits." 6 of obese adults that participated in the study said "successful, fun and good social relations," 3 of them said "helpful," 2 of them said "emotional," 1 of them said "good looking and sympathetic," 1 of them said "inactive and overweight" and 1 of them said "poor social relations."

The detailed answer of a 28 years old female adult on the general answer of "successful, fun and good social relations" is given below:

"I think of myself as successful, steady and fun according to the atmosphere I'm in." (K14)

The detailed answer of a 17 years old female adolescent on the general answer of "sensitive and delicate" is as follows:

"I have a very sensitive and delicate structure." (K9)

Table 4: Opinions of obese adolescents and adults on what would they change with themselves if they had a magic wand

The parts obese adolescents want to change with themselves	f	The parts obese adults want to change with themselves	f
Weight	14	Weight	11
Eye colour	1	Doesn't want to change anything	2
		Increasing education level	1
		Breasts	1
Total	15	Total	15

As it can be seen in [Table 4], 30 obese individuals that participated in the study were asked "What would you like to change with yourself if you had a magic wand?" and 30 responses were given. 14 of obese adolescents that participated in the study said their "weight", 1 of them said "the colour of his/her eyes"; whereas 11 obese adults said their "weight", 2 of them said they "don't want to change anything," 1 of the said "increase his/her education level" and 1 of them said "breasts."

The detailed answer of an adult on the general answer as "weight" is given below:

"I would like to lose weight and have a weight of 75 kilograms." (K9)

Table 5: Opinions on their strong aspects when obese adolescents and adults compare themselves with individuals at the same age

Opinions of obese adolescents on their strong aspects	f	Opinions on obese adults on their strong aspects	f
Strong, make themselves listened to	7	Strong, confident	6
Being fun	3	Smart, ingenious	4
Good at social relations	2	No difference	2
Successful	2	Being healthy	1
Having nice skin	1	Good at social relations	1
Total	15	Total	14

As it can be seen in [Table 5], 30 obese individuals that participated in the study were asked "When you compare yourselves with individuals at the same age, what do you think your strong and poor aspects are?" 15 responses were given by obese adolescents that expressed their strong aspects and 14 responses were given by obese adults. 7 obese adolescents that participated in the study said "strong, make themselves listened to," 3 of them said "being fun," 2 of them said "good at social relations," 2 of them said "successful" and 1 of them said "having nice skin." 6 obese adults that participated in the study said being "strong, confident," 4 of them said "smart, ingenious," 2 of them said "there is no difference," 1 of them said "being healthy" and 1 of them said "good at social relations." One of the obese adults did not answer this question.

Table 6: Opinions on their poor aspects when obese adolescents and adults are compared with individuals at the same age

Opinions of obese adolescents on their poor aspects	f	Opinions of obese adults on their poor aspects	f
Weight	3	Weight	7
Poor social relations	3	Being restricted on movements	4
Emotional	3	Not being attractive	3
Being quiet	1	Emotional	1
Looking tough	1		
Total	11	Total	15

30 obese individuals that participated in the study were asked "When you compare yourselves with individuals at the same age, what do you think your strong and poor aspects are?" as it can be seen in [Table 6], 11 obese adolescents and 15 obese adults that expressed their poor aspects gave response to the question. 3 obese adolescents that participated in the study said "weight," 3 of them said "poor social relations," 3 of them said "emotional," 1 of them said "being quiet" and 1 of them said "looking tough." 4 obese adolescents did not respond to that question. 7 of the obese adults that participated in the study said "weight," 4 of them said "being restricted on movements," 3 of them said "not being attractive" and 1 of them said "emotional."

The detailed answer of a 51 years old male adult on the general answer of "being restricted on movements" is given below:

"My poor aspect is that I have more bulky and heavy structure when compared with them." (K1)

The detailed answer of a 15 years old male adolescent on the general answer of "weight" is as follows:

"My poor aspect is having more weight according to people of my age." (K5)

Table 7: Opinions of obese adolescents and adults on their senses of self as of gaining weight

Opinions of obese adolescents on themselves after gaining weight	f	Opinions of obese adults on themselves after gaining weight	f
Sad	7	No change	5
Being restricted on movements	3	Being restricted on movements	3
Not affected negatively	3	Not admiring himself/herself	3
Being angry	2	Being excluded from social circle	2
		Not wanting to be in social environments	2
Total	15	Total	15

30 obese individuals that participated in the study were asked "How does this situation affect you after gaining weight?" as it can be seen in [Table 7] and 30 responses were given to that question. 7 of the obese adolescents that participated in the study said "sad," 3 of them said "being restricted on movements," 3 of them said they were "not affected negatively" and 2 of them said "being angry" whereas 5 of the obese adults said there is "no change," 3 of them said "being restricted on movements," 3 of them said "not admiring himself/herself," 2 of them said "being excluded from social circle" and 2 of them said "not wanting to be in social environments."

The detailed answer of a 16 years old female adolescent on the general answer of "sad" is given below:

"I started to feel so sad after I started to gain weight. Nothing I wear looks good on me." (K8)

Findings on body images

Table 8: Opinions of obese adolescents and adults on the parts they like in their appearances

Parts that obese adolescents like physically	f	Parts that obese adults like physically	f
Eyes, face	7	Hands, face	9
Hands	2	Breasts	1

Arms	1	Hips, legs	1
Shoulders	1	Shoulders	1
Total	11	Total	12

As it can be seen in [Table 8], 30 obese individuals that participated in the study were asked "What are the parts you like and you don't like on your body the most?" 11 responses given by obese adolescents and 12 responses were given by obese adults. 7 obese adolescents that participated in the study said their "eyes, face," 2 of them said their "hands," 1 of them said "arms" and 1 of them said "shoulders." 3 of the obese adolescents did not answer to that question. 9 obese adults that participated in the study said their "hands, face," 1 of them said "breasts," 1 of them said "hips, legs" and 1 of them said "shoulders." 3 of the obese adults did not answer to that question.

Table 9: Opinions of obese adolescents and adults on the parts they don't like in their appearances

Parts that obese adolescents don't like physically	f	Parts that obese adults don't like physically	f
Belly, hips, legs	7	Belly, hips, legs	8
Body	4	Hands, feet	3
Don't like himself/herself	3	Breasts	2
Eyes	1	Don't like himself/herself	2
Total	15	Total	15

As it can be seen in [Table 9], 15 obese individuals that participated in the study were asked "What are the parts you like and you don't like on your body the most?" 15 responses were given by obese adolescents and 15 responses were given by obese adults on the parts they don't like on their bodies. 7 obese adolescents that participated in the study said "belly, hips, legs," 4 of them said their "bodies," 3 of them said they "don't like themselves" and 1 of them said he/she doesn't like his/her "eyes." 8 of the obese adults that participated in the study said their "belly, hips," 3 of them said "hands, feet," 2 of them said their "breasts" and 1 of them said he/she "doesn't like himself/herself."

The detailed answer of a 28 years old female adult on the general answer of "belly, hips and legs" is given below:

"The parts that I don't like in my body are my belly, legs and hips of course, in brief I don't like any part of myself except for my face." (K15)

The detailed answer of a 14 years old female adolescent on the general answer of "don't like themselves" is as follows:

"I don't like anywhere on my body. I don't want to look into mirrors." (K2)

Table 10: Opinions of obese adolescents and adults on mirrors

Opinions of obese adolescents on mirrors	f	Opinions of obese adults on mirrors	f
Good	9	Good	12
Bad	6	Bad	2
		Not bad	1
Total	15	Total	15

As it can be seen in [Table 10], 30 obese individuals that participated in the study were asked "How is your association with mirrors?" and 30 responses were given to that question. 9 of the obese adolescents that participated in the study said it was "good" and 6 of them said it was "bad" whereas 12 of the obese adults said it was "good," 2 of them said it was "bad" and 1 of them said it was "not bad."

Table 11: Opinions of obese adolescents and adults on shopping

Obese adolescents' enjoying shopping	f	Obese adults' enjoying shopping	f
Yes	5	Yes	12
No	10	No	3
Total	15	Total	15

As it can be seen in [Table 11], 30 obese individuals that participated in the study were asked "Do you enjoy going shopping?" and 30 responses were given to that question. 5 of the obese adolescents that participated in the study said "yes" and 10 of them said "no" whereas 12 of the obese adults said "yes" and 3 of them said "no."

The detailed answer of a 57 years old woman on the general answer of "yes" is as follows:

"I like shopping very much. I prefer to go particularly to shops that sell plus size." (K12)

The detailed answer of a 15 years old male adolescent on the general answer of "no" is given below:
"I don't go to shopping. My mother buys my clothes instead of me. Besides the things that she buys is always the same style. As I am overweight, fashionable clothes are always small for me." (K3)

Table 12: Opinions of obese adolescents and adults on choosing outfits

Obese adolescents' choosing outfits	f	Obese adults' choosing outfits	f
Loose clothes	13	Loose clothes	10
Wear anything (Doesn't choose outfits)	2	Wear anything	2
		Suits	2
		Tight clothes	1
Total	15	Total	15

30 obese individuals that participated in the study were asked "What kind of outfits do you prefer to wear?" as it can be seen in [Table 12] and 30 responses were given to that question. 13 obese adolescents that participated in the study said they prefer "loose clothes" and 2 of them said they "wear anything (they don't choose outfits)." 10 of the obese adults that participated in the study said they prefer "loose clothes," 2 of them said they "wear anything," 2 of them said they wear "suits" and 1 of them said "tight clothes."

The detailed answer of a 24 years old female adult on the general answer of "wear anything" is given below:

"I continued to wear whatever I want even after I gained weight. I even wear bikinis in summer. I've never had such obsessions." (K8)

The detailed answer of a 16 years old male adolescent on the general answer of "loose clothes" is as the following:

"I usually prefer to wear loose t-shirt and jeans. I buy dark colored and loose t-shirts to cover my belly." (K4)

Table 13: Opinions of obese adolescents and adults on the emotions they feel when there are outfits they don't like on themselves even though they want to wear them

Emotions obese adolescents feel when there are outfits they don't like on themselves even though they want to wear them	f	Emotions obese adults feel when there are outfits they don't like on themselves even though they want to wear them	f
Sad	9	Sad	10
Regret	4	Don't feel anything	3
Don't feel anything (nothing)	2	Get angry (infuriated)	1
		Regret	1
Total	15	Total	15

As it can be seen in [Table 13], 30 obese individuals that participated in the study were asked "How did you feel when there are outfits that you don't like on yourself even though you really want to wear them?" and 30 responses were given to that question. 9 of the obese adolescents that participated in the study said they felt "sad," 4 of them said "regret" and 2 of them said they "did not feel anything (nothing)." 10 of obese adults that participated in the study said they were "sad," 3 of them said they "did not feel anything," 1 of them said he/she "got angry (infuriated)" and 1 of them said "regret."

The detailed answer of a 31 years old female adult on the general answer of "sad" is as the following:

"Of course I feel said if I see something nice and if it doesn't fit me. Sometimes I want to be like other women. My sister is having a wedding; I want to wear a mermaid dress; but what's the point if I look funny." (K3)

The detailed answer of a 15 years old female adolescent on the general answer of "regret" is given below:

"I liked a very beautiful dress for the graduation ceremony that was held last year and I went to shopping with my friends. Everyone were fitted the dresses they liked; but I was the only one that was fat and I couldn't even get in the dress. I never forget that day. I regretted so much as I did not take care of my nutrition." (K6)

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DISCUSSION, CONCLUSION AND RECOMMENDATIONS

When perspectives of obese adolescents and adults on themselves are compared as a result of the study, the similar and different opinions of both groups (opinions of 8 or more participants in each group) can be summarized as follows:

- Majority of the participants in both groups express that they know themselves well.
- Adolescents express themselves as people that socially communicate well, that are fun and cheerful; whereas adults express themselves as successful, fun, helpful and emotional.
- Both adolescents and adults state that they want to get rid of their excessive weight. Conducted studies have indicated that most of the obese individuals want to lose weight due to their dissatisfaction of their bodies [13]. In accordance with Rosen (2002) [17], obese individuals want to lose weight because they don't like their appearances, because they believe that losing weight will increase their appearance and their appeal and they will feel better if they lose weight.
- When adolescents compared themselves with the people at the same age and position, they consider themselves as people that make themselves listened to as their strong aspect. Adults consider themselves as strong and confident individuals. Both adolescents and adults express that being overweight restricts their social relations in their lives as their poor aspects. Schwimmer, Burwinkle and Varni (2003) [18] stated that high level of body mass index at children and adolescents restrict social relations and dynamism. In addition, in the study carried out by Öksüz (2012) [19], it was stated that people, who are not pleased with their own bodies, have personality characteristics that are more pessimistic, that feel inadequate and insecure and that requires approval.
- Adolescents state that gaining weight affect their selves in a negative manner. The effect of gaining weight is seen as adolescents have desire to be admired with regard to their developmental period. On the contrary, they say that their social relations decreased and they abstain from being in social environments. The fact that the feelings and opinions of an individual on himself/herself affect his/her body image has been also seen in the studies of Heinberg et al (2007) [20] and Taşkın (2009) [21].
- Adults like their hands and faces and they complain about their belly and hips in particular. The majority of adolescents don't agree on the parts they like or don't like on their bodies.
- The majority of the participants in both groups state that their feeling for mirrors were good. It was stated in the study conducted by Cooper, Fairburn and Hawker (2003) [22] that behaviours such as examining their bodies in front of the mirror, measuring specific parts of their bodies again and again, squeezing some parts of their bodies with their fingers or controlling their body weight by weighting themselves all the time are seen in people, who were diagnosed with obesity.
- Adults enjoy going shopping; whereas adolescents don't enjoy. Accordingly, it can be said that obese adults are comfortable in their own skin and they enjoy shopping because they do not avoid their own body images for being overweight. In contradiction to the result of the study, Cooper, Fairburn and Hawker (2003) [22] stated that because of the negative body image obese individuals have, they tend to avoid going shopping for clothes, doing some sports such as playing tennis or swimming, some physical activities such as dancing, having sexual intercourse or attending social meetings and being weighted.
- Both groups of participants prefer wearing loose clothes. Reas, Grilo, Masheb and Terence Wilson (2005) [23] stated that obese individuals prefer to wear loose clothes, they show behaviours such as hiding their bodies and therefore these behaviours of them detract them away from their fears to gain weight. Parallel to the results of the study, Çimen Yavuz and Çimen Bölgen (2016) [24] stated that obese individuals prefer to wear less revealing outfits when compared with thin individuals. Likewise, Reas et al (2005) [23] expressed that obese individuals avoid wearing clothes that reveal their body images. The reason for obese adolescents and adults for wearing loose outfits may be resourced from cognitive thought that obese individuals have such as "I should hide my hips; otherwise everyone will see how big they are," as it is stated by Cooper, Fairburn and Hawker (2003) [22].
- Both groups that participated in the study said that they were sad and regretted for not being able to wear the clothes, which they really want to wear but that don't fit their bodies because of their weight. In accordance with Çivitçi and Harmankaya (2012) [25] 90.4% of obese children and adolescents state that they cannot find clothes that fit their bodies and 84.6% could not find clothes according to their wishes. It is also in line with the results of this study.

The following recommendations have been given by the researchers in this study:

- In order to gain healthy nutrition habits, conference and seminar studies should be given by health experts for the families of children that are diagnosed with obesity.
- Applied nutrition training should be provided for students to make them gain healthy nutrition habits and to increase their quality of life within the scope of counselling services at secondary schools.
- Young people, their families and experts should gain awareness on this subject so as to determine the reasons that cause obesity and to take preventive measures.
- Before entering obesity limit, individuals should attend trainings to arrange and protect their life styles. Effects of metabolic and social problems that are related with obesity should be

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decreased and necessary help should be taken from mass media such as media, TV and internet.

Without doubt, making contribution for individuals to gain healthy nutrition habits starting from childhood would support the development of healthy personality in addition to body health.

CONFLICT OF INTEREST
There is no conflict of interest.

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ARTICLE

EXAMINING THE RELATIONS BETWEEN REVENGE, FORGIVENESS AND GUILT LEVELS OF HIGH SCHOOL STUDENTS

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ABSTRACT

Mankind passes through different phases within the lifeline between birth and death. When we look at the physical structure, there are different characteristics of each phase according to the age of the individual. When the life cycle starting with the birth, is examined, humans pass through five different phases, namely childhood, youth, first adulthood, middle age and old age. This research worked on adolescents which has known as the most stormiest period of lifecycle. Taking into consideration that the aim of the study are to evaluate the desire of adolescents for revenge, their feelings of forgiveness and the levels of guilty which are one of the most intense emotions in puberty, the results of research and the aim of the study tried to associate with each other. The purpose of the study is to examine the relationships between high school students' feelings of revenge, forgiveness, and guilt and to know what the concept of revenge, the concept of forgiveness and the concept of guilt are in line with the outcomes. To reveal what these concepts mean for the students, what situations they want to take revenge, what situations they want to forgive and feel guilty. The subject to be investigated is a matter that has not been studied before in the Turkish Republic of Northern Cyprus. At the same time, this study has an important place because the concepts of revenge and forgiveness are not worked together before in the same study and the study group is different.

KEY WORDS
Life Periods, Youth, Vengeance,

INTRODUCTION

Adolescence is the accumulation of sweet dreams, passions, tight friendships, and many moments in which first love is experienced and difficult to forget. The period of youth, known as the period in which forward-looking attempts have been made and efforts to build up their identity have been experienced, is a turbulent period.

Young people are individuals who have not recognized the bad behavior, are early trusting, able to connect early, have high goals and dreams, and therefore have not learned the limiting effect of circumstances. The fact that young feel mixed feelings of revenge, forgiveness, and guilt is, therefore, foreseeing to do research and interpretation. In line with these explanations; we can defend and explain that the concepts of revenge, forgiveness, and guilt can be more emphasized.

First of all, it is necessary to look at what the word "revenge" is. The word "revenge", in its most clear and general definition, is a concept that is attempted to be described as 'a desire or act to respond with bad thoughts or behaviors in order to punish bad behavior, movement or promise'. However, a few of the definitions of "forgiveness" can be exemplified as follows; " Forgiveness is to forgive the act or wrong that is done ", " To forgive and forget is the revenge of good people " and " Only the courageous knows what the forgiveness is, and there is no forgiveness in the nature of the cowards ".

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Crime, with the sociological phenomenon that humanity has faced since its existence, has been subject to many branches of science. Today it has become an important social problem. Just as a society without crime cannot be considered, crime cannot be fully excluded from society. In the sense of guilt, the individual feels sinful, blaming themselves for thinking they are doing something wrong, cannot forgive themselves, cannot leave their experience in their past and cannot continue to live.

Adolescence, one of the developmental periods, is depicted as a 'storm period'; it is an important phase between childhood, adulthood and old age. Individuals go through different developmental periods on the dimension of life that develops from childhood to old age. During these periods, they show different psychological, physiological and socio-cultural characteristics with each other.

Adolescents' desire for revenge is perceived differently than children and adults. According to Deniz [1] the relationship of the adolescent with his parents is an effective factor on school success. An adolescent who develops in a tolerant, supportive and understanding family model is expected to have a positive impact on school success. In the opposite family model, the adolescent appears to be in the form of personalities that are constantly exposed to criticism, do not care about their emotions, are not shared with family decisions, and are thought to be worthless. Therefore, they are not expected to be successful in school; the levels of desire for revenge can be high [1].

The word ‘‘revenge’’, in the most general sense and in the open-ended notion, is a concept that has been tried to be described as ‘‘a desire or an act to respond with bad thoughts or behaviors in order to punish bad behavior, movement or promise’’.

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Revenge is defined in up-to-date dictionary as "-the general name of the actions to take out the pain of an evil done by doing evil, the worst feeling of the universe, the general name of the actions that are thought to be done to harm the person whom we think making a mistake- ".

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Unlike forgiveness, or even in contrast, the emotion developed in the individual may be a sense of revenge. In contrast, McCullough, Fincham and Tsang [2] suggested that when individuals choose to forgive, their well-being increases, when they choose to feel revenge, their well-being decreases. According to Stuckless and Goranson, avengers are exposed to a number of illogical behaviors, which can result in devastating consequences. Some individuals even exaggerate this situation, reducing their trust, integrity and social cohesion because of the high level of revenge sentiment [3].

On the concept of revenge, researchers have made many definitions. For example, according to Bacon [4], revenge is that an individual engages in brutal sentiments by exhibiting aggressive behavior, according to Elster [5], revenge is useless and expressed in anger; According to Kim and Smith [6], the person facing the revenge is causing both the emotional and behavioral harm to the person facing him and making him feel bad.

Some researchers have dealt with the concept of revenge from the moral point of view. They have described revenge, holding the sense of justice present in individuals in the foreground, as behaviors aimed at putting an end to injustice in the face of injustice [7].

According to Axelrold [8], the desire to seek revenge is neither condemned nor overly tolerated by the social environment; therefore, revenge is regarded as an intense response to the injustice of the person who has suffered the injustice.

As you can see, there are researchers who argue that the concept of revenge is both positive and negative. According to Tripp and colleagues [9], the concept of revenge or the desire to take revenge must be judged morally so that it can be judged as a positive (good/constructive) and a negative mood (bad/destructive).

Therefore, according to McCullough revenge is morally worthy when the aggressive person becomes aware of his mistake and chooses to remedy them, once an individual who has suffered an injustice, i.e. the avenger has received his revenge. Revenge is evaluated as negative in terms of morality, in the event that an avenger harms a third person who is not interested in the matter while taking revenge. In addition to the positive or negative evaluation of revenge in the moral dimension, it is stated that thinking of taking revenge have the characteristic of causing psychological health to deteriorate [10].

The process of revenge can be explained together with the deterioration of psychological health in individuals. In the process of revenge, individuals have many complex feelings. According to Barber, Maltby and Macaskill, the individual who decides to take revenge on the other side is musing about the opposite until to the revenge decision, and is beginning to make plans in detail [11].

The detailed thoughts on revenge or the person are increasing individual's anxieties and angering them with an intense struggle. Bushman suggested that it is an indispensable attitude for the avenger to focus on the person to be revenged and to concentrate only on that subject [12].

The individual who has survived the thinking and planning phases to get revenge wants to get his revenge right away. Therefore, after a long thought and planning phase, the avenger cannot adjust the dose of the reaction and can exhibit destructive behaviors that are highly damaging to the opposite person [13]. The avenger who has come to the last stage and has taken his revenge, is get rid of from the anger and stress, and emerges as an individual who has become the last of his worries. According to Goldberg the avenger has thus also abandoned his negative feelings and has also fulfilled a defense duty against feelings of hopelessness and powerlessness [14].

There are notions similar to the concept of revenge in the literature. When examining the field related to revenge, there are concepts such as hostility, punishment, retaliation. Although these concepts are analogous to each other, their meanings are different. According to Kaufman [15], revenge is a personal behavior and a decision taken after the suffering of the individual.

Stuckless and Goranson suggested that the revenge can be explained as a reaction to an aggressive individual to change his deep thoughts of aggression and frustration. The concept of revenge is very similar to the concept of retaliation. As a matter of fact, the purpose of the retaliation is deterrence. Retaliation involves giving a quick response to the individual who harms. In revenge, there is a process to include deep thoughts about what happens to the injured individual after the incident [3].

Another concept, the concept of hostility, is confused with the concept of revenge. According to Barefoot, the concept of hostility includes both cognitive, affective, and behavioral tendencies, and it is based on other insecurities. The desire to harm in hostility appears cognitively, or it is expected that the damage done to the individual will be seen by others, and the most basic feature that distinguishes revenge from hostility is explained in this way [16].

Vengeance depicts direct aggressive behavior toward the individual who constitutes the perception of injustice. In the concept of hostility, negative thinking and aggression are based on insecurity and generally towards other individuals [17].

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According to Cota, Woody and Bell, among the reasons that lead individuals to take revenge are; loss of self-identity, the desire to rebalance inequality, the destruction of equality, the attainment of lost power, and the unwillingness to be exposed again to unfair behavior [18].

If we are going to address them one by one, the most important reason for revenge is the damage to self-identity. According to Nasr and Morrin, self-identity comes from the individual's own personality within the social environment and culture of the individual. Negative movements in the social environment can harm individuals' self-identities, so when an individual is faced with an injustice, he sees it as a movement made to his self-identity. The damage of self-identity is psychologically disturbing to the individual. As a result, individuals can go into a psychological quest for revenge both to regain their suffering and to correct their self-identity in a positive way [19].

One of the other reasons for the desire to revenge can be explained as thinking that the equilibrium is broken immediately after an injustice. Individuals, constantly in search of equality, think that if their equality deteriorates, they will suffer harm both psychologically, physically and emotionally if they are exposed to injustice. They, therefore, consider that they may also experience financial losses [20].

Individuals who have suffered injustice in these situations are able to feel themselves at a low level against the people who are injurious to themselves. The individual tries to rearrange the equilibrium by trying to carry it up from the level it sees low. He may also seek revenge to ensure equity equilibrium. We can also understand them from daily idioms. For example, Expressions such as “an eye for an eye” are often confronted in the form of words spoken by individuals seeking revenge.

Şahin said when we look at the origin of the concept of “forgiveness” (affetmek in Turkish), it is seen that the root is Arabic and “afeve” in its root [21]. The word “forgiveness” (af in Turkish) means disease, trouble, and misfortune. In this context, according to Kasapoğlu, it has been stated that before the forgiveness takes place, the individual will move away from some psychological disorders and tensions after forgiveness [22].

Forgiveness means in the sense of 'to forgive', 'to meet with tolerance', 'to give fair quarter' and 'to allow one's work to be taken out of responsibility' in the Contemporary Turkish Dictionary.
When we look at the concept of forgiveness in its most general sense, it can be mentioned that it is necessary to give up feelings such as fury, anger, and revenge [23]. According to Alpay, the act of forgiveness is independent of the individual who hurt [24].

Sigmund Freud, who is regarded as the father of psychoanalysis, has been implicit in the concept of forgiveness in his work on forgiveness, although he has not been able to explain the issue of forgiveness. That is why it is thought that the concept of forgiveness can be difficult to explain in psychoanalysis [25].

The concept of crime is defined as behavior that destroys the feelings that every individual in society has [26]. Crime is defined as the totality of behaviors that are in bad behavior towards the public, which break the moral laws in society and disrupt the rule of law system. However, every crime defined in criminal law is deemed to be an actual penalty [27].

Crime is defined by Turkish Language Association as "unlawful acts that are seen as unjust in a society, prohibited by written or unregistered laws, or depicted in a statutory law and sanctioned" [28].

According to Uzun, crime and committing a crime is a phenomenon that must be tackled in every direction. In order to be able to look in the right direction, it is necessary to have a general opinion about the crime [29].

Criminality is a response to an error and in addition the emotional state that a person experiences when he or she hurts another person [30].

According to Tak, there are different kinds of feelings of guilt depending on the situations that are experienced [31]. If we give an example, the guilt of something done can represent the first order. There is a sense of guilt that is felt because of hurting someone else physically or psychologically or breaking their moral code.

The sense of guilt begins to blame himself as "I should have helped more" while directing the feeling of liveliness to help behavior. The sense of guilt is the guilt feeling that is felt because the emotional form known as the last variant is made better than the other is. Rather, the loss of an individual's family, friends, or neighbors is the feeling that he or she is feeling healthy and alive if he or she becomes ill. This variant of guilt is described as a negative feeling that harms the mental health of the individual [31].

Examining the youth delinquency in the world; It is seen that the youth delinquency in Russia is 3/4 more than the adult delinquency, and the age of committing crime varies between 14 and 17 years of age. It has been argued that the majority of the population in Africa is struggling with poverty and the youth delinquency associated with it are increasing and that the young people in Latin America are involved in crimes due to the economic problems.

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It seems that the Japanese youth are inclined to have a tendency to violence, and accordingly, the youth delinquency increases. Lastly, when looking at industrialized countries, the constantly increasing consumption seems to have led to new adolescent crimes, such as theft, bullying, or the forcible seizure of property [32].

Juvenile delinquency can be described as an attitude and behavioral disorder that many situations identify and emerge as a result of all negative factors, including mental, spiritual, familial and social [33].

Though seemingly small crimes are temporarily welcomed to the teenager, a group of criminals can show a permanent crime tendency starting in childhood [34]. These children exhibit unhealthy individual development, with more severe and violent crimes committed in adulthood. Young people who tend to crime are opposed to all kinds of authority and show undesirable behavior [35].

One common thought among all people living in the world is that children and young people should be the determinants of the future of society. In all societies, meeting the basic needs of children and adolescents, earning the trust of themselves and their environment, and most importantly, the education factor is of utmost importance.

Criminal liability accepted to mention juvenile and youth delinquency varies according to age; 15 for the UNESCO, 12 for the UN, 14 for the UK-Germany-Italy, 13 for France and 16-17 for the United States. According to the Turkish Criminal Code numbered 5237, the age of criminal responsibility is 12 years in Turkey.

When the Turkish Penal Code is examined in the Turkish Law System, children and adolescents aged between 12 and 15 are in a state of partial criminal liability [36].

MATERIALS AND METHODS

The model of the study

This research is a descriptive research aimed at developing a valid and reliable instrument for measuring the attitudes of high school students to take revenge and to determine their attitudes towards revenge, forgiveness, and guilt. The survey model was used in the study.

The population and sampling of the research

The universe of the research is composed of high school students in official general high schools and vocational high schools attached to the Department of Secondary Education of Ministry of National Education of the Turkish Republic of Northern Cyprus (TRNC).

The stratified random sampling method was used to select the sample to represent the working population in the study, as it would be difficult to reach all of the population in terms of time, cost and control. The students who are educated in the vocational high schools affiliated to Vocational Technical Education Department and general high schools affiliated to the Department of Secondary Education of the TRNC are stratified according to the districts and the number of the samples proportional to the layer weights is calculated. Then students in the strata were selected by simple random sampling method. When the number of samples is determined, the population sampling formula is used.

Findings and comments

Table 1: Comparison of scores of revenge, Heartland Forgiveness, and Guilt-Shame Scale according to gender of students

Scales	Gender	n	$\bar{x}$	s	t	p
Revenge	Female	319	16,71	5,60	-5,910	0,000*
	Male	270	19,38	5,32		
Vengeance	Female	319	15,25	4,55	-3,788	0,000*
	Male	270	16,66	4,42		
Emotion-State	Female	319	9,00	2,93	-1,199	0,231
	Male	270	9,28	2,66		
Forgiveness	Female	319	11,15	3,66	-2,330	0,020*
	Male	270	11,84	3,48		

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Self-Perception	Female	319	9,82	2,71	1,038	0,300
	Male	270	9,59	2,64		
Revenge Scale Total	Female	319	61,92	12,58	-4,897	0,000*
	Male	270	66,74	11,06		
Self-Forgiveness	Female	319	25,84	6,69	1,361	0,174
	Male	270	25,07	6,88		
Forgiveness of Others	Female	319	22,71	5,66	-1,767	0,078
	Male	270	23,51	5,34		
Forgiveness of the Situation	Female	319	25,29	6,00	2,876	0,004*
	Male	270	23,87	5,98		
Forgiveness Scale Total	Female	319	73,83	14,08	1,232	0,218
	Male	270	72,45	12,91		
Guilt	Female	319	46,16	9,00	8,950	0,000*
	Male	270	39,66	8,52		
Shame	Female	319	42,31	8,35	7,147	0,000*
	Male	270	37,53	7,78		
Guilt-Shame Scale Total	Female	319	88,47	15,44	9,063	0,000*
	Male	270	77,19	14,59		

*p<0,05

[Table 1] shows the results of the independent sample t-test conducted to compare scores of revenge scale, Heartland Forgiveness Scale, and Guilt-Shame Scale according to the gender of the students included in the survey.

When [Table 1] was examined, it was found that there was a statistically significant difference between the scores of the revenge scale in total and its subscales; revenge, vengeance and forgiveness subscales based on their genders (p<0,05). Male students' scores on revenge scale in total and its subscales; revenge, vengeance and forgiveness subscales were significantly higher than female students were. It was determined that there was not a statistically significant difference between the scores of emotion-state and self-perception subscales of revenge scale according to the gender of the students (p>0,05).

It was found that there was no statistically significant difference between the scores of the Heartland forgiveness scale according to the gender of the students included in the survey and the scores they received from the self-forgiveness and forgiveness subscales (p>0,05). It was found that the difference between the scores of students' forgiveness subscale on the Heartland forgiveness scale according to their gender was statistically significant (p<0,05). Female students' scores on the status of forgiveness subscale were higher than male students.

It was determined that there was a statistically significant difference between the scores of the guilty-shame scale according to the gender of the students and the scores of the guilt and shame subscales included (p<0,05). Male students were found to have lower scores on the total scale of guilt and shame and its sub-scales than female students.

Table 2: Comparison of scores of Revenge Scale, Heartland Forgiveness Scale, and Guilt-Shame Scale according to students' disciplinary punishment status at school

Scales	disciplinary punishment	n	$\bar{x}$	s	t	p
Revenge	Received	64	19,77	4,71	2,775	0,006*
	Not Received	525	17,71	5,70		
Vengeance	Received	64	17,97	4,52	3,916	0,000*
	Not Received	525	15,64	4,49		
Emotion-State	Received	64	9,47	2,97	1,020	0,308

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	Not Received	525	9,09	2,79		
Forgiveness	Received	64	12,31	3,62	2,008	0,045*
	Not Received	525	11,36	3,58		
Perception of Self	Received	64	10,11	2,82	1,265	0,206
	Not Received	525	9,66	2,66		
Revenge Scale Total	Received	64	69,63	10,82	3,883	0,000*
	Not Received	525	63,46	12,13		
Self-Forgiveness	Received	64	24,88	6,60	-0,764	0,445
	Not Received	525	25,56	6,81		
Forgiveness of Others	Received	64	24,20	5,96	1,734	0,083
	Not Received	525	22,94	5,46		
Forgiveness of the Situation	Received	64	24,36	6,47	-0,392	0,695
	Not Received	525	24,67	5,98		
Forgiveness Scale Total	Received	64	73,44	14,14	0,148	0,882
	Not Received	525	73,17	13,51		
Guilt	Received	64	40,69	7,96	-2,265	0,024*
	Not Received	525	43,48	9,47		
Shame	Received	64	38,95	8,07	-1,174	0,241
	Not Received	525	40,26	8,47		
Guilt-Shame Scale Total	Received	64	79,64	14,00	-1,935	0,053
	Not Received	525	83,75	16,25		

*p<0,05

[Table 2] shows the results of the independent sample t-test conducted to compare scores of the Revenge Scale, Heartland Forgiveness Scale, and Guilt-Shame Scale according to the level of disciplinary punishment of the students included in the study.

When [Table 2] was examined, it was found that there was a statistically significant difference between the scores of the revenge, vengeance, and forgiveness subscales according to the students receiving the disciplinary punishment in the school (p<0,05). Students who received disciplinary punishment in school were significantly higher than those who did not receive disciplinary punishment, in terms of revenge, vengeance, and forgiveness subscales. It was determined that there was no statistically significant difference between the scores of the self-perception and emotion-state subscales of the revenge scale according to the students' disciplinary punishments (p>0,05).

It was found that there was no statistically significant difference between the scores of the Heartland Forgiveness Scale and its subscales; self-forgiveness, forgiveness of others and forgiveness of situation subscales, depending on the status of students receiving any disciplinary punishment at school (p>0,05). The scale scores of students who receive disciplinary punishment in the school and do not receive it are similar.

It was found that there was no statistically significant difference between the scores of the guilt-shame scale and its subscales based on whether the students received or not received disciplinary punishment at school (p>0,05). It was determined that the difference between the scores of the guilt subscale according to the status of students receiving disciplinary punishment at school was statistically significant (p<0,05). It was determined that students who received any disciplinary punishment in school had lower scores on the guilt sub-dimension than the other students.

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Table 3: Comparison of scores of Revenge scale, Heartland Forgiveness scale, and Guilt-Shame scale according to students' previous revenge status

Scales	Revenge Status	n	$\bar{x}$	s	t	p
Revenge	Received	310	19,12	5,49	5,543	0,000*
	Not Received	279	16,61	5,50		
Vengeance	Received	310	17,27	4,27	8,199	0,000*
	Not Received	279	14,36	4,35		
Emotion-State	Received	310	9,59	2,87	4,246	0,000*
	Not Received	279	8,62	2,65		
Forgiveness	Received	310	12,41	3,22	7,008	0,000*
	Not Received	279	10,41	3,69		
Perception of Self	Received	310	9,91	2,73	1,945	0,052
	Not Received	279	9,48	2,61		
Revenge Scale Total	Received	310	68,31	11,01	9,450	0,000*
	Not Received	279	59,48	11,65		
Self-Forgiveness	Received	310	25,58	6,81	0,352	0,725
	Not Received	279	25,38	6,77		
Forgiveness of Others	Received	310	23,51	5,48	2,004	0,045*
	Not Received	279	22,59	5,54		
Forgiveness of the Situation	Received	310	24,25	6,31	-1,644	0,101
	Not Received	279	25,07	5,68		
Forgiveness Scale Total	Received	310	73,34	13,57	0,261	0,794
	Not Received	279	73,05	13,59		
Guilt	Received	310	41,60	9,27	-4,387	0,000*
	Not Received	279	44,94	9,15		
Shame	Received	310	39,15	8,28	-2,959	0,003*
	Not Received	279	41,20	8,48		
Guilt-Shame Scale Total	Received	310	80,75	15,67	-4,114	0,000*
	Not Received	279	86,13	16,05		

*p<0,05

[Table 3] shows the results of the independent sample t-tests conducted to compare the scores of Revenge Scale, Heartland Forgiveness Scale, and Guilt-Shame Scale according to the revenge status of students who were included in the study.

When [Table 3] was examined, it was found that the difference between the scores of revenge scale in total and vengeance, emotion-state and forgiveness subscales was statistically significant according to the previous revenge status of the students (p<0,05). The scores of revenge scale in total and revenge, vengeance, emotional-state and forgiveness subscales for the students who stated that they had previously received revenge were found to be higher than from the students who did not take revenge before. It was determined that there was no statistically significant difference between the scores of self-perception subscale according to the previous revenge status of the students (p>0,05).

There was no statistically significant difference between the total scores of the forgiveness scale and the scores of self-forgiveness and forgiveness of the situation subscales, according to the previous revenge status of the students (p>0,05). However, it was found that the difference between the points that they have taken from the sub-scale of forgiveness of others is statistically significant. (p<0,05). It has been seen that students who had previously taken revenge had a lower score than those who did not take revenge before in the sub-scales of forgiveness of others.

It was found that the difference between the total scores of guilt-shame scale and the scores of guilt and shame subscales were found to be statistically significant according to the students' previous revenge status (p<0,05). Those students who stated that they had received revenge previously were found to have lower scores from both the total scales and subscales than the students who stated that they did not get revenge before.

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Table 4: Comparison of Revenge Scale, Heartland Forgiveness Scale, and Guilt-Shame Scale scores according to the strong feelings of forgiveness of the students

Scales	Feelings of Forgiveness	n	$\bar{x}$	s	t	p
Revenge	Strong	428	17,47	5,56	-3,260	0,001*
	Not Strong	161	19,16	5,66		
Vengeance	Strong	428	15,30	4,45	-5,309	0,000*
	Not Strong	161	17,48	4,44		
Emotion-State	Strong	428	8,99	2,83	-1,978	0,048*
	Not Strong	161	9,50	2,73		
Forgiveness	Strong	428	11,04	3,59	-4,698	0,000*
	Not Strong	161	12,58	3,37		
Perception of Self	Strong	428	9,28	2,52	-6,641	0,000*
	Not Strong	161	10,86	2,75		
Revenge Scale Total	Strong	428	62,08	11,89	-6,945	0,000*
	Not Strong	161	69,58	11,09		
Self-Forgiveness	Strong	428	25,82	6,65	1,946	0,052
	Not Strong	161	24,60	7,06		
Forgiveness of Others	Strong	428	23,11	5,36	0,251	0,802
	Not Strong	161	22,98	5,96		
Forgiveness of the Situation	Strong	428	24,63	5,99	-0,065	0,948
	Not Strong	161	24,66	6,15		
Forgiveness Scale Total	Strong	428	73,56	13,79	1,044	0,297
	Not Strong	161	72,25	12,94		
Guilt	Strong	428	43,79	9,53	2,592	0,010*
	Not Strong	161	41,56	8,69		
Shame	Strong	428	40,43	8,29	1,464	0,144
	Not Strong	161	39,29	8,76		
Guilt-Shame Scale Total	Strong	428	84,22	16,15	2,278	0,023*
	Not Strong	161	80,85	15,62		

*p<0,05

[Table 4] shows the results of the independent sample t-test for the comparison of scores of Revenge Scale, Heartland Forgiveness Scale, and Guilt-Shame Scale according to the strength of the forgiveness feelings of the students participating in the research.

When [Table 4] is examined, it was found that the difference between the total scores of the revenge scale and the scores of all the subscales of revenge was statistically significant, based on whether the students had a strong emotional forgiveness feeling (p<0,05). Those students who indicated strong emotional forgiveness feelings were scored lower than the students who indicated that they did not have strong feelings of forgiveness from the overall revenge scale and all subscales of revenge.

It was found that there was no statistically significant difference between the total scores of the forgiveness scale and the scores of self-forgiveness, forgiveness of others and forgiveness of the situation subscales, based on whether the students had strong emotional forgiveness feelings (p>0,05).

It was found that the difference between the overall guilt-shame scale and the score of the guilt subscale was statistically significant, according to the students' strong emotional forgiveness feelings (p<0,05).

Those students who indicated that they had strong feelings of forgiveness had a higher score on the overall revenge scale and in the guilt subscale than students who indicated that, their feelings of forgiveness were not strong.

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Table 5: Comparison of the scores of Revenge Scale, Heartland Forgiveness Scale, and Guilt-Shame Scale based on whether the students had previously felt guilty

Scales	Previous feel of Guilty	n	$\bar{x}$	s	t	p
Revenge	Yes	306	17,56	5,57	-1,661	0,097
	No	283	18,33	5,68		
Vengeance	Yes	306	16,00	4,58	0,593	0,553
	No	283	15,78	4,51		
Emotion-State	Yes	306	9,23	2,83	0,851	0,395
	No	283	9,03	2,79		
Forgiveness	Yes	306	11,69	3,60	1,613	0,107
	No	283	11,22	3,57		
Perception of Self	Yes	306	9,49	2,62	-2,105	0,036*
	No	283	9,95	2,72		
Revenge Scale Total	Yes	306	63,97	12,12	-0,336	0,737
	No	283	64,30	12,17		
Self-Forgiveness	Yes	306	26,44	6,45	3,572	0,000*
	No	283	24,46	6,99		
Forgiveness of Others	Yes	306	23,26	5,22	0,853	0,394
	No	283	22,87	5,84		
Forgiveness of the Situation	Yes	306	25,16	5,81	2,205	0,028*
	No	283	24,07	6,21		
Forgiveness Scale Total	Yes	306	74,86	12,90	3,115	0,002*
	No	283	71,40	14,06		
Guilt	Yes	306	44,21	9,29	2,783	0,006*
	No	283	42,07	9,32		
Shame	Yes	306	40,73	8,21	1,824	0,069
	No	283	39,46	8,64		
Guilt-Shame Scale Total	Yes	306	84,93	15,70	2,580	0,010*
	No	283	81,53	16,29		

*p<0,05

[Table 5] shows the results of independent sample t-test on the comparison of the scores of Revenge Scale, Heartland Forgiveness Scale, and Guilt-Shame Scale according to students' previous experience of guilt.

It was found that the difference between the scores of the overall revenge scale, revenge, vengeance, emotion-state and forgiveness subscales was not statistically significant according to the fact that the students who had taken the survey had any previous guilt ($p<0,05$). It was determined that the difference between the scores of the self-perception subscale was statistically significant according to the fact that the students had previously been guilty ($p<0,05$). The scores of the self-perception sub-scale of students who had previously experienced guilt were found to be lower.

It was determined that the difference between the general forgiveness scale and the points that they have taken from the self-forgiveness and status forgiveness subscales included in the scale were statistically significant, in the case of students who had previously been guilty ($p<0,05$). It was determined that the students who had any previous incidents of guilt had higher scores on the overall scale of forgiveness and the self-forgiveness and the forgiveness of the situation subscales than the scores of students who were not guilty. It has been found that the difference on the scores of the students about the points they have taken from the forgiveness of others subscale based on their previous experience of guilt is not statistically significant ($p>0,05$).

The difference between the general guilt-shame scale and the guilt subscale scores was found to be statistically significant according to their previous experience of guilt ($p<0,05$). Students with any previous

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experience of guilt are scored higher on the overall scale and guilt subscale than on students without any experience of guilt.

DISCUSSION AND CONCLUSION

In this section, the results of the research are evaluated and the interpretation of the relations of high school students with revenge, forgiveness and guilt levels are compared with the literature results. Suggestions have been made in the light of the results.

Looking at the revenge scale in general, it appears that men are more likely to seek revenge than women are. Among the reasons; the patriarchy of our society, the growth of women under the pressure of society, the differences in the ways of gender development, the difficulty of women expressing themselves and the public view that men are angrier than women. The survey conducted by Satıcı and his colleagues revealed that the revenge of college students was the result of the anger memories and the post-anger thoughts [37].

When we look at the Heartland Forgiveness scale in general, the levels of forgiveness of self and forgiveness of women and men are similar; the level of forgiveness of the situation is different. This can be interpreted as the different perception of men and women. In this context, according to Cheavens and colleagues, the connection of affirmation to interpersonal relations seems to be handled considerably; it is argued that forgiveness is related to hope, empathy and self-acceptance [38]. It is different from everybody's way of perception, interpretation, cognition as it is in every subject. In the same way, in the case of forgiveness, everyone has different ways of forgiving events.

In general, the scale of the guilt-shame scale shows that women are more guilty and shameful than men. Likewise, in the work of Lutwak and Ferrari, it turns out that men's sense of shame is related to self-critical cognition and guilt is related to perfectionism; it has been found that the feeling of shame in women is loaded with both self-critical cognition and perfectionism. It was emphasized that women in the survey had a significant sense of guilt and shame compared to men [39]. It can be thought that the consequences of this outcome are that women may feel guilty because they live in their own ways of expressing themselves and cannot fully express it.

When students were assessed for their level of revenge, forgiveness, and guilt by taking disciplinary action, it was concluded that students receiving disciplinary punishment across the revenge scale were more likely to seek revenge, more vengeance, and more vindictive. Nevertheless, students who did not receive disciplinary punishment had a higher guilt feeling; while those who received disciplinary punishment were found to have a lower level of guilt. Students who receive disciplinary penalty have increased anger and more revenge as they receive punishment among the reasons for their desire for revenge. High school students are able to concentrate their feelings of revenge more intensely in their own selves when they receive every disciplinary punishment, giving them cyclical reactions, becoming angry and aggressive in the same way. In the study by Webb and colleagues, it has been determined that all dimensions of aggression, including verbal and physical aggression, hostility and anger are negatively related to forgiveness but positively related to revenge [40].

When the situation of avenging is examined, it has been seen that the students who have avenged from someone before having a high level of revenge desire, desire for revenge and emotional situations than the students who have not avenged before. While the levels of forgiveness of those who have never received revenge from others have been higher; looking at the scale in general, it is concluded that the avengers are more desirous of revenge. The reason for this is thought to be continuity and habit. The feeling of reprisal in the students can be regarded as an intensified and increasing desire as to get revenge. Those who have not received revenge before cannot react because they do not feel such feelings because they have never experienced the desire for revenge.

On the other hand, revenge from others has been seen because of the fact that they have forgiven others rather than forgiven of self and the situation. Forgiveness of others can be thought of as easier than forgiveness of oneself. According to Green et al., Who conducted a similar study, there is a positive relationship between forgiveness and physical health [41]. In addition, it was seen that those who had previously avenged felt less guilt and shame than those who did not. Therefore, those who do not take revenge may feel guiltier in some cases. In this context, it can be concluded that avengers can continue to take revenge without feeling guilty.

Given the strong emotional forgiveness feelings of the students, these five sub-dimensions were at a high level because of their lack of emotional forgiveness feelings in the revenge scale, revenge, and emotion-state, forgiveness, and self-perception subscales. Therefore, for those who are not strong in seeking revenge, their forgiveness has been found to be stronger. Since there is no desire for revenge, it will be easier for them to forgive themselves, others and the situation they are in. The strong emotions of forgiveness have also led to increased sentiments of guilt.

The increase in the sense of guilt does not mean that the wishes of revenge will not disappear; On the contrary, it means that both the desire for revenge and the feeling of guilt are at a high level. In a similar

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study, most of the women who were subjected to violence expressed their forgiving attitude and at the same time, they felt guilty although they were subject to violence [42].

According to the fact that there is any event in which students are guilty before; the level of the self-perception subscale was found to be higher than the other subscales of the students who did not have any guilt before. People with a sense of guilt are at a higher level to forgive themselves and their situation than those who are not guilty. Therefore, those with high feelings of guilt can be called those who have difficulty forgiving themselves. When the students who felt or not-felt guilty before were generally examined, the students who experienced guilt before has more guilt feeling according to the guilt-shame scale.

However, students who are guilty of any topic may end up not repeating the same thing in the same way. On the guilty issue, it can be concluded that if the individual continues to feel the sense of guilt, the individual desire for revenge may be more intense but on the other hand, the forgiveness level may be less.

When the level of revenge, forgiveness, and guilt of high school students is examined, the results of the research overlap with those in the literature. Preventive seminars to high school students may reduce the need for revenge and violence; instead, they can be trained as individuals who are loveful, compassionate and tolerant. Therefore, students who will be trained in high school will experience less guilt because they will not have much motivation to take revenge in the years to come. Every individual has little desire to get revenge, and the students will be able to reduce their desire for revenge by education and training, which will increase the feelings of forgiveness; they are also thought to be able to reduce the issues they feel guilty the most.

CONFLICT OF INTEREST
There is no conflict of interest.

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ARTICLE

STUDENTS' MISBEHAVIOUR IN SECONDARY SCHOOLS DEPENDING ON IMMIGRATION

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ABSTRACT

The purpose of this study is to establish the immigrant students' misbehaviors faced mostly by school psychological counselors working in secondary schools. The factors lead to emerging of the immigrant students misbehaviors in the school environment was investigated. A qualitative research approach was used in this study. The study group consists of school counselors working in the Turkish Republic of Northern Cyprus secondary schools and high schools. The study group consists of 27 school psychological counselors. In the formation of the study group, deviant sampling method was used from purposive sampling methods. In this study, the data were collected by Personal Information Form and Students' Misbehaviors Interview Form that were prepared by researcher. Personal Information Form was also prepared to identify the study group. Students' Misbehaviors Interview Form was consists of two open ended questions to determine immigrant students misbehaviors that school psychological counselors have encountered mostly and the factors leading to the misbehaviors. The collected data were analyzed by content analysis.

KEY WORDS
Immigration, students' misbehaviours, school psychological counselors.

INTRODUCTION

Migration is classified into domestic, foreign, forced and voluntary migration, and brain drain [1]. Migration involves individuals moving to other cities in order to work, obtain money, and continue their lives in another location due to economic, social and political reasons [2][3]. Individuals who migrate from rural to urban areas, from the eastern to western regions, from small towns to big cities, from undeveloped regions or countries to developed regions or countries, they may not understand their new environment and may have an adaptation problem because they have no equipment's to adapt such as education, specialization, job division and accommodation opportunities [4]. Behavioral disorders are based on the adaptation problem for children operating under difficult conditions [2]. Behavioral disorders can cause student misbehavior in schools.

Students misbehaviors are actions that cause disturbance in the class environment, disturb other students, interfere with class activities, adversely affect the learning of students, and are contrary to the rules of the school and disturb school order [5-7]. Every child has experienced misbehavior in the classroom, but many out-of-school reasons cause unwanted negative behaviors on the part of migrant families [8].

When the relevant literature is examined, misbehaviors are behaviors that are seen as inappropriate or bad in terms of the emerging conditions or environments [9]. Students misbehaviors encountered generally in schools are specified as inappropriate behaviors, damaging classroom materials, actions against the teachers, borrowing belongings of their mates without permission, and fighting [10]. Students misbehaviors in the classroom hinder students from listening to lessons and also disturbs educational purposes, plans and activities [5][11].

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It can be seen that studies conducted to determine student misbehavior includes mainly the primary school context [12-20]. When we examine the results of these studies, it can be seen that student behaviour encountered in the primary school context involve not listening to the teacher, talking to friends, complaining about peers, and being interested in something besides the lesson.

Most studies that have been carried out demonstrate that migration has both short-term or long-term severe psychological effects on children including depression, concern, adaptation problems, anger, hostility, obsessive-compulsive disorders, and low self-esteem [21-23].

The island of Cyprus has allowed immigrants to enter due to the properties it has demonstrated throughout history. The educational levels and socio-economic levels of the migrating families are low so migration continues to increasingly. Many problems have emerged in migrant-receiving regions. Education is one of the fields affected by migration. Education and teaching quality decreases in the schools in migrant-receiving regions. The more students there are in schools affected by migration, the bigger the classes are. Consequently, student performance decreases as teachers have less time for individual students, there are insufficient tools and materials in applied classes, families are insensitive and the authority of the teacher becomes less in the eyes of the students [8][24]. School psychological counselors working in secondary schools are required to be ready and willing to provide consultancy services consisting of relationships with the environment and parents, in order to minimize the misbehavior of students and to encourage the development, adaptation and success of the students. Thus, a common sense of counseling can be developed in secondary schools [25].

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When we consider puberty as a period in which the individual's tendency to act negatively increases [26], it is thought that it is important to identify the student misbehavior faced by school psychological

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counselors working in secondary schools, depending on the extent of migration and the factors that have an effect on the formation of these behaviors.

The objective of this study is to identify the student misbehaviors mostly commonly faced by school psychological counselors working in secondary schools, depending on the extent of migration and the factors that have an effect on the formation of these behaviors within the scope of psychological counseling and guidance.

Research objective

Problem statement

1. What are the most commonly faced student misbehaviors depending resulting from migration in Turkish Republic of Northern Cyprus (TRNC) secondary schools and high schools?
2. What factors have an effect on the formation of student misbehaviors resulting from migration in TRNC secondary schools and high schools?

MATERIALS AND METHODS

Research model

This study involves qualitative research. A qualitative method has been used to determine the student misbehaviors that are mostly faced depending on the extent of migration and the factors that have an effect on the formation of these misbehaviors. Qualitative research is defined as a study in which qualitative data collection methods such as qualitative research, observations, interviews and documentary analysis are used, and a qualitative process is followed to demonstrate events in a realistic and integrative way in their natural environment. In other words, qualitative research is an approach that prioritizes analyzing and understanding social facts that are based on theorizing within the environment they depend on [27]. A qualitative research design in the form of phenomenologic design has been used in this study. Phenomenologic design focuses on a phenomenon which we recognize, but have no in-depth and detailed sense of it [27].

Study group

The study group used in this research consists of 27 school psychological counselors working in secondary schools affiliated to the Directorate General for Secondary School, Ministry of National Education and Culture, Turkish Republic of Northern Cyprus during the 2016-2017 academic year. A total of 23 female and 4 male school psychological counselors working in secondary schools participated in the study. Deviant case sampling of the purposive sampling methods has been used to create a study group [27]. The researcher distributed 33 data collection forms in order to increase the degree of participation. 27 forms were returned. 2,523 students were Turkish citizens and not TRNC citizens among the 8,550 students in secondary schools, and 1,551 students were Turkish citizens and not TRNC students among 6,610 students in high schools affiliated to the Ministry of National Education and Culture, Turkish Republic of Northern Cyprus during the 2015-2016 academic year [28]. The following table illustrates the demographic information resulting from the answers to the personal information forms given by the 27 school psychological counselors.

Table 1: Demographic information with regard to school psychological counselors

Variable		Frequency(f)	Percentage (%)
Gender	Female	23	85,2
	Male	4	14,8
School level in which they work	Secondary school	15	55,6
	High school	12	44,4
Department of graduation	Department of Psychological Counseling and Guidance (Bachelor's degree)	16	59,3
	Department of Psychological Counseling and Guidance (Post Graduate)	6	22,2
	Department of Psychological Counseling and Guidance (Doctorate)	-	-
	Psychology	2	7,4
	Other (EPÖ, EÖD, EYDE)	3	11,1

Data collection tools

Personal Information Form was prepared by the researcher in order to obtain information from the school psychological counselors. In addition, semi-structured Student Misbehavior Interview Form was prepared by the researcher for use in this study. The Personal Information Form includes questions prepared in order to determine the gender, the school levels in which they work, and the department of graduation of

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the school psychological counselors. The Student Misbehavior Interview Form includes two open-ended questions used in order to determine student misbehavior that is mostly encountered by school psychological counselors depending on the extent of migration and the factors that have an effect on the formation of these behaviors.

Data collection

During the data collection process, interviews have been conducted. These involved the taking of notes so that the school psychological counselors didn't experience fear of being exposed and feeling secure. As a result, the school psychological counselors who participated in the study gave reliable answers. In addition, names and surnames, the name of the schools in which they work have been kept confidential in order to respect the privacies of the school psychological counselors who participated in the study. The necessary permissions were received from TRNC Ministry of National Education before interviewing the school psychological counselors. The interviews were then conducted by predetermining the date and course hours of the participants through consultation with their managers.

Data analysis

In this study, data was subjected to content analysis. Interviews were written first while analyzing the content and then they were made ready to solve by researcher. Every question involved in the Student Misbehavior Interview Form has been put into a category. Initially, three main categories were identified based on the student misbehavior in secondary schools and high schools, and the factors that have an effect on the formation of these behaviors. Accordingly, these three main categories are presented as the main categories in the findings section of this study. Titles under every category were considered as subcategories and analysis was undertaken. Code analysis (keywords) was performed in terms of each question discussed. Accordingly, the keywords in the answers of the participants were determined following consideration of each question. The codes in each question were combined and themes were created. The research findings were presented based on these themes. The themes were illustrated in the form of tables. Themes were explained by quoting exactly from the stated opinions of the participants.

Validity

The findings obtained as a result of the interviews conducted with school psychological counselors were written in detail, and then the way used to make an inference was expressed. The opinions in the interviews were presented through exact quotations and therefore validity study was performed.

Reliability: In this study, the researcher avoided directing the school psychological counselors during the interviews. In the study, the researcher analyzed the data obtained by interviewing, and categories were determined using a coding method. After the researcher had created the themes in order to determine the reliability of the coding used in the study, two experts experienced in qualitative research examined the codes and came to an agreement. Internal reliability was not controlled as codes had been accepted directly as themes. The individuals who acted as the data source in the study were identified in detail, in order to ensure the external reliability of the study. In addition, research data were kept so that other parties could examine them.

RESULTS

Table 2: Student misbehaviors most commonly encountered by school psychological counselors working in secondary and high schools

Secondary school	High school
Violence	Behavioural problems
Behavioural problems	Adaptation problems
Problems regarding lessons and class order	Violence
Psychological problems	Psychological problems
Friend relationships	Friend relationships
Financial problems	Problems regarding lessons and class order
Communication problems	Family relationships
Adaptation problems	Absenteeism
Academic failure	Academic failure
Dress rules	Communication problems
Absenteeism	Addiction
	Financial problems

Opinions of school psychological counselors working in secondary schools on students misbehaviors encountered depending on migration

As a result of the qualitative analysis of student misbehaviors depending on migration most commonly faced by school psychological counselors working in TRNC secondary schools, it has been found that they face problems of violence, behavioral problems, problems regarding lessons and class order, psychological

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problems, friend relationships, financial problems, communication problems, adaptation problems, academic failure, dress rules and absenteeism.

The opinions of two of the female school psychological counselors with regard to “violence” are presented in the following:

“Students use violence to each other, even in games.” (P13)

“Students express their anger by aggression.” (P11)

The opinions of one female and one male school psychological counselor with regard to “behavioural problems” are presented in the following:

“The use of bad language is very common among students.” (P5)

“Students insult each other.” (P10)

The pinion of one male school psychological counselor with regard to “problems regarding lessons and class order” is presented in the following:

“Students in the class usually whisper to each other throughout the lesson, speak without raising their hands, disturb the class order.” (P12)

The opinion of one female school psychological counselor with regard to “psychological problems” is presented in the following:

“Grouping is common among students. Students experience introversion and psychological loneliness as they don’t make friends.” (P1)
The opinion of one female school psychological counselor with regard to “friend relationships” is presented in the following:

“Students cannot get involved in friend groups and have difficulty making friends because of using bad words, behaving badly, using and not giving back friends’ belongings without permission.” (P1)
The opinion of one female school psychological counselor with regard to “financial problems” is presented in the following:

“Students are sent to schools without money because of financial problems, and some students ask their teachers for money in order to have something to eat.” (P13)

The opinion of one female school psychological counselor with regard to “communication problems” is presented in the following:

“Students have difficulty in their use of language, they don’t pay attention and listen to lessons, and they disturb order in the class as they have difficulty in understanding lessons because of the difference between the languages used at home and the language taught in school.” (P2)

The opinion of one female school psychological counselor with regard to “adaptation problems” is presented in the following:

“Students have difficulty in adopting school rules because of cultural differences.” (P2)
The opinion of one female school psychological counselor with regard to “academic failure” is presented in the following:

“Students have difficulty in concentrating on lessons. They don’t understand lessons and fail their exams as they have problems with language.” (P5)

The opinion of one female school psychological counselor with regard to “dress rules” is presented in the following:

“Students sometimes come to school without school uniform. If it is a physical education lesson, they can wear different clothes instead of the sports outfit with the school logo.” (P1)

The opinion of one male school psychological counselor with regard to “absenteeism” is presented in the following:

“There are some students who come to school but don’t go to any classes that day. Instead, they walk around the garden, go to some lessons only if they want to, or go to cafeterias near the school.” (P10)

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Opinions of school psychological counselors working in high schools on student misbehavior depending on migration

It is determined that school psychological counselors working in high schools face a range of student misbehavior in terms of behavioral problems, adaptation problems, violence, psychological problems, friend relationships, problems regarding lessons and class order, family relationships, absenteeism, academic failure, communication problems, addiction and financial problems.

The opinion of one female school psychological counselor with regard to "behavioral problems" is presented in the following:

"Students have problems with anger management and they use bad language to each other since they cannot keep their anger under control." (P6)

The opinion of one female counselor with regard to "adaptation problems" is presented in the following:

"Students experience problems in adapting to school and social life because of cultural differences." (P9)

The opinion of one female school psychological counselor with regard to "violence" is presented in the following:

"Vandalism is very common among the students. Students damage each other's and school materials on purpose" (P9)

The opinion of one female school psychological counselor with regard to "psychological problems" is presented in the following:
"Students get stressed due to discussions in the family because of problems with adapting to the new environment." (P3)

The opinion of one female school psychological counselor with regard to "friend relationships" is presented in the following:

"Students cannot get involved in different friend groups since they cannot make friends." (P5)

The opinion of one male school psychological counselor with regard to "problems regarding lessons and class order" is presented in the following:

"Students disturb their friends' concentration and make the course of the lesson difficult since they speak out in class without raising their hand, and don't come to the class on time. Instead they come the class after the bell rings and their teachers have entered the class." (P2)

The opinion of one female school psychological counselor with regard to "family relationships" is presented in the following:

"There are conflicts between teenagers and their parents as the students go counter to the traditions in their families." (P9)

The opinion of one female school psychological counselor with regard to "absenteeism" is presented in the following:

"Students are absent from school as they don't enter the class or skip class by deciding to do so with their friends at the first break time after they've attended the first 3 classes in the morning. They have right to be absent from school for 15 days. When they reach this limit, school management has trouble when it comes to informing their families. They send letters to the students' houses but students keep their families in ignorance about these letters in some way, and parents don't know that their children are skipping school until the day when management gets in touch with the families in some way." (P1)

The opinion of one female school psychological counselor with regard to "academic failure" is presented in the following:

"Because of cultural differences, students have difficulty in understanding the language used by teachers in the class. They can't take notes about what their teacher tells them and can't actively attend the lesson in the class. They can't do their term papers and fail in their lessons as they don't study systematically." (P6)

The opinion of one female school psychological counselor with regard to "communication problems" is presented in the following:

"Students have problems with language because of cultural differences, and the difference between the language used by their parents at home and the language used by the teacher at school." (P3)

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The opinion of one female school psychological counselor with regard to “addiction” is presented in the following:

“Drug addiction is very common among students. They start smoking in order to be involved in friend groups, or they are curious about drugs and they start to think “Let’s have a try and see what happens”. There is also indifference on the part of their parents. In-family problems experienced in terms of adapting to a new environment are some factors that trigger the use of drugs.” (P10)

The opinion of one female school psychological counselor on “financial problems” is presented in the following:

“Because of financial problems, English school books are not free and students can’t buy them, can’t pay the fee for the school report, can’t attend several activities of the school such as picnics. When their sports outfit with the school logo tears, they can’t buy a new one because of financial problems, and the students come to school with a different sports outfit when they have physical education lessons.” (P11)

Factors having an effect on the formation of student misbehavior encountered by school psychological counselors working in secondary schools resulting from migration

Adaptation problems, cultural problems, family factors (indifference of family members, the educational level of the family and financial problems faced by the family) and environmental problems (all settings where students are) experienced after migration have an effect on the formation of student misbehavior encountered in TRNC secondary schools.

DISCUSSION AND RECOMMENDATIONS

The question “What are the five student misbehaviors you encounter most often in schools resulting from the migration?” was addressed to school psychological counselors working in secondary schools.

In terms of the findings obtained as a result of the interviews conducted with school psychological counselors, students in secondary schools and high schools use physical violence against each other. In addition, they state that students use verbal violence and use bad language to one another.

School psychological counselors have emphasized that migrant students in secondary schools and high schools also talk less in the class, don’t listen to lessons, are indifferent to lessons, disturb the course of the lesson by not raising their hand to receive permission, and come to class after the teacher has started teaching. They also display some behaviors that disturb the course of the lesson. In parallel with the research results in a study by Siyez, 2009 [29] teachers working in high schools expressed that student misbehaviors mostly encountered in schools include behaviors such as indifference to the lessons, talking during the class, being unwilling to bear responsibility for the lessons, talking in the class without raising a hand, and cheating.

School psychological counselors stated that migrant students in secondary schools and high schools have difficulty in understanding lessons because of a problem with language. Their levels of success decrease, and they are indifferent to lessons as they don’t understand the lessons. According to a study by Tok, 2010 [30] teachers expressed the view that immigrant students have difficulties in saying words, expressing exactly what they want to say, and answering the questions about texts in Turkish lessons. Tok’s study has parallels with the result of this study in that students have a language problem as they don’t have a good mastery of the Turkish language.

The school psychological counselors indicated that students in secondary schools and in high schools are indifferent to classes, and therefore don’t come to school, or they are absent from school due to skipping classes. They also emphasized that students experience academic failure as they have language problems, and there is a difference between the language used at home and the grammar rules taught at school. In addition, their absence from school means that they are not studying systematically.

The school psychological counselors indicated that migrant students in secondary schools and high schools have difficulty in adapting to the new environment, and have problems with making new friends because of cultural differences. They also have psychological problems such as introversion, loneliness rising to the surface, in addition to difficulties in making new friends. They show a tendency towards smoking addition in order to take part in friends’ groups, or tend to use drugs as a solution to the indifference of their family about their problems.

The school psychological counselors stated that students in secondary schools and high schools ask their teachers for money for food due to the financial problems faced by their parents. They haven’t got enough money to buy school books, participate in school activities such as picnics, and replace old school uniforms. They also emphasized that students wear different clothes because they can’t buy the school uniform. Therefore, their clothes are different from that dictated by school dress rules.

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The school psychological counselors stated that the formation of student misbehavior in secondary schools and high schools is affected by adaptation problems caused by them moving from the usual order and culture due to migration, and adapting to a new order and culture, being from different socio-cultural environments, the indifference of their families, the low educational levels of their parents or parents who are not literate. These parents are of a low socio-economic level, and the environmental factors associated with where students live (family, school, friends, etc.) also cause problems.

Recommendations for action are presented as follows, based on the research results:

- Teachers, families and school managers should determine a common sense of guidance and prevent student misbehaviors in a consistent manner.
- Training and seminars could be conducted for parents by school managers communicating with the relevant institutions.
- Immigrant families should be educated in terms of adaptation and knowledge of culture and social life for several months.
- Students should be provided with preventive consultancy services.
- As government policy, students could be supported through a range of activities to bring a sense of belonging.
- Studies on bullying and preventing violence could be performed.
- Mainstreaming educations and orientation activities could be planned.
- School inputs and outputs should be inspected.
- Language programs should be prepared for students, especially for those who use a different language. All departments should work in cooperation in this regard.
- Within the consultancy time of educational programs, subjects such as conflict settlement, anger management, and self-respect could be taught in all grades.
- Students from foreign countries who have communication problems should participate in language courses within the scope of Ministry of National Education before being sent to school.
- The Ministry of National Education should provide in-service training for teachers and managers in order to prevent the student misbehavior encountered on the part of migrant students.
- Multicultural training studies should be conducted by the Ministry of National Education.
- Recommendations for researchers who wish to study this subject are presented as follows:
- This study has been conducted using qualitative research methods. The same study could be conducted using quantitative research methods.
- This study has been conducted by obtaining the opinions of school psychological counselors. The same study could be conducted by obtaining the opinions of teachers and managers.
- This study has been limited to secondary schools. The same study could be conducted by involving primary schools.

CONFLICT OF INTEREST
There is no conflict of interest.

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ARTICLE

THE ROLES OF UNIVERSITIES IN THE PROCESS OF CHANGE

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ABSTRACT

Every society is a continuous dynamism, is in for a change. In every society, giving direction to social change, which is the instrument of change and social institutions that condition has not changed. This training in social institutions, has an important impact on the structure and function. Universities are organizations that govern the operation of a wide range of research, this research is preparing the infrastructure of social change by contributing to the development of knowledge and technology. The roles of universities are as following; keeping universities as public responsibility, considering researching as an inherent element of higher education, increasing the academic quality by establishing authoritative institutions, improving the dynamism and social aspects, supporting the development of a political structure for Europe with the perspective of quality assurance, and being in the center of their forms. Currently, the responsibilities of universities group edin to such three main parts as, teaching-training, academic research and social services.

KEY WORDS
Diversity, Role, Mission, Change. Intelligence

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INTRODUCTION

Today, societies are in constant dynamism and change. Bulletin changes made in the cultural and social fields have noticeable effects. The change is expressed as a previous state or in the form of transformations occurred [18][21]. Education has been ongoing since its inception. Due to this development, technology has made significant improvements in the education system. Today, the teaching system comes from being seen as a system of teachers and students, like the old [35][36][37].

In communities, there are social institutions that guide and mediate social change and transformation. This training in social institutions, structure and function has a very important effect [32]. Since the formation of the universities, they have emerged as the leading organizations that guide the community. Particularly, they provide collective services on the continuity of information flow, shaping and direction of information. Universities also have a significant impact on the countries development and individual development. It is expected that it will fulfill its duties and responsibilities such as educating effective and qualified workforce for the society, producing science and technology, leadership of social change and developments [31]. Higher education institutions along the public, business, science, law, medicine and does not only train new leaders in other different fields, also embrace the responsibilities such as train the staff college to give prior level of public education [5][25][20].

At this point, we can say that the universities take two different fields. The "information society" consisting of the people we directly influence, which we can say as "domain" the second is the "source society" consisting of people who contribute to the formation of the information society, which we can call "the field of interest".

Knowledge is generally expressed as "intellectual product "or" learned thing" that can be obtained through ideas, judgment, reasoning, reading, observation and experimentation. Knowledge, in this sense, means processed and meaningful data through a certain process [27].

Recent science and technology changes and the development of the explosion of information and information technology community and by the look that they contribute to economic development, Toffler's "third wave" as expressed in the stage of "information age" and the society envisaged by the term "information to PLU me" was deemed appropriate to called [28].

Accelerating developments in information and communications technology since the Industrial Revolution, with a new name "information revolution" was defined. In the information society, the production of knowledge instead of the production of the object is the forefront. Information is not the purpose, but the means. Through efficient use of information coming to the most important state in information society; economic, social, political and societal changes. Universities are places where information is produced in the information society. Universities ensure that creative information is generated and distributed. Information society needs people who are committed to self-development and have the ability to learn lifelong. Moreover, it reads information writing skills to students [12][10][11][9][43][7][8][30]. Farmer, 2010, 26, 44], and to be educated at the level of education are continuing under the leadership of their libraries. Today's technological developments are continuing rapidly. In light of the development of new technologies in education are technology and new materials in widespread use [tugs, so that in 2016].

Literature review

Today, with digitalization, approaches to learning and teaching have changed in education and training. The impact of changing and transforming technology is reflected in every learning group from primary school to university. It feels that we are most intense at the turn of the industrial society to an information

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society and learner during this period and the industrial revolution in education is becoming day by day with innovative technology.

Life cycles and processes of the organization in the 21st century is fed from an industrial economy. In this age, institutions, companies, countries are in constant competition in their own to make use of information, to reach more practical wisdom. Together with Information and Communication Technologies, it is much easier to access information and technology in our day. One of the factors that distinguishes institutions from their competitors and brings a step forward is, of course, managing knowledge and protecting data. Personalization, speed, globalization, information technologies, new processes are the most important factors in knowledge management [14].

Countries, companies and institutions can improve themselves with innovative solutions and successful results that come with the business association, creativity and knowledge management. In 21st century, one of the most important new ideas is its capability to take advantage of new products and processes. Every field of knowledge management and technology that comes to mind in economics, industry, education, and politics comes into play.

Knowledge is a fundamental concept in which mankind can develop and strengthen itself, being a concept expressed as power throughout history. Knowledge acquisition, transfer and storage have been among the most important factors for the development of human history. Nowadays we feel the change very quickly. Social life with the development of technology comes a different dimension of social state structures. Along with the information provided by the technology, competition dominance has a considerable effect on the economy. To be a strong economy in a country requires a strong political infrastructure and a good education system. Education is the most important goal of a country. In our age of the qualified personnel trained in catching up, in every field of knowledge and technology concept comes into our minds until the formation of the global economy are outstanding [13].

Good information to plan correctly and to manage a business is to see the future status of the job. The direction to the future of a business is to manage the information sentence you are emphasized how important the power of knowledge. As a consequence of knowledge management, the new economy and the globalized business world, we are talking about a period when new scale economies emerged, information networks and the economy could grow faster and learning now takes place thanks to intelligent devices.

Knowledge management produces a fundamental variable, accelerating procurement processes, changing marketing perception, facilitating the development of education and training, increasing economic information through networks, globalization, faster consumer feedback, increased competition, raising individual-based economics.

The basis of knowledge is data, information, education. Knowledge management leads to better organizational goals, increased productivity, and more effective education. Knowledge management of organizational objectives to the people in a good way, to be reflected in a systematic way the group is to be shared and applied. Information management is a process of harmonization, continuity and competition of institutions against increasing environmental changes. It is a phenomenon that serves to solve such problems. In other words, information management is a new interdisciplinary business model. The main goal of knowledge management is to increase productivity and productivity by making production effective. Knowledge management ensures that people receive a better education.

Knowledge management are summarized as follows; Identifying information for ongoing action, linking business management with information management, analyzing existing information, focusing on processes rather than open knowledge, building future knowledge management architecture, and learning from previous knowledge management practices.

In education and training, knowledge management should be accepted as an institutional strategy in terms of managers. For this, the technological structures of the universities need to be improved. Because information and technology have become the most important thing that creates value today. Together with the concept of information, data is required to obtain information. Data is a raw material of the information management process. It makes sense that the supply of data per additional GB, but the database has been processed after expression to make a language that makes sense [4].

One of the most important resources of the institutions during the information age is the information coming from information technologies. Computational distant and objective information shows the individual feature ideas. Acquiring, using and managing information are also cost-intensive. Most developed and developing countries allocate much of their gross national product to produce information.

In this era of transition from industrial societies to information societies, the economy is now becoming more global. Physical capital has left the place to human resources and information capital. Industrial organizations have left their place to knowledge-based organizations. Symbolic paper money is no return to dominance of digital money [40]. Nuclear family structure has been transformed into individual family-centered family structures. Security provider institutions have now become institutionalized to develop individual skills. Periodic education has become a lifelong education. The Mechanical Technology

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revolution has now changed as a revolution in information technology. Instead of machines that substitute for work, they have built machines that develop brain power. Visual and written press and media tools have become communication techniques based on internet and digital technology. Traditional learning methods in education and training has now online platforms such as e-learning. It is now easier to use knowledge in education.

In the age of information, capital, raw materials and labor must be used to achieve economic success. Producing information is a difficult process. Knowledge can now be produced anywhere. In this context, managing information and knowledge has become a strategic management approach.

In education and training, institutions need to keep up with change and transformation in order to stay behind the times. Traditional structures need to be replaced by modern structures. In this regard, decision-making activities are carried out rapidly by utilizing information. Today, data warehousing, data mining, business intelligence and applications are also applications for streamlining theoretical data. From a knowledge point of view, human capital constitutes the sum of the knowledge and experience that employees have.

Education, health, economy, tourism, commerce, industry and on every field that may come to mind is shaped by the notion of "knowledge" and "intellectual capital" that constitutes the market value of institutions and that elements that are not visible in the structure of the traditional balance sheet share. Today, as corporations corporate values are calculated, in addition to their financial resources, the ability to adapt to change and transformation, their management qualifications and their ability to reach new markets have begun to participate.

Looking at Information Management Instruments, it covers the processes of identifying information gap, developing and purchasing information, sharing information and evaluating information. In terms of determining the information gap, studies have authorization to market value, giving importance to product development, concern competition, benefit consultants, given as examples of best practice to learn. In terms of developing and purchasing information, research and development includes factors such as continuing studies, giving importance to education, creating help tables, conducting studies about customer satisfaction, training personnel, creating open culture structure and getting information from suppliers. When we look at sharing information, we also organize task groups, facilitate team building, establish information management system, give importance to use information technology, provide electronic network and organize cocktails. When we look at the evaluation of internal audit, external audit, meeting with suppliers, reading reports, discussing with customers, making project valuation, benchmarking, etc. solutions.

Toffler "3rd Wave" as the industrial society of the information society to transition from production to family structure, social life until the power relations argue that there have been major changes in many areas. About information theory, advocated the idea that the only reliable source of information of continuous competitive advantage in an economy where the only certainty is uncertainty. In addition, it argues that if the rivalries increase when there are changes in the markets, the source that can be used most quickly in order to recover when sudden crises is experienced is again knowledge and experience.

In addition, the value structure provided by information management activities is called "information value chain". Industry knowledge society or knowledge society rather than physical strength to go toward the so-termed period is the period in which the brain power enabled. Also, using machines instead of physical force is another factor. Along with new production technologies, it also has a need for raw materials and a new market.

Post-industrial society, the dynamism of information from the field, individuals with important skills taught, is a society where the current of a game between individuals [22]. When the situation is examined in 1967, 25% of US social yielding good information, contact the production of goods and services consists of the distribution business. In 1970, most of the workers began to be called information workers. Most 50% of labor income in society gives to this group [29]. Megatrends are major trends that in the 1990s he was evaluated. And the use of the elements underlying the information that buys information technology [23].

Computers in the industrial society of the steam engine in place using information society has taken a job. Located price principle in the industrial society, information has become the principle aim of the society pretends. Enterprise structure has become volunteers pretending communities. Unemployment in industrial society, its place in the information society issues such as war and terrorism and take the form of future shock. What information has started mass production of high mass consumption. Renaissance structure as the spirit of the times, globalization is replaced by the current.

The markets that are getting in the way of globalization and the presentation of the output to the market are now being evaluated worldwide. While agriculture, industry and services come to the forefront in industrial societies; vertical form-building in the education industry, has emerged concepts such as health and housing.

The workers of the knowledge worker industry, production, most of the indirect costs that makes the process of information society is changing the concept of the traditional cost management structure. In traditional cost management, profit and ROI (return on investment) concept is not a problem. The profit on the production cost determines the selling price of the product. Today, this approach is no longer correct. In short, knowledge is a combination of a set of experiences, values, a goal-oriented technology, and ideas to bring together and interpret new experiences and technologies.

In the information society, information is regarded as a tool, not as a purpose. Using data efficiently is the most important factor. Economically more prosperous with the use data in an efficient manner, more peaceful life of the community is believed.

The places where information is produced in the information society are undoubtedly universities and academic research centers. Universities are able to produce new knowledge through innovative approaches. Universities in the information society are important institutions that stimulate lifelong learning. They also benefit from technological improvements while learning. Today, the education and training system is becoming increasingly digital. New projects are being implemented to facilitate the education of students. Some of them are distance education programs. Those who are experiencing difficulties in joining the university on this occasion can save time and access to information anytime and anywhere thanks to their mobile devices. Thanks to technology superiority in education, research and development can be done more quickly and easily. Trainers should also be included in training programs that can develop themselves if they need to adapt themselves to the emerging technology trends.

Universities are institutions with extensive research interests. They lead social and social changes by contributing to the development of knowledge and technology through these researches [33]. Freedom of movement, increased ease of transportation and communication facilities have increased the interaction of people in society. So, globalization will continue to grow. In line with social changes that have occurred, the role of universities in these changes and transformations is said to be quite important [2].

Universities play an active role in the development, economic and political life of societies as well as in the center of social development. One of the important innovations that can affect the future of societies in the field of higher education is the Bologna Process. This process includes comprehensive innovations for higher education systems. The main purpose of these innovations is to restructure the European higher education system, to bring it to a good position, and to reduce the strong role of American universities in education. Universities with a more energetic, dynamic and flexible structure are now a necessity. So, the planned targets are; the role of universities should be emphasized, such as student and teaching staff, quality assurance of systems, and lifelong learning. The Bologna Process aims to realize a common higher education area from 2010 onwards. Within the framework of the Bologna process "roles of universities" are research [3; 17]. Research on higher education important and see it as an integral part, to ensure the promotion of academic quality, improve social format, support a policy to develop the structure for Europe in the framework of quality assurance, to be at the center of innovation in universities, to have scientific ideas and this understanding is placing consistently produce knowledge and science.

21st century developments in science and technology has continued to increase [Longshanks, 2016]. R is trusted in scientific research, it is an important consideration in the cultivation of successful scientists. Moreover, data is so much information and in accordance with the documentation center with a rich library world. Of these, most importantly, the university, the history of the country, its traditions, beliefs and cultural development should analyze the good and evaluating them as universal must reveal the ways of contributing to culture and science [34]. It should not be forgotten that your globe passes the nationality.

UNESCO has defined the role of the university in the following way. The provision of social development and economic growth in the production of competition can be products and services, the provision of the formation and preservation of cultural identity, social bond, maintain, and higher education in combating poverty, it is indispensable institution" [19].

Today, universities have many responsibilities. To ensure that universities remain publicly responsible, to make research and development an integral part of higher education, to promote social welfare, to be at the center of reform. In 1996, UNESCO [38] expressed the role of the university as follows: "Social growth, development, economic growth, competitive advantage, shaping cultural identity, sustaining social structure, reducing the level of poverty. One of the main objectives of education and training systems, and meet the qualification requirements of the labor market [6]. Universities have tasks such as being a pioneer in society, enhancing quality and contributing to development. In addition, science, technology, art, culture, education, service, economy and so on. They need to support continuous development in the fields.

Widespread of information technologies in the 21th century, distances have begun to shrink. Information produced in the globalized world is shared among all users in a short period of time. The traditional paper methods, instead of the print medium is no longer in business becomes much easier to get the information from digital media. In the direction of this technology, universities should become institutions that are pioneering change, not keeping pace with technology.

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Universities have developed programs that will be innovative with academic and scientific work that will contribute to the education programs such as master's and doctoral degrees as a qualification enhancing factor. Individuals who keep up with the information given here, they are included in the institution, will give direction to the development of high-tech products in the country with ideas to be put forward in the organization. This will also have a direct impact on the development of the country. It originates from a producing higher education institution. Because of this, universities constantly have to renew themselves.

Universities serve as bridges for educating people who are in need of industry. While educating people, they have to educate individuals who will adapt to the environment that develops with technology. Universities also have to contribute to promoting innovation and entrepreneurship. In this scope, they have the task of establishing technology transfer centers, supporting incubation centers, being an entrepreneur and innovative model, investing in technology and R & D.

In recent years, universities have started to form themselves under the definitions of "entrepreneur", "innovative", "open", "researcher", "third generation university". Universities are seen in the figure above to produce information, there are also tasks such as spreading knowledge and apply knowledge.

Universities which are dynamic in education and research, who are researchers and innovators who have importance to productivity, science, and global vision in the world, increase the potential of the region they are in and contribute to their country. Technology, culture, economy, social structure, infrastructure, change and transformation that have come from the centuries since the foundation of the successes of the universities of USA, UK, Germany, France and Netherlands [15, 16]. Strong industrial cooperations, research activity, patent gains etc. of the universities in these countries make a great contribution to the economy of the country [1].

The ranking of the world's best universities in the year of 2015-2016, according to data from the world's top 10 research universities of 6, has explained that while the top 50 research universities. [39].

World Intellectual Property Organization According to WIPO statistics; Between 2010 and 2014, China ranked first with 837,817 in total patent applications, while the US ranked second with 509,521 patents, Japan ranked third with 465,971, and Korea Republic with 230,553 skates. 40% of patent applications in the US, 10% in Korea, 9% in Japan and 7.5% in China were made by universities [40].

In particular, space research, biotechnology, medical technology, nanotechnology, computer technology, digital communications, medicine, genetics, systems engineering, such as advanced technology research of speed gains that today's R & D activities are known to require high budgets. For example, world's best university, Harvard University, ranks first in the ranking at the end of the budget for fiscal year 2015 is described to be about 36.4 billion USD of about 109 billion.

Harvard's budget is about 4.5 times the size of the total budget of 23.6 billion TL in 2016, 109 state universities in Turkey. On the other hand, the rapid increase in the number of students receiving higher education in the world and the magnitude of the economic contribution provided by the higher education market to the countries formed by the international mobility of higher education cannot be denied.

According to OECD statistics on the number of students receiving higher education worldwide with the number of international students in 1975, 800 thousand people, 2.2 million in 2000, it reached 4.5 million in 2012. Due to increasing mobility, the number of international students for 2020 is estimated to reach 8 million.

MATERIALS AND METHODS

The basic question to be asked about universities today is that what kind of universities we need. In terms of regional economic development, it is necessary to have a university that is entrepreneurial, active and initiative in the region, which is not enough to be a university in the region.

In order to establish a long-term and successful partnership between the university and the region, it is necessary to develop processes that will ensure that university resources are appropriately used and transferred to the regional development process. Between the dates determined for the studies examined according to the theme determined in this survey; examination of the distribution, examining the source of the publication, examination of the institution. According to the authors of the documents research topic, country/region to be examined by the investigation. According to the document forms, be examined by subject area, examining according to the methods they are made, according to people who applied analysis will be conducted.

The main purpose of the research was to examine the establishment of a foundation for the university model roles and tasks that aim at quality life and innovations in the future of universities, education, structure and functional functions of universities that evolve and change in dynamic processes. For this purpose to be realized; Scopus database is located in the theses and articles from the literature of studies done over the past 5 years "University", "role", "duty", "change" the 58 studies were identified.

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The research was carried out using the type of content analysis from qualitative research methods. The main purpose of the content analysis is to reach the concepts and connections that can help explain the compiled data. The basic process carried out in the context of the content analysis process is to gather the data that are similar to each other in a certain frame and to interpret this data to a level that the readers can understand [42].

Research Near East University Large Library the Scopus database is limited to 5 years covering the period 2012-2016 and documents in the Social Sciences department. Content analysis of the thesis under investigation, examination of the distribution, examining the source of the publication, examination of the institutions of the publication, examination by the author documents the subject of research, investigation according to the regions subject documents country/research, examining according to the way document documents the subject of research, examination in the subject field of the documents research, examination according to the methods they are made of the documents subject of research according to those documents and applied research topic will be held to examine.

Data collection tools

First Scopus is the university of keywords using the database within the framework of research on the views of tasks and roles in the context of exchange of university exchange, duties and have scanned a role written in the database and scan limit the 2012-2016 years as supply of have reached a yield of 58 pieces. Photo achieved were evaluated and data collected from the evaluation information which theses in Turkish were used but translated. Scopus database of information obtained under study were analyzed and the relation between them was analyzed using the data content analysis.

RESULTS AND DISCUSSION

Between the years 2012-2016 the research documents distribution

In this phase of the study "University", "role", "duty", "change" to the Scopus database using the keywords distribution according to documents published between the years of 2012-2016 years it was investigated. In this context, research has found 58 entering the Scopus database. Obtained according to the literature in distribution in [Table 1] and the graphical representation are shown in [Table 2].

Table 1: Distribution throughout Years

Year	F	%
2016	12	21
2015	12	21
2014	16	27
2013	7	12
2012	11	19
Total	58	100

[Table 1], compared to 27% in most studies examined (16 units), it is seen that done in 2014. This, with 21% (12-units) are eyeing 2016 and 2015, compared to 19% (11 units) research published in the year 2012 and at least 12% compared to the year 2013 is seen. These findings are based on pre-defined key concepts of the publications made by using the light from the last 3 years seems to be more. If the cause of the key concepts now widely researched going to use is thought to be the research.

Table 2: Graphical distribution of articles in the last 5 years containing "university", "role", "role", "mission", "change"

Year	Number of Docs.
2012	11
2013	7
2014	16
2014	12
2016	12

[Table 1] from the last 5 years the frequency and percentage of published documents graphical representation of the above [Table 2] are given.

Investigation of the sources of data published in between the years 2012-2016

The results of the review by looking at the ground source documents published in Research Higher Education, Academic Medicine Journal of the International Academy Case Studies, Library Trends and advances in Librarianship the first one identified as woven published it was.

Fig. 1: Graphical distribution of articles based on the resources in the last 5 years containing "university", "role", "mission" and "change".

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When it looks at the publications in the 2012-2016 broadcast year's most advanced form of librarianship it appears to run.

Terms of the institute of investigation published data between the years 2012-2016

Research on the data in the light of "university", "role", "duty" and "change" the work done in the last five years, using the words of George Washington University, Eastern Kentucky University, University of South Carolina, Royal College of the Music, Guildhall School of Music and Drama, the Federal Agency For Cartography and Caodesy, University School of Medicine and Hazith in Sciences, Universidad da Ciencias Medicas de Lade and Mosdoles University Hospital was found that the publication weave.

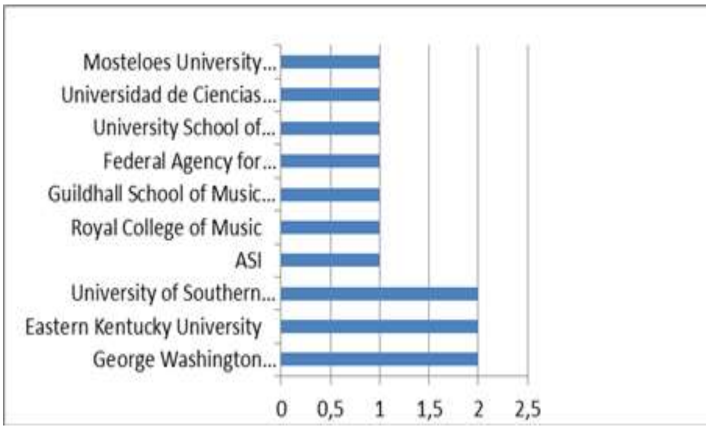

Fig. 2: Graphical distribution of articles in the last 5 years based on the institutions containing the words "university", "role", "mission", "change".

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Data from the result examined for soot bodies were detected up to 2 at least one spring that is made. Data from only 6 of them made from universities, while all the rest of it is made from a single broadcast institution [Fig. 2] to be seen.

Respect study authors of published data between the years of 2012-2016

Goal data in the result of the examination in the light; McGee LW, Abrams LS, Acosta, Aguilar-Gaxiol to S.Pour, JS Akman, Angheleso HGB, Annansing F., Arimoto A., Australian housing and Balss U. Publications related to be 1 unit. It is illustrated by [Fig. 3].

Investigation documents published between the years 2012-2016 by country

Data in the light of "university", "role", "duty" and "change" the determination of the countries where the studies were made in the last five years, using words posted for the Scopus data contained in the database taken into consideration and obtained 58 document graphene spindle is shown in [Table 3]. Data in the light of the United States 31 United Kingdom 5, Undefined 5, Australia 3, Austria 2, Estonia 2, Germany 2, Ireland 2, Italy 2 and Netherland 2 broadcast shows, including countries that do.

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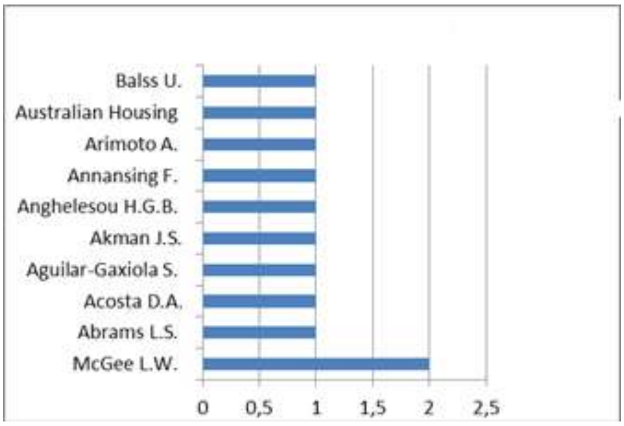

Fig. 3: Graphical distribution of articles in the last 5 years based on the authors containing the words "university", "role", "mission", "change".

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Table 3: Graphical distribution of articles in the last 5 years based on country containing the words "university", "role", "role", "mission", "change"

Country	Number ofArticles
United States	31
United Kingdom	5
Australia	3
Estonia	2
Germany	2
Ireland	2
Italy	2
Netherlands	2
Spain	2

In light of these data in the US (United States) 53% document, the UK (United Kingdom) % 10, Australia (Australia) 6% document, Austria (Austria) 3% document, Estonia (Estonia) 3% document, Germany (Germany)% 3 document, Ireland (Ireland) % 3 document, Italy (Italy) 3% document, Netherlands (Netherlands) 3% document, Spain (Spain) 3% document, spindles have been identified as serving % to 10 documents of the country.

Table 4: Graphical distribution of percentages of articles in the last 5 years based on the countries containing the words "university", "role", "role", "mission", "change".

Countries	Number of Documents	Percentage (%)
United States	31	%53
United Kingdom	5	%10
Australia	3	%6
Austria	2	%3
Estonia	2	%3
Germany	2	%3
Ireland	2	%3
Italy	2	%3
Netherlands	2	%3
Spain	2	%3
Others	5	%10
Total	58	%100

Looking at the [Table 4] it is seen that the highest share of the United States. The United States "university", "role", "duty" and "change" as the reason to research and publish publications with the words, it is considered that due to the importance given to education of the universities in the United States.

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Investigation of the year 2012-2016 by the research documents between document figure

Research of the sixth section of the published documents in the light of the data obtained by the construction shape article (Article) 36, chapters of books (Book Chapter) 10 books (Book) 4 in the press that article (Article in Press) 4, review (Review) 3 and Report (Conference Paper) 1 Locations published documents, including grain and percentages in [Fig. 4] are seen.

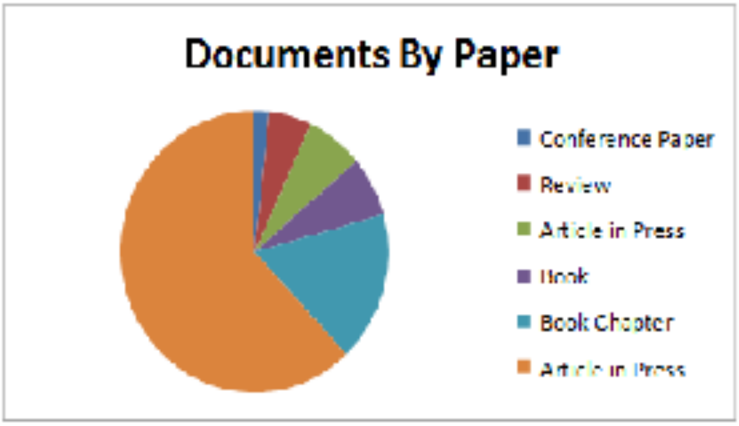

Fig. 4: Graphical distribution of articles in the last 5 years based on the percentages and publications containing the words "university", "role", "role", "mission", "change".

When analyzed in terms of the manner in which it is observed that the documents made 62.1% as compared to most articles. The reason why most of the research done in the article, the article is seen to be more acceptable than other forms of research and take less time for preparation.

Terms investigation department documents on research

In the seventh part of the study to examine whether the documents published in the science, which in the light of the data obtained for the purpose; 58 pieces of the distribution fabric; in the social sciences (social sciences) 55% (32 units), computer science (computer science by) 5.2% (3), in the arts and humanities (art and humanities) 19% (11 units), business, management and accounting (Business, management and accounting) 3.4% (2), engineering (engineering) 1.7% (1), medicine (medicine) 6.9% (4), earth and space sciences (Earth and planetary sciences) 3.4% (2), econometrics, and finance (economics metrics and finance) 1.7% (1) Dentistry (Dentistry) % 1.7 (1), environmental science (environmental sciences) % 1.7 (1), the sciences published documents, including [Table 5] shows.

Table 5: Graphical distribution of articles in the last 5 years based on the research area containing the words "university", "role", "role", "mission", "change"

Documents By Subjected Area	
Social Sciences	55
Computer Science	5
Art and Humanities	19
Business, Management and Accounting	3,4
Engineering	1,7
Medicine	6,9
Earth and Planetary Sciences	3,4
Economics Econimetrics and Finance	1,7
Environmental Sciences	1,7

Investigation of the year 2012-2016 by the research methods between the documents as they are made

At this stage of research documents using methods which were examined they were built, it was studied fabric 58 from Scopus database. Accordingly, 29 pieces qualitative method, quantitative method at 8 and 21 was determined using the hybrid method. In the case of qualitative research, the ratio of 50%, the proportion of 14% and the proportion of quantitative studies and research to be mixed 36% in [Table 6] are shown.

Table 6: Distribution of articles based on research methods

Research Method	Number of Articles	Percentage (%)
Qualitative	29	%50
Quantitative	8	%14
Hybrid	21	%36
Total	58	%100

Between the years 2012-2016 in which applied research documents examined by the target audience

Examining the data in the database Scopus by the audience research phase is considered. Accordingly, the teaching staff of 14 people% 44 adults 1 person 3%, managers, 4 persons 12%, students 8 people 25%, theater actresses 1 person 3%, dental faculty employees 1 person 3%, health center employees one person% 3, 3% of immigrants 1 person, 1-person workplace where employees 3% are shown in [Table 7].

Table 7: Distribution based on the target audience

Target Audience	Numbers of articles	Percentage (%)
Researchers	14	%44
Adults	1	%3
Managers	4	%12
Students	8	%25,5
Artists	1	%3
Refugees	1	%3
Workers	3	%9
Total	32	%100

[Table 7] 'as observed "University", "role", "duty" and "change" From the perspective of the target is applied to the articles during the last five years using the concepts of mass of 44% is held as an instructor. Instructors, students and administrators are understood to be more effective in the majority in the sample.

DISCUSSION

Designated 9 themes were researched in Scopus database of scanned document has been tried on 58 pieces. According to this; When the distribution of the documents by years of research subjects studied, universities, role, duties, exchange has increased steadily in the field of studies. Considering the source of publication recognizes that the document reaches the peak levels obtained in 2014 were not. When analyzed in terms of the institutions of publication, examine concepts that have emerged mainly in the universities.

According to the authors, these authors examined in two publications with the most Mc. GEA has LWR. Country/When examined by region, published research shows that more than half of the United States. When analyzed according to the document shape is mainly on published documents article. When analyzed in terms of threads, the number of research studies conducted in the field of social sciences because it appeared to be very community-oriented. When analyzed according to the methods they are made, a large proportion of the articles made of qualitative field seems to be.

When applied to the persons examined, 44% of lecturers, 26% students, 12% have been identified as managers. Knowledge transfer and R & D intensity of individual universities located under the roof where the density was observed.

Recommendations

Browse the results of the following recommendations made in an appropriate way that considered to be;

1. They should be encouraged to contribute to social change in universities.
2. Measures should be taken for the development of the nature of the University.
3. Coordinating with other civil society organizations to contribute to the exchange and cooperation of the universities should be considered.
4. To cooperate with universities in the industry to successfully perform this conversion, to be intertwined with the public, are obliged to establish the best academic staff.
5. Universities should be the owner saw the front in planning the future of the society.

CONFLICT OF INTEREST

There is no conflict of interest.

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ARTICLE

SKILLS &CONCEPTUAL TEACHINGIN EDUCATION: INVESTIGATION OF POST GRADUATE THESIS

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ABSTRACT

This study was carried out to examine master and doctorate thesis about skills and concept teaching in special education between 2010-2016 years, determine the advancements in skills and concept teaching studies and pave the way for researchers in their future studies. In order to achieve this aim, thesis were evaluated based on year, method, data collection tools, research sample, data analysis technics, research areas and results. Thesis were examined with document analysis as part of descriptive approach and "Thesis Classification Form" was used for content analysis of each thesis. Open access thesis carried out between 2010-2016 related with skills and concept teaching from YOK National Thesis Database are included in the study. Content analysis method was used in data analysis. Results showed that thesis were mainly master thesis and single-subject research method as one of the quantitative research methods was frequently used in the thesis. When data collection tools of thesis were examined, it was found that observation, questionnaire and scales were frequently used, research sample mainly included students and there were 1-10 subjects in the sample. Lastly, results also showed that research areas of thesis focused on simultaneous prompting method, constant time delay procedure and teaching with video-tablet.

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KEY WORDS
Special Education, Skill, Concept, Skill and Concept Teaching.

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INTRODUCTION

Every individual is different and has different characteristics. Often these differences between individuals are not too great. Therefore, there is no problem in the utilization of these individuals from general education services under normal conditions [1].

However, as the dimension of the differences increases, the general education services provided to the individuals may be insufficient and special education services are needed [2], [3]. Individuals who need special education have different needs from other individuals [4]. It is one of the most basic characteristics of the society to provide individuals who need special education by ensuring equality of opportunity in education in early childhood and to prepare them to life in a good way. Looking at the main purpose of special education is to provide these individuals with basic living skills so that they can achieve self-sufficiency [5]. The main objective of the education is to educate the individuals who have some difficulties to gain publicity, to become independent, or to teach them the behaviors, knowledge and skills they need in order to continue their lives in the least dependent way [6], [7], [8].

The basic skills required for the individual to achieve this goal with success are; basic development skills, necessary numerical skills in everyday life, sub-skills such as reading and communication necessary in everyday life. [9]. divide these skills into four skill areas. These are the basic skills required for success, the skills required for integration, the skills of everyday life, professional preparation and professional skills, language and communication skills [10]. [11] states that independent living skills are divided into two sub-skill areas, self-care and in-home skills. These skills are the skills that individuals need to acquire in terms of achieving independence and increasing quality of life. It is necessary for these to acquire proficiency in teaching fields [12][13][14]. When the physical and mental characteristics of each individual are taken into account, how they learn and how they use what they learn differ. While some individuals use what they learn and learn quickly, some individuals need intensive and special education because they have difficulties in learning [15][16][17]. It is important to learn the skills of everyday life in order to reduce the dependence of special needs individuals on other individuals and to be successful in their future lives [18], [19]. [20] emphasized that if individuals with special needs are equipped with the skills of everyday life, their self-confidence will be enhanced and their quality of life will improve. If these skills are not acquired, it is stated that the special needs individuals are not socially accepted by the society [21], [22][23][24][25].

Teaching methods that teachers use in teaching skills and concepts influence their ability to become successful or unsuccessful in their educational life [26] and new approaches and methods are developed in education day by day [27]. The methods and techniques used in teaching provide advantages or disadvantages based on the skills and concepts to be taught [28], [29], [30]. When the relevant literature is examined, it is seen that the teachers prefer traditional teaching methods in the teaching of academic skills in general [31][32][33 [34][35]. According to, [36] teaching skills and concepts to the students with inadequacy should be taught with systematic teaching process.

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When the literature is examined, it is seen that various researches have been done to determine the tendencies and disciplines of post graduate theses in the field of special education [37], [38], [39], [40], [41][42][43][44][45][46][47]. The studies are aimed at examining post graduate theses in different disciplines in various special education fields. In this research, there was no research that examined the post graduate theses on knowledge and skills teaching in special education. It is believed that this study is important in terms of setting up post graduate research orientations in the teaching of skills and concepts in the field of special education, in terms of contributing to the field and shedding light on the areas in which future studies can be conducted. Examination of master's and doctoral dissertations in the field of skills and concept teaching in special education for the recent years can determine the predominant subject areas, methods or sampling characteristics, which can be directed to students who receive under post graduate education. It is thought that it can be a guide for students who have difficulties in deciding on research in post graduate education can to see the frequently or rarely studied subject areas on the field.

The aim of this study is to examine post graduate and doctoral theses made with skill and concept education in the field of special education in Turkey between 2010-2016 and to reveal the research trends of the skills and concept teaching studies.

In response to this main objective, the following questions have been sought.

The special thesis on skills and concept teaching in the field of special education included in the YÖK National Thesis Databases.

1. Levels and Distribution of years of publication
2. Distribution of methods according to years
3. Distribution of levels according to methods
4. Distribution of the levels according to the data collection tools used
5. Distribution by sampling group
6. Distribution by sample size
7. Distribution of data analysis method by years and levels
8. How is the distribution of topics for years and levels?

Limitations

The sample of the study constitutes master and doctoral theses published in YOK Thesis between 2010-2016. The YOK has been searched with the key words of skill and concept teaching in skills teaching, concept teaching and special education in the thesis search engine.

MATERIALS AND METHODS

In this study, content analysis method was used from qualitative research methods. Content analysis, widely used in social sciences and widely used in qualitative research, is a technique that is coded and summarized based on a set of rules [48]. The basic process of content analysis is to compile and interpret data that are similar to each other in a way that the reader can understand these terms and concepts collected and gathered together on the basis of certain themes and concepts [49].

Data sources

In this study, post graduate dissertations on skill and concept teaching in special education, which was published as a full text between 2010-2016 in YOK National Thesis Database in Turkey, were included Theses included in the scope of the study are 79 Master of Science (MSc) and 17th Doctoral Thesis. Firstly, the theses published on the skills and concept teaching in the special education which is included in the Higher Education Thesis Database by YOK have been determined by the researchers and the master and doctorate theses published in these theses in the last 7 years have been investigated. While the theses were determined, a list of theses related to the skills and concept teaching in the YOK National Thesis Database was firstly listed in the field of special education and after the theses including the key words "skill, concept, concept teaching, skill teaching" were added to the list. As a result of the study, between 2010 and 2016, 96 studies on skills and concept teaching in the field of special education were reached.

Data collection tool

In this study, "Thesis Classification Form" developed by [50] was used as data collection tool. The form consisting of 5 parts was examined by three people who were teaching members in the field of educational sciences and the scope of the form was validated. The form basically consists of five parts which are method of thesis, method of data collection, sample / sample size and data analysis methods. The scope of the form is validated [50].

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Analysis of data

In the scope of the study, data obtained from master and doctoral theses analyzed by content analysis method were analyzed using descriptive statistical method. Each thesis was examined using the Thesis Classification Form and then analyzed in SPSS 20 program. Percentages and frequencies of data were calculated to reflect the purpose of the study with respect to the data and the response to the questions constituting the sub-objective. The results collected at the end were put in tables.

RESULTS

Findings and comments

The findings and interpretations obtained from the statistical analysis of the data collected according to the general and sub-objectives of the study are included in this section. Frequency and percentage values of the theses studied are given in [Table 1].

Table 1: Level of theses examined and distribution according to prepared years

Year	Masters		Doctorate		Total	
	f	%	f	%	f	%
2010	8	8.3	0	0	8	8.3
2011	14	14.6	3	3.1	17	17.7
2012	12	12.5	4	4.2	16	16.7
2013	7	7.3	1	1.0	8	8.3
2014	10	10.4	2	2.1	12	12.5
2015	16	16.7	3	3.1	22	22.9
2016	12	12.5	4	4.2	16	16.7
Total	79	82.3	17	17.7	96	100

8 (8.3%) of the 79 post graduate theses examined in Table 1 were studied in 2010, 14 (14.6%) in 2011, 12 (12.5%) in 2012, 7 (7.3%) in 2013, 10 (10.4%) in 2014, 16 (16.7%) in 2015 and 12 (12.5%) in 2016. It was determined that 3 out of 17 doctoral theses (3.1%) were made in 2011 and 4 (4.2%) were made in 2012 regarding skills and concept teaching in special education. In 2013, when there was no doctoral dissertation written and in 2010 only 1 (1.0%) thesis was written and this number increased in other years. Frequency and percentage values of the research design according to years are presented in [Table 2].

Table 2: Frequency and percentage distributions of methods of masters thesis according to Years

Year				Quantitative			Qualitative		Mixed Model	
	Real Experimental	Descriptive scanning	Relational Search	Single Subject Research	Descriptive and relational screening	Causal and relational screening	Case study	Action Study	Explicit mixed model	Total
	f %	f %	f %	f %	f %	f %	f %	f %	f %	f %
2010	0 0.0	1 1.0	0 0.0	6 6.3	0 0.0	0 0.0	0 0.0	0 0.0	1 1.0	8 8.3
2011	0 0.0	2 2.1	0 0.0	10 10.4	1 1.0	1 1.0	0 0.0	0 0.0	3 3.1	17 17.7
2012	1 1.0	5 5.2	2 2.1	7 7.3	0 0.0	0 0.0	0 0.0	0 0.0	1 1.0	16 16.7
2013	1 1.0	0 0.0	1 1.0	5 5.2	0 0.0	0 0.0	0 0.0	0 0.0	1 1.0	8 8..3
2014	0 0.0	0 0.0	0 0.0	11 1.5	0 0.0	0 0.0	1 1.0	0 0.0	0 0.0	12 12.5
2015	1 1.0	2 2.1	2 2.1	13 3.5	0 0.0	0 0.0	1 1.0	0 0.0	0 0.0	19 19.8
2016	0 0.0	0 0.0	1 1.0	11 11.5	0 0.0	0 0.0	2 2.1	1 1.0	1 1.0	16 16.7
Toplam	3 3.1	10 0.4	6 6.3	63 65.6	1 1.0	1 1.0	4 4.2	1 1.0	7 .3	96 100

As seen in [Table 2], when the research designs of the theses examined according to the years are analyzed, it is seen that the single subject research model from the quantitative research methods is used more frequently than the other research models. When the same table is considered, the model of action research is used only in 2016, the descriptive and relational model and the causal and relational screening model are only used in 2011.

Table 3: Frequency and percentage distributions of Thesis levels according to methods

Method		Masters		Doctorate		Total	
		f	%	f	%	f	%
	Real Experimental	2	2.1	1	1.0	3	3.1
	Descriptive scanning	9	9.4	1	1.0	10	10.4
	Relational Search	6	6.3	0	0.0	6	6.3
Quantitative	Single Subject Research	54	56.3	9	9.4	63	65.6
	Descriptive and relational Screening	0	0.0	1	1.0	1	1.0
	Causal and relational screening	0	0.0	1	1.0	1	1.0
Qualitative	Case Study	3	3.1	1	1.0	4	4.2
	Action Study	0	0.0	1	1.0	1	1.0
Mixed	Quantitative / Quantitative (Explanatory)	5	5.2	2	2.1	7	7.3
Total		79	82.3	17	17.2	96	100

[Table 3] contains the findings of percentage and frequency analysis of the research design of the post graduate these included in the scope of the research. It is seen that the research designs used in master's thesis are mostly done with single-subject research model included in the quantitative method. The same situation emerges in doctoral theses examined. This finding suggests that mostly quantitative research methods are preferred in master and doctoral theses related to skills and concepts in the field of special education. In addition it was concluded that 3 master's theses, 2 doctoral theses done with qualitative research; and 5 master's degrees done with mixed method. Action research, descriptive and relational screening, and relational and causal screening models were used in more in master's thesis and less in doctorate thesis.

Table 4: Levels of theses Frequency and percentage distributions according to data collection tools

Data Collection Tool	Masters		Doctorate		Total	
	f	%	f	%	f	%
Observation form	49	51	7	7.3	56	58.3
Interview form	6	6.3	0	6.3	6	6.3
Questionnaires / Scales	14	14.6	2	16.7	16	16.7
Observation and Survey	4	4.2	3	3.1	7	7.3
Interview Form and Questionnaire	2	2.1	1	1.0	3	3.1
Observation and Interview Form	1	1.0	2	2.1	3	3.1
Interview Form, Observation and Survey	1	1.0	1	1.0	2	2.1
Alternative Assessment Tools	2	2.1	1	1.0	3	3.1
Total	79	82.0	17	17.7	96	100

In [Table 4], when the data collection tools of the post graduate these were examined, it was determined that the observation form was used in 49 of the master theses examined, the questionnaire / scale was used in 14, and the interview form was used in 6. In the doctoral dissertations examined, it was determined that the usage frequency of the observation form is higher than other data collection tools as it is in the master thesis.

Table 5: Frequency and percentage distributions according to sampling group

Sample	Masters		Doctorate		Total	
	f	%	f	%	f	%
Pre-school	11	11.5	3	3.1	14	14.6
Primary Education	28	29.2	7	7.3	35	36.5
Secondary education	22	22.9	5	5.2	27	28.1
Primary and Secondary Education	2	2.1	0	0.0	2	2.1
Parent	1	1.0	0	0.0	1	1.0
Teacher	8	8.3	0	0.0	8	8.3
Parent and Primary Education	2	2.1	1	1.0	3	3.1
Parent and secondary education	3	3.1	1	1.0	4	4.2
Teacher and parent	1	1.0	0	0.0	1	1.0
Teacher and student	1	1.0	0	0.0	1	1.0
Total	79	82.3	17	17.7	96	100

When we look at the sample group of the theses examined as seen in [Table 5], it is seen that the theses made in the masters and doctorate fields are frequently formed by the students in the sample group. It

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was determined that 35 of the post graduate these studied were primary education, 27 were secondary education and 14 were preschool students.

Table 6: Frequency and percentage distribution according to sample size

Sample Size	Masters		Doctorate		Total	
	f	%	f	%	f	%
1-10	55	57.3	11	11.5	66	68.8
11-30	7	7.3	3	3.1	10	10.4
31-100	8	8.3	2	2.1	10	10.4
101-300 and above	9	9.4	1	1.0	10	10.4
Total	79	82.3	17	17.7	96	100

As seen in [Table 6], When the sample size of the theses included in the scope of the study is examined, it is seen that 66 of the theses examined are for the sample group between 1 and 10 people.

Table 7: Frequency and percent distribution of data analysis methods of post graduate these by Years

	Frequency / standard deviation		Graphic Display		Descriptive and predictive statistics		Quantitative and qualitative analysis		Content analysis		Descriptive analysis (qualitative)		Total	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
2010	1	1.0	5	5.2	1	1.0	1	1.0	0	0.0	0	0.0	8	8.3
2011	1	1.0	10	10.4	3	3.1	3	3.1	0	0.0	0	0.0	17	7.7
2012	3	3.1	6	6.3	6	6.3	0	0.0	1	1.0	0	0.0	16	16.7
2013	0	0.0	6	6.3	2	2.1	0	0.0	0	0.0	0	0.0	8	8.3
2014	0	0.0	11	11.5	0	0.0	0	0.0	1	1.0	0	0.0	12	12.5
2015	0	0.0	13	13.5	4	4.2	0	0.0	0	0.0	2	2.1	19	19.8
2016	1	1.0	12	12.5	2	2.1	1	1.0	0	0.0	0	0.0	16	16.7
Total	6	6.3	63	65.6	18	18.8	5	5.2	2	2.1	2	2.1	96	100

As seen in [Table 7], when the data analysis methods are analyzed according to years, it is determined that the most used analysis method is graphical representation and 13 (% 13.5) theses are used as data analysis method in 2015. However, descriptive analysis (qualitative) method is used only in 4 (4.2%) of the surveys in 2015.

Table 8: Frequency and Percentage distribution of data analysis methods

Sample	Masters		Doctorate		Total	
	f	%	f	%	f	%
Frequency and Standard Deviation	6	6.3	0	0.0	6	6.3
Graphic Display	51	53.1	12	12.5	63	65.6
Descriptive and Estimative	14	14.6	4	4.2	18	18.8
Quantitative and qualitative research Content Analyses	4 2	4.2 2.1	1 0	1.0 0.0	5 2	5.2 2.1
Descriptive Research (qualitative)	2	2.1	0	0.0	2	2.1
Total	79	82.3	17	17.7	96	100

As can be seen in [Table 8], when the data analysis methods of the theses are examined, it is seen that the thesis done in master and doctorate theses shows graphical representation in 63, descriptive and predictive in 18, frequency and standard deviation in 6 and quantitative and qualitative data analysis method in 5. Among the findings obtained are that content analysis and descriptive (qualitative) data analysis are used in 2 theses.

Table 7: Analysis of frequency and standard deviation of the thesis subjects by years

	2010		2011		2012		2013		2014		2015		2016		Total	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Constant time delay procedure	1	1.04	1	1.04	2	2.08	0	0.0	1	1.04	1	1.04	3	3.12	9	9.37
Simultaneous Prompt Teaching	1	1.04	5	5.20	3	3.12	3	3.12	4	4.16	1	1.04	0	0.0	17	17.70
Video Tablet Teaching	0	0.0	0	0.0	0	0.0	0	0.0	4	4.16	4	4.16	2	2.08	10	10.41
Teaching with Social Story and Video Model	1	1.04	0	0.0	0	0.0	0	0.0	0	0.0	4	4.16	1	1.04	6	6.25
Family education programme	0	0.0	0	0.0	1	1.04	1	1.04	0	0.0	1	1.04	0	0.0	3	3.12

Teaching With Behavior Testing	1 1.04	0 0.0	0 0.0	2 2.08	0 0.0	0 0.0	0 0.0	3 3.12
Opinion	1 1.04	1 1.04	2 2.08	0 0.0	1 1.04	1 1.04	0 0.0	6 6.25
Replicate Silencing	0 0.0	1 1.04	0 0.0	0 0.0	0 0.0	0 0.0	1 1.04	2 2.08
Teaching with progressive help	0 0.0	0 0.0	0 0.0	0 0.0	1 1.04	0 0.0	1 1.04	2 2.08
Direct Teaching Method	1 1.04	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 1.04	2 2.08
Gagne and Merrill Teaching Method	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 1.04	0 0.0	1 1.04
State Analysis	1 1.04	0 0.0	0 0.0	1 1.04	0 0.0	2 2.08	3 3.12	7 7.29
Teaching Social Skills	0 0.0	1 1.04	4 4.16	1 1.04	0 0.0	0 0.0	0 0.0	6 6.25
Teaching Language Skills	0 0.0	1 1.04	0 0.0	0 0.0	0 0.0	1 1.04	0 0.0	2 2.08
Teaching with Drama	0 0.0	1 1.04	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 1.04
Activity Programme	0 0.0	0 0.0	0 0.0	0 0.0	1 1.04	1 1.04	1 1.04	3 3.12
Teaching by Peer	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 1.04	1 1.04
Embedded Teaching	0 0.0	0 0.0	1 1.04	0 0.0	0 0.0	0 0.0	0 0.0	1 1.04
Concept Map	0 0.0	1 1.04	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 1.04
Aqua Therapy	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 1.04	1 1.04
Scale Development	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 1.04	1 1.04
Teaching Academic Skills	0 0.0	1 1.04	1 1.04	0 0.0	0 0.0	0 0.0	0 0.0	2 2.08
Scheme Approach	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 1.04	0 0.0	1 1.04
Self Orientation Technique	1 1.04	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 1.04
Picture Exchange Based Education	0 0.0	1 1.04	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 1.04
Non-Formal Reading Inventory	0 0.0	1 1.04	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 1.04
Opportunity Education	0 0.0	1 1.04	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 1.04
Teaching Motor Skills	0 0.0	1 1.04	2 2.08	0 0.0	0 0.0	0 0.0	0 0.0	3 3.12
Teaching Social Thinking Skills	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	1 1.04	0 0.0	1 1.04
Total	8 8.33	17 7.7	16 16.6	8 8.33	12 12.5	19 9.7	16 6.6	96 100

As seen in [Table 7], it is seen that the teaching methods used in special education are used in the teaching of skills and concepts when examining the study subjects of master and doctorate theses examined. The orientation of special education theses about skills and concept teaching between 2010 and 2016 has been achieved as a result of intensive education with video tablet compared to past years.

Table 8: Frequency and standard deviation analysis of trends of thesis

	Masters		Doctorate		Total	
	f	%	f	%	f	%
Constant time delay procedure	9	9.37	0	0.0	9	9.37
Simultaneous Prompt Teaching	1	16.66	1	1.04	17 17.70	
Video Tablet Teaching	8	8.33	2	2.08	10 10.41	
Teaching with Social Story and Video Model	4	4.16	2	2.08	6	6.25
Family education programme	1	1.04	2	2.08	3	3.12
Teaching With Behavior Testing	3	3.12	0	0.0	3	3.12
Opinion	6	6.25	0	0.0	6	6.25
Replicate Silencing	2	2.08	0	0.0	2	2.08
Teaching with progressive help	1	1.04	1	1.04	2	2.08
Direct Teaching Method	2	2.08	0	0.0	2	2.08
Gagne and Merrill Teaching Method	1	1.04	0	0.0	1	1.04
State Analysis	5	5.20	2	2.08	7	7.29
Teaching Social Skills	6	6.25	0	0.0	6	6.25
Teaching Language Skills	1	1.04	1	1.04	2	2.08
Teaching with Drama	1	1.04	0	0.0	1	1.04
Activity Programme	3	3.12	0	0.0	3	3.12
Teaching by Peer	0	0.0	1	1.04	1	1.04
Embedded Teaching	0	0.0	1	1.04	1	1.04
Concept Map	1	1.04	0	0.0	1	1.04
Aqua Therapy	1	1.04	0	0.0	1	1.04
Scale Development	1	1.04	0	0.0	1	1.04
Teaching Academic Skills	1	1.04	1	1.04	2	2.08
Scheme Approach	1	1.04	0	0.0	1	1.04
Self Orientation Technique	1	1.04	0	0.0	1	1.04
Picture Exchange Based Education	1	1.04	0	0.0	1	1.04
Non-Formal Reading Inventory	0	0.0	1	1.04	1	1.04
Opportunity Education	1	1.04	0	0.0	1	1.04
Teaching Motor Skills	1	1.04	2	2.04	3	3.12
Teaching Social Thinking Skills	1	1.04	0	0.0	1	1.04
Total	79	82.30	17	17.70	96	100

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The orientations of the theses studied are given in Table 8. It is seen that 16 theses (16.66%) are about simultaneous clue teaching, 9 thesis (9.37%) with fixed waiting time teaching and 8 theses (8.33%) with video-tablet teaching. In the doctoral theses studied, it was determined that there are two theses in all of the mentioned orientations; teaching with video tablet, social story and video model, family education program, situation analysis and teaching motor skills. The details of the theses are given in the above table.

DISCUSSION AND CONCLUSION

This research was carried out between 2010 and 2016 with the aim of examining the post graduate theses published in YOK National Thesis Database regarding the skills and concept teaching in the field of special education in terms of various variables. When the findings obtained for this purpose were examined, the following results were obtained;

In the study, 79 master's thesis and 17 doctorate theses on the skill and concept teaching in special education were reached. Examining the years of study of theses, it is observed that the number of master's theses on skills and concept teaching increased in 2015. In 2010 there were no doctoral theses on skills and concept teaching, but it was determined that until 2016 there was an increase in the number of studies in this area. In parallel with the findings, it was concluded that the doctoral theses are fewer than the master theses [43], [51], [52], [53].

Based on the study design of the postgraduate theses examined, it was determined that the older child was made by quantitative research methods. Quantitative research is a form of research that quantifies any phenomenon or situation through observation, experimentation, testing, and objectification [54].

When the research designs of the theses examined are analyst edit is concluded that the quantitative research methods are more frequently used than the other research models. A single subject research method is the study of the behavior of a student or a student, under specific circumstances and with repeated measures in the field of special education.

It is called a research that establishes a reliable relationship between dependent and independent variables [55].

More frequent use of single-subject research methods in skill and concept teaching and less use of qualitative or mixed research and it is also seen that the use of the single-tasked research model has increased much more over the years. [46] reached the conclusion in the content analysis research they conducted that the single-item research model was used more than the other research models. This result supports the research findings.

When the data collection tools of the theses examined are analysed it is seen that observation form and questionnaire / scale are used. In a similar study, it was determined that the observation form and the use of questionnaire / scale were used more than the other data collection tools in the study of the master teacher theses not only in special education field studies. Similarly, in the study of post graduate theses in the field of teacher education [50], the observation form and the use of questionnaire / scale were used more than other data collection tools.

When the theses examined were analysed according to the sample group and sample size, it was determined that the sample group was formed mostly by students and the sample size was between 1 and 10 people. When the data analysis methods of the research were examined, it was determined that the data were more graphically analyzed. At the same time it was found that the graphical analysis method has been preferred more over the post graduate theses over the recent years. The data analysis method used in the single subject research method in the field of literature carries the characteristics of sample group and sample size. Given the single-subject research method, the sample group generally varies from three to eight students and the obtained data are analyzed by graphical analysis method [56], [57], [58], [59].

When looking at the subjects of the examined masters and doctorate thesis it has been determined tha there has been an increase in the number of simultaneous clue teaching, fixed waiting time teaching and video-tablet teaching according to years. Similar outcomes were obtained from the study conducted by [47], in Turkey, that the frequency of use of single-subject research models is determined by the fact that inaccurate teaching methods, video model teaching and direct teaching methods are frequently used and their orientations are in this direction. As a result, it was determined that the post-graduate theses related to skills and concepts in the field of special education were more oriented towards teaching and were mostly conducted by single-subject research method.

Recommendations

• Comparisons can be made by examining the distribution of theses on skills and concept teaching in special education according to universities.
• Studies on the titles and theses of thesis advisor can be done.

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- The theses that are studied about skills and concept teaching can be expanded by extending the years.
- It can be compared with research done abroad on skills and concept teaching.

CONFLICT OF INTEREST

There is no conflict of interest.

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ARTICLE

GRADUATE STUDENTS' VIEWS OF TOPIC ATTRIBUTES IN E-BOOKS

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ABSTRACT

Topic interest is one of the factors which influence the quality of reading comprehension in English as a foreign language (EFL) classes. English language teachers encounter a number of problems in teaching reading and by studying the impact of topic interest on reading comprehension they can benefit in terms of the selection of the reading materials. In this respect, it is assumed that when reading materials are chosen in accordance with the interests of the students, their reading comprehension will be fostered. There is a number of research on the issue conducted with elementary and secondary school students; however, there is a need for more research to determine adults' views of topic attributes. Therefore, it is imperative to determine how adults construct what makes a topic interesting for them on a digital reading mode. In order to serve this research purpose fifteen graduate students engaged in a graduate course called Advanced Reading in a teaching department participated in this study. They read online as an extracurricular activity via BookBub. The participants were administered self-reports to elicit their preferences for the topics of e-books they chose to read on BookBub. Thematic analysis of the textual data revealed the themes as topics of occupational development, personal development and popular themes. This study has implications for English teachers and academicians so that they can design their courses in the light of the findings of this study.

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KEY WORDS
EFL; Topic interest; Digital reading mode; Tertiary education; Adult e-readers

INTRODUCTION

In the digital age, students are surrounded by technology both in their daily lives and at school. All fields of education have undergone a massive change due to the influence and incorporation of technology. Hence, the field of English language teaching is no exception. By offering a plethora of resources technology has been a good means in English as a foreign language teaching in general and EFL reading in particular. For many reasons, EFL students find e-books more practical to read. Since e-books enable readers to read on their cell phones, iPads and on computers and since they offer a number of options with just a click on a button, they are preferred over printed texts by some readers. They are especially good for EFL learners since they can be read aloud providing an opportunity for EFL learners to practise intonation and pronunciation.

There are controversial research results concerning digital reading. While some studies suggest that students' reactions to digital reading are negative [1], [2], some research results indicate considerable improvement with regard to EFL learning [3]. Digital reading research has focused on students' attitudes towards e-reading [4], [5], preferences for e-books or printed materials [6], [7], [8], [9], [10], [11] and use of e-books [12], [13] and [14]. Chou [15] indicates that e-book reading research has been concerned with either attitudes of learners or use of e-books, which calls a need for empirical studies which bring in new perspectives into digital reading. In addition, as stated by Putro and Lee [16], little is known about reading interest in the online reading modes. Furthermore, as stated by Chou [15], most research on digital reading has been far from being longitudinal studies and adopted surveys instead. In this respect, this study fills a gap in the relevant literature by evaluating topic attributes of EFL learners on a digital reading mode during a fourteen weeks period. The current study was led by the following research question:

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1. How do adult e-readers construct what makes a topic interesting for them in terms of EFL reading?

Literature review

Snow [17] contends that reading is the reader's meaning making process through his\her interaction with written text. Reading habits of future generations are prone to change due to the development of various online applications. An Amazon report revealed that more e-books than print books were purchased [18]. Digital forms of reading have been gradually taking the place of printed text materials [19]. While social media texts provide an interactive form of digital reading, e-books and PDF files form non-interactive forms [16]. Based on the research findings that undergraduate students spend 9 hours per week on the internet [20] and that 98% of Canadian youth allocates at least one hour or more on the Internet every day, Putro and Lee [16] pose that there is an increasing demand for digital reading.

To meet the literacy demands of the new digital age, integration of technology into educational settings is recommended by the National Council of Teachers of English [21]. Johnson, Adams and Cummings [22] argue that students read and write using new technologies both outside of school and at school to varying degrees. Vasinda and McLeod [23] have found that technology integration fosters reading fluency. As e-books have supportive functions, they can engage young learners and hence, evoke motivation and interest towards the text [24].

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The relevant literature indicates controversial results concerning students' attitudes towards print and online reading modes. Rogers and Roncevic [2]and Lam, Lam, Lam and McNaught [25] for example, have found students' attitudes towards online reading negative. On the other hand, in a study carried out with

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undergraduate students Sun [26] has reported positive attitudes of participants towards extensive reading online. There are positive research results as far as tertiary level EFL learners' uses of e-books are concerned. Chen, Chen and Wey [3] have conducted a study with undergraduate EFL learners to investigate the effects of online reading on their English proficiency. The results of the study indicate that extensive online reading has the potential to improve EFL learners' English at the tertiary level.

Topic interest

Students' interests are greatly valued in the context of foreign language instruction. Interest is critical in terms of reading in foreign language contexts [27]. In order to explain the significance of interest, the compensatory model of EFL reading posed by Bernhardt [28] and [29] may help. Bernhardt [29] states that while half of the reader's performance is affected by literacy in mother-tongue and second language (L2) proficiency, the remaining other half variance in the reader's performance is influenced by interest as well as genre features, motivation, prior knowledge, strategies and engagement.

Interest research displays five reasons for the importance of students' interest [30]. One of the reasons is that interest fosters intrinsic motivation which in turn enhances cognition. Another reason is the fact that teachers make use of interest to bolster learning. Other reasons are identified as the ubiquitous nature of interests and face validity of interest research. The last reason is that interest research unveils the relationship between motivational research and cognition. The second, third and fourth reasons are relevant to this current research study.

Research shows that when students find what they read interesting, they put more cognitive effort into the reading process [31]. As argued by Tobias [30], topic interest triggers deeper comprehension and evokes emotional, personal and extensive network of relevant associations (p. 50). The cognitive aspect of reading such as how the reader thinks and affective aspects, such as the feelings of the reader about what is read are influenced by interest [32].

Theoretical underpinnings

This study is positioned within the Engagement Theory. The Engagement Theory of reading differentiates engaged and disengaged readers and seeks to help teachers find ways to make their students more engaged [33]. This theory poses that engaged readers possess high intrinsic motivation to read, use metacognitive strategies more in their meaning making process of the text and share their reading experiences with others more. Tracey and Morrow [34] argue that the Engagement Theory contains the main elements of Metacognitive Theory but differs from it by highlighting 'motivational, conceptual and social aspects of learning' (p. 65). Andersen and Guthrie [35] have identified 'student choice for both reading texts and responses' and 'the availability of a wide variety of text genres chosen to interest students' as two ways to increase reading engagement.

Book bub

BookBub is a free service working as an e-book discovery site which gives deals for e-books. In the subscription process subscribers are asked to click on the genres they are interested in so that the e-book discovery site can send them deals for books matching their interests via emails. BookBub is compatible with iPhone and iPad and requires İOS 9.2 or later. Before choosing BookBub amongst a number of options, the researcher went through blogs to see the comments of the subscribers of various e-book services. Despite the fact that different kinds of reading services offer alternative opportunities, BookBub is chosen because it is free, easy to use and emails special offers on a daily basis so that e-readers are updated by bringing various books into their attention. Readers are given the opportunity to customize the categories and genres during the sign up process so that the service emails recommendations accordingly. BookBub standardized the online reading experience as well as the e-book options among the participants.

MATERIALS AND METHODS

A case study method was utilized in this study. Such a method was most appropriate for the purpose of this study which aimed to determine the topic interest attributes of graduate students on a digital reading mode. It was taken for granted that young generations were tech-savvy and thus would find reading on a digital mode more engaging. For this reason, BookBub was integrated into an Advanced Reading course for extracurricular reading to see how graduate students constructed what made a topic interesting for them.

Participants' demographics

All fifteen participants were graduate students enrolled in an MA program in a teaching program in a university in north Cyprus. They did not have any problems concerning English language proficiency. The participants participated in this study for extra course credit. Participant age ranged from 23 to 30 years. Nine of them were female and six were male. They were free to choose the platform for BookBub. Most of them (n=12) used their iPhones, few of them (n=2) their iPads and one of them her laptop. All participants

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had experienced reading on a digital mode before. The participants took place in this study with pseudonyms.

Data collection procedures

The qualitative data were collected through self-reports and reflective essays of the participants. Each week they were asked to keep a journal writing the titles of the e-books they chose amongst the e-books offered by BookBub and explaining the reasons for their choices. Additionally, each of them wrote a reflective essay about this e-reading experience at the end of the semester. On average, each student read eight e-books during a period of fourteen weeks.

Data analysis

The self-reports were coded line by line to determine the factors which make e-books interesting for them. The codes were compared and the codes which represented similar factors were placed under certain categories. Later the categories were re-examined for patterns and themes. Similarly, the reflective essays were thematically analyzed. The textual data elicited from the reflective essays were coded and categorized to reveal the themes.

RESULTS AND DISCUSSION

Preference for print or e-books

Although it was not the purpose of this study to determine participants' preferences, the analysis of the qualitative data gathered from the reflective essays revealed that most participants (n=14) preferred e-books over print. Judging by the frequency of occurrence the mostly cited reason was found to be accessibility (n=17), followed by cost savings (n=15), ubiquitous access (n=14), convenience (n=8) and ease of use (n=2). It was found that print books were not within reach most of the time in north Cyprus. Ali, Kaan and Aisha, for example, reported that despite the huge library on the campus, there was not a good enough collection of physical books on their major but the library offered online sources for free so that they were in a way directed to online sources. Sevil and Berk stated that it was not easy to find print books in north Cyprus. As Sevil reported 'There are only few bookstores on the island and they do not usually have source books on their shelves. Such books are brought upon order. We have to order the books that we need but it takes them at least four weeks to bring the books'. Berk noted, 'I buy print books only when the teachers insist that we buy print books. In that case I tell my friends who are going to Turkey to bring the book but it takes time of course'. Meryem told, 'E-books are easier both to reach and to obtain here (north Cyprus)'. Ahmet said, 'Even getting a print book via Amazon is problematic. In order to place an order one has to have a post office box in the Greek side. Even though one has it, it takes twenty days to arrive'. Mehmet reported, 'Print books slow me down. When I read print books I still need a computer to look up the meaning of unknown words using online dictionaries, such as Tureng so e-books are better for me'. Melissa stated, 'Especially when I read literature, I need the help of a study guide like SparkNotes. So, rather than carrying the print book I read the e-book because I use the online sources anyway. Why would I read the print version?' Aylin told, 'I read online because of the supportive functions of e-books'. This finding echoed Maynard and McKnight's [24] result that owing to the supportive functions, e-books were found to be more engaging and motivating. Overall, it was found that the participants were highly positive towards the digital reading mode, which corroborated Sun [26] but failed to go in line with that of Rogers and Roncevic [2] and Lam et al. [25].

All participants complained that print books were very expensive. Ali said, 'We are students and we do not have much money to spend on books. If I need to buy all the books that I have to buy in print versions, I have to spend at least 1-2 thousand Turkish Liras on books in a year'. Meryem reported, 'Using the online services of the library I can download whatever I want for free.' This finding was consistent that of previous research that e-texts were favoured for their costs [36].Ubiquitous access to e-books was another reason for e-book preference. As most participants reported, e-books were within their reach all the time. Melissa, Ahmet and Meryem said, 'We have free Wi-Fi in all restaurants and cafes in north Cyprus. This makes e-books available all the time.' Mehmet told, 'E-books are so handy they can be read anywhere'. Suzi told, 'Even during the breaks I can read my e-book.' Esra pointed out, 'One can forget print books at home but e-books are always with you.' Around half of the participants acknowledged convenience for their e-book preference. Kayra said, 'I do not like carrying books. They are heavy. E-books are practical because I can read them on my cell phone.' Essy told, 'E-books are very well suited for the needs of students.' Ease of use was raised by two participants. As reported by Cansu 'The ease of use is the main thing about e-books. They make my life super easy.' Ahmet said, 'I was not into online texts first. But in north Cyprus most students use them. At first it was difficult for me but once I got used to read them it became very easy'. Only Arda preferred print books because he said he wanted to have a library of his own.

Topic interest attributes

Analysis of textual data gathered from self-reports revealed the most common theme amongst the participants was occupational development followed by personal development and popular themes see [Table 1].

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Table 1: Frequency distribution of topic attributes in the selection of e-books

Themes	Number of participants	%
Occupational development	15	100
Personal development	9	60
Popular themes	3	20
Total	15	100

It was found that the reading interests of graduate students were more or less similar. The fact that all participants went for e-books that would help them in their profession was the mostly employed topic attribute. It was an unexpected finding due to the fact that this reading activity on a digital mode was an extracurricular activity. As the e-book choice was not determined by the instructor and it was left to the participants, it was expected that the participants would read for pleasure more. The underlying reasons for decisions being informed by perceived relatedness to their occupation were explained in the self-reports. Aylin, for example, stated that 'I am in north Cyprus to study and thus I do my best to be a good teacher in the future.' Mehmet said, 'I feel guilty when I read something non-academic or irrelevant to my major. I believe everything I read must be related to my major.' Ahmet complained that 'I am busy all the time doing assignments and so I feel that I have to read more academic books.' Ali told 'I believe I have to follow and keep up with the innovations concerning teaching.' Melissa wrote 'To be employed in a good school I have to be a very good teacher. That is why I am doing my MA. For this reason, I chose e-books that help me be a good English language teacher.' Berk highlights the importance of interest, 'I only find books that are related to my job interesting and I believe reading books for pleasure is a waste of time.' Sevil brought a new perspective by saying 'Reading is not a part of our culture. We read for academic purposes only. So, I choose to read the e-books that are relevant to my field of study.' Aisha told, 'I like reading novels in my free time during summer. Apart from that I read academic books that help me get better in my job.' Kaan wrote, 'When I graduated, I could not find a good teaching job. For this reason, I am doing my MA. During this time I have to improve myself and read more academic books'. Essy and Cansu's decisions were informed by similar reasons to those of Kaan. Essy said, 'I am unemployed. I cannot waste my time. So I have chosen the books to read according to my educational needs as a teacher.' Arda reported 'When I read academic books I am more motivated because I know that it pays off.' Kayra told, 'I choose to read academic books because they give me ideas that I can use while doing homework and practising micro teaching.' Esra said, 'I like reading books related to teaching because I know that in the future I will use the ideas in them.' Suzi reported, 'Of course I chose books about my job because they help me understand my future students and teach accordingly. They also give new ideas.'

Personal development was shown to be the second source of interest in e-books. Aylin wrote how she constructed what made a book interesting by writing 'I find books that teach me something interesting, such as how to communicate with people effectively. I do not like reading for fun'. Ali reported 'I like books that enable me to improve myself as a person.' Melissa said, 'I will be a teacher and I have to be wise enough to help my students'. Berk and Kaan told that they always had good teachers who helped them with their personal problems as well. They took such teachers as examples and thus their second choice was for books on personal development. Arda told, 'I sometimes read books on human relations so that I can build better relationships with people.' Kayra wrote, 'When I have time I like reading how to books, such as how to cope with stress or how to be a happier person. They inspire me.' Esra stated, 'Books which help me discover my own powers, such as The Secret appeal to me.' Suzi said, 'I am interested in self-improvement books.'

Popular themes were the third source of interest which was raised by Ali, Arda and Suzi. Ali wrote he found books on death interesting because of the mysterious nature of death. He said, 'Mysterious things, such as death and UFOs attract my attention.' Arda told, 'From time to time some topics become popular. When Donald Trump won the elections, I read a book on Trump, for example. I do not have time for such books most of the time but I like reading them.' Suzi wrote 'I do not usually read best sellers but when The Da Vinci Code was published, it became very popular. Everyone was talking about it. Thus I read it. If it is a very popular book, I try to read it.'

CONCLUSION

Technology integration into education has not only changed traditional ways of teaching but also the ways students learn. Digital reading offers a new way of reading and graduate students prefer reading e-books over print, a finding affirmed by this study. When analyzed how participants construct what makes a topic interesting for them, it is found that usefulness has taken precedence over any other attributes. To illustrate, e-books that deal with occupational development followed by personal development were deemed interesting. The fact that all participants were grownups and had concerns regarding their future employment played a major role in employing such attributes. This study is a case study conducted with adult graduate students. For this reason, the results cannot be generalized. Further research preferably with large numbers of participants is needed to endorse these results.

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CONFLICT OF INTEREST
There is no conflict of interest.

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ARTICLE

AN OVERVIEW OF ACADEMIC STUDIES WHICH EXAMINED WEB 2.0, SOCIAL MEDIA AND SOCIAL NETWORK

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ABSTRACT

The objective of this study is to provide a description of studies which examined Web 2.0, social media and social network between the years 2011 and 2017. The study uses descriptive survey model and is described by content analysis which is a qualitative research method. "Web 2.0, social media, social networking, social network and Facebook" keywords were used while scanning the articles. The sample of the study includes 141 scientific articles in Turkish language which can be found Google scholar, Dergi Park and Ulakbim Turkish databases. Percentage and frequency values were used in analyzing the data obtained from the studies. The study concluded that literature search and survey studies were conducted on Web 2.0, social media and social network in Turkey although experimental studies were not at desired level, that Facebook, Twitter and YouTube tools were studied in particular, and that the scientific studies examined in the study used/desired to use web 2.0, social media and social network with the purpose of education, communication and rapid sharing of news/information. It is expected that this study will light the way of other researchers who are considering conducting research in this area.

KEY WORDS
Web 2.0; Social Media; Social Network; Content Analysis

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INTRODUCTION

One of the fundamental needs of individuals is the desire to interact with people around them and share their knowledge, feelings and opinions [1]. One important opportunity provided by Web 2.0 applications is that it ensures bi-lateral, simultaneous social interaction and information sharing [2][3][4].

Web 2.0 is an idea which was started as a brainstorm in a conference session, and was first used by Tim O'Reilly in 2004 [5]. According to O'Reilly, this area which is also expressed as the concept of Web 2.0, social media and social network includes new generation internet applications.

The idea of social media, which is the leading most popular tool that creates new media, was developed based on the web 2.0 concept [6]. According to Boyd and Ellison [7] what makes social media environments unique is not that it allows for the users to meet strangers, but that it allows for the users to express themselves. Social media is defined as "the 21st century term which is used with the purpose of communication, cooperation and creative expression, emphasizes the social aspect of internet, and expresses several communication network instruments" [8][9][10].

Today social media is becoming very important and growing in the world in an unprecedented scale, as a result of which it became more complicated. [Fig. 1] gives the "Social Media Map" report prepared by Overdrive Interactive [11] which includes 230 social media tools in 23 categories.

The innovative part of the report which is being published since 2013 is that in 2017 "messaging" category was added. In addition, social networks which are very popular today are included in the report as a separate "networks" category.

As one of the most remarkable technological phenomena, social networks is a type of social media and its past is older than known. Social network term was first used in 1954 by Barnes to define the relation of a person with other persons in his environment. According to Barnes, social networks consist of individuals who are in interaction with each other and bear psychological importance for the person [12].

The first site examples that suit social network definition were "Classmates.com" (1995) and "SixDegrees.com" (1997) sites. Classmates.com allowed for its users to find their past classmates whereas SixDegrees.com allowed for its users to create profile and list friends [13][14].

Today social network sites are member-based and interactive websites which ensure communication between its users through innovative ways such as sending profile information such as username and photograph, sending general or online messages or sharing photograph and videos online [15][16].

The most popular social network site today is Facebook platform which was established in 2004 by Mark Zuckerberg and his friends. [Fig. 2] gives the "Digital in 2017 Global Overview" report prepared by We Are Social and Hoot suite which shows that Facebook social network site has 1.871 billion active uses.

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Fig. 1: 2017 Social Media Map (Overdrive Interactive, 2017).

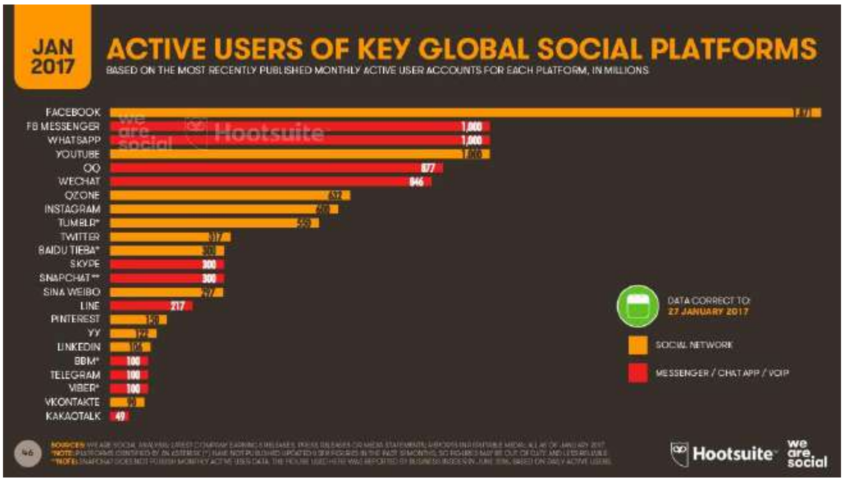

Fig. 2: Digital in 2017 Global Overview (We Are Social, 2017).

Facebook is followed by Facebook Messenger and Whatsapp platform with 1 billion active users. As an instant and simultaneous mobile messaging application, WhatsApp was developed by Jan Koum, and Ukrainian living in the USA, and Brian Acton in 2009. Facebook Company purchased WhatsApp application for 19 billion dollars.

In addition, the report shows that Turkey is at the 7th rank among the 10 most active Facebook user countries whereas Istanbul is in the 5th rank. Although there are several studies in Turkey on Web 2.0, social media and social network, no content analysis has been made on these concepts, which is a deficiency. It is hoped that by describing the studies conducted on Web 2.0, social media and social network, guidance will be provided to the researchers who will study in this area.

Purpose

In this study which aims at describing the studies on Web 2.0, social media and social network conducted in Turkey between 2011 and 2017, answer is sought to the following research questions:

1. What is the distribution of studies conducted on Web 2.0, social media and social network according to years?
2. What is the distribution of studies conducted on Web 2.0, social media and social network according to institutions?

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3. What is the distribution of studies conducted on Web 2.0, social media and social network according to universities?
4. What is the distribution of studies conducted on Web 2.0, social media and social network according to the level of chosen samples?
5. What is the distribution of studies conducted on Web 2.0, social media and social network according to research methods?
6. What is the distribution of studies conducted on Web 2.0, social media and social network according to data collection tools?
7. What is the distribution of studies conducted on Web 2.0, social media and social network according to subjects?
8. What is the distribution of studies conducted on Web 2.0, social media and social network according to types of tools?
9. What is the distribution of studies conducted on Web 2.0, social media and social network according to the usage of the instruments by the sample?

MATERIALS AND METHODS

Model of the research

This study was conducted with descriptive survey model. Survey model aims ad describing an existing situation as it is without trying to create any change [17].

In addition, the study includes content analysis which is a qualitative research model. As a qualitative research method, content analysis is a systematic, impartial and numerical analysis aiming at measuring the variables in a text [18].

The scope of the study

An attempt is made to analyses and explain the articles on Web 2.0, social media and social network from the perspective of a number of variables. When surveying the articles, Web 2.0, social media, social networking, social network and Facebook keywords were used. The limitation of the study is that the articles analyzed in the study are those published in Turkey until the end of May 2017. The sample of the study consists of 141 scientific articles in Turkish language from google scholar, DergiPark and Ulakbim Turkish databases.

Collection of data

In order to examine the articles, researchers created an "Article Information Collection Form". The articles were examined under 9 headings in terms of years, institutions, universities, level of chosen sample, used method, data collection tools, subject area, type of tools and usage purpose of the sample.

Analysis of data

Data obtained from studies examined with content analysis were analyzed using percentage and frequency values. The obtained data are collected in MS Excel file. As regards the data, the frequencies and percentages were calculated which would match each research question. In the end, the data obtained were made into graphics.

RESULTS

Findings

Findings obtained as a result of describing the studies on Web 2.0, social media and social network are presented in graphics below and the especially interesting points are interpreted.

Distribution of studies according to years

[Fig. 3] gives the distribution of studies in the research according to years.

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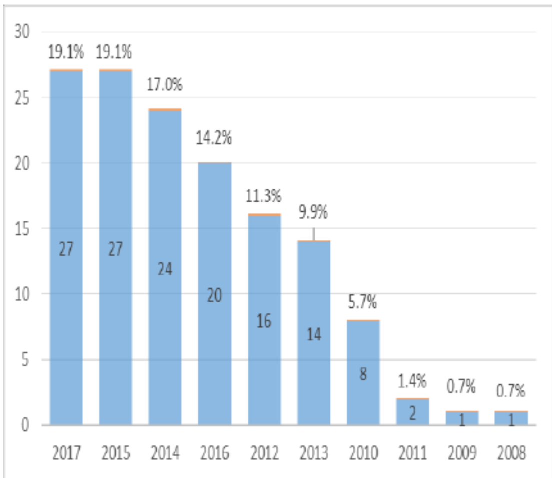

Fig. 3: Distribution of studies according to years.

When [Fig. 3] is examined, it is seen that in the years 2013-14-15, studies on Web 2.0, social media and social network covered by this paper considerably increased.
Distribution of the studies according to their institutions

The distribution of the institutions where the covered studies were conducted is given in [Fig. 4].

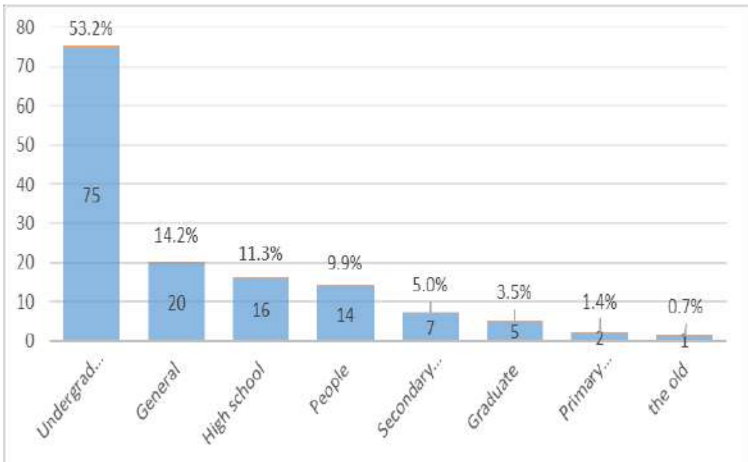

Fig. 4: Distribution of studies according to their institutions.

When [Fig. 4] is examined, it can be seen that more than half of the studies targeted undergraduate level of universities (53,2%). This data is followed by case studies which were conducted without stating any institution with 14.2 percent. Likewise, 9.9% of studies were conducted by individuals shown by "people" data who are chosen from a number of geographical regions of Turkey without stating any institution.

Distribution according to the universities where studies are conducted

The distribution of studies covered in the paper according to the universities where they were conducted is given in [Fig. 5].

An examination of [Fig. 5] shows that especially at Anatolia University (9.2%) studies on Web 2.0, social media and social network covered by the paper are published in Turkish language.

Distribution of studies according to the chosen sample level

[Fig. 6] gives the distribution of the studies in the paper according to the chosen sample level.

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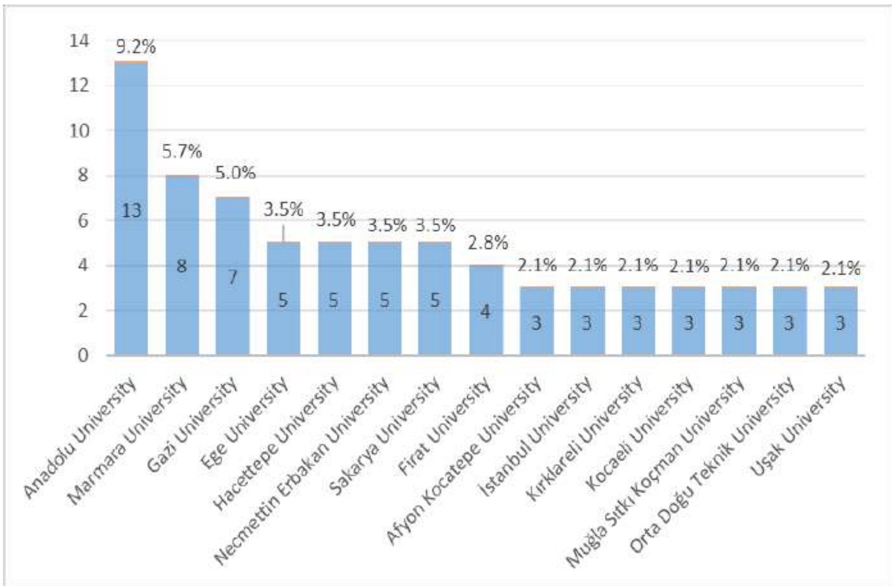

Fig. 5: Distribution of studies according to the universities where they were conducted.

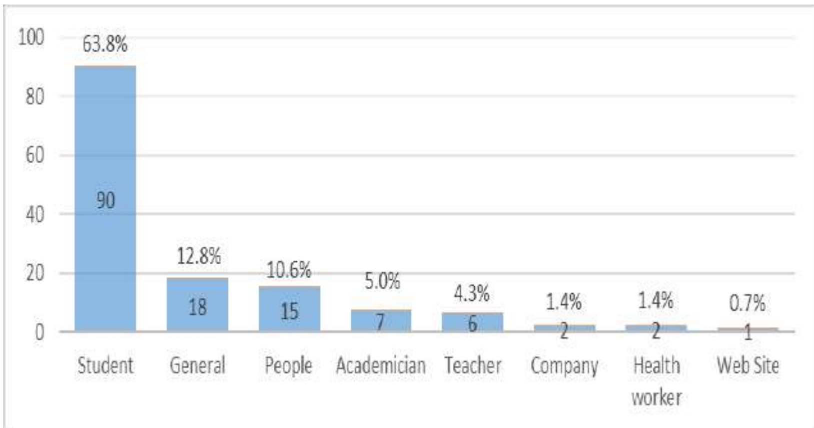

Fig. 6: Distribution of the studies according to the chosen sample level.

When [Fig. 6] is examined, it can be seen that in the studies covered by the paper, most studies on Web 2.0, social media and social network are conducted by taking sample from students (63.8%).

Distribution of studies according to research models

[Fig. 7] gives the distribution of studies covered in the paper according to research models.

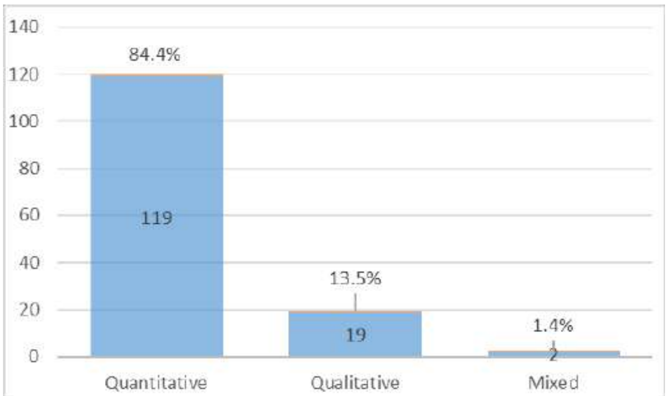

Fig. 7: Distribution of studies according to research models.

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When [Fig. 7] is examined, it can be seen that among the studies covered by the research, studies on Web 2.0, social media and social network are mostly conducted with quantitative methods (84.4%).

Distribution of studies according to data collection tools

[Fig. 8] gives the distribution of studies covered in the paper according to data collection tools.

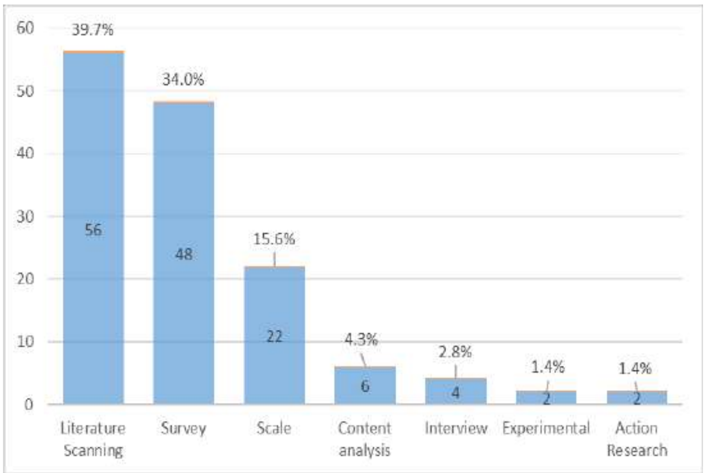

Fig. 8: Distribution of studies according to data collection tools.

When [Fig. 8] is examined, it can be seen that among the studies covered by this paper, the most widely used data collection tools were literature search (39.7%) and surveys (34.0%) and that experimental studies are nearly non-existent.

Distribution of studies according to their subjects

[Fig. 9] gives the distribution of studies covered in the paper according to their subjects.

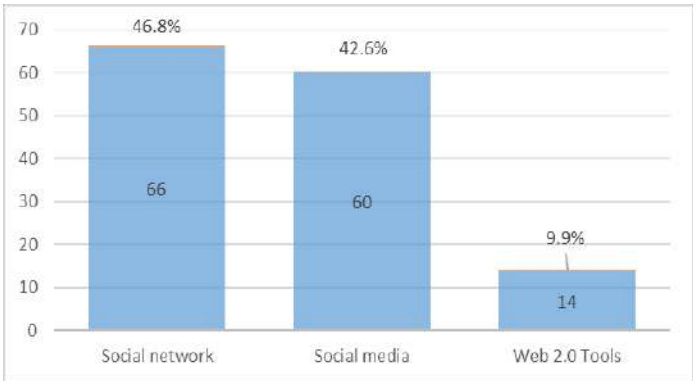

Fig. 9: Distribution of studies according to their subjects.

When [Fig. 9] is examined, it can be seen that 46.8% of the studies covered by the paper examined social networks, 42.6% studies social media and 9.9% dealt with web 2.0.

Distribution of studies according to examined types of tool

[Fig. 10] gives the distribution of studies covered in the paper according to examined types of tool.

When [Fig. 10] is examined, it can be seen that studies covered in this paper especially took Facebook (88,7%), Twitter (57,4%) and YouTube (27,7%) tools as subject and, in addition, WhatsApp was studied by 15.6% as an instant messaging tool.

Distribution of studies according to the usage purpose of the sample

[Fig. 11] gives the distribution of studies covered in the paper according to the usage purpose of the sample.

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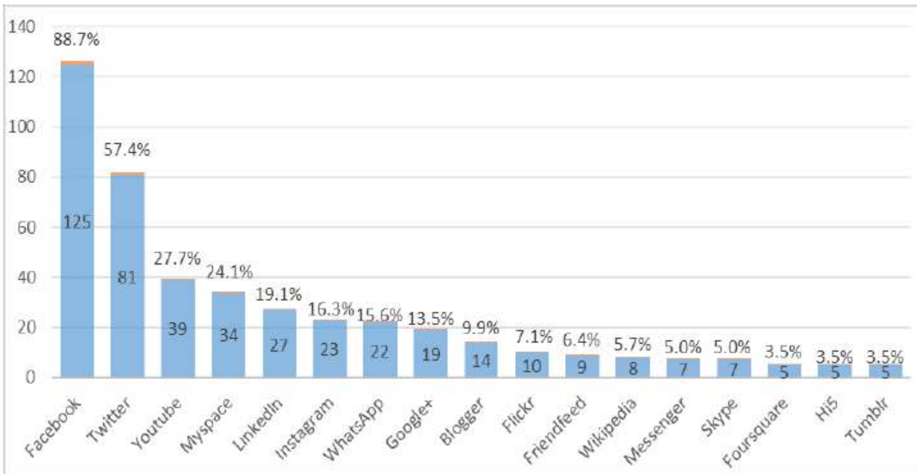

Fig. 10: Distribution of studies according to examined types of tool.

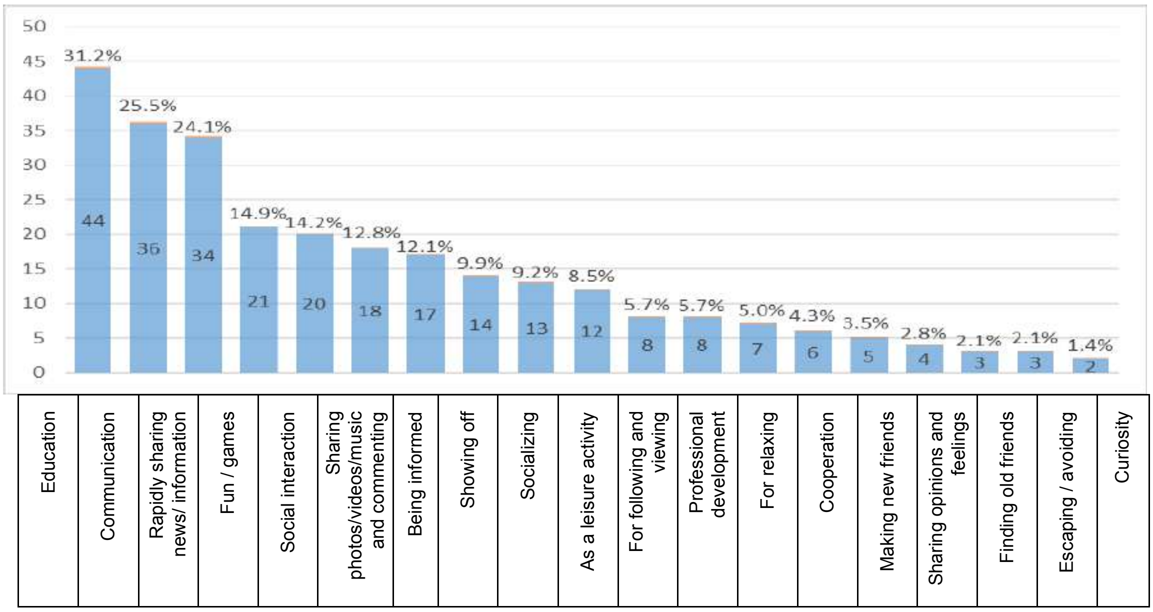

Fig. 11: Distribution of studies according to the usage purpose of the sample.

When [Fig. 11] is examined, it is seen that the sample group chosen in the studies covered by the paper mostly used/wanted to use Web 2.0, social media and social network for education purposes (31.2%) followed by communication (25.5%) and fast news/information sharing.

DISCUSSION

The number of articles published in Turkey between the years 2011 and 2017 on web 2.0, social media and social network are examined. A total of 141 scientific articles are reached. The results are given, interpreted and some recommendations are made.

It is concluded that the number of studies increased considerably in the years 2013-14-15, that undergraduate level of universities were targeted by 53.2% and that especially in Anatolia University (9.2%) many studies were conducted on web 2.0, social media and social network tools.

In the study, it is concluded that especially students were chosen as sample (63.8%) to study web 2.0, social media and social network. There are several studies conducted on students in 2016-2017 in the literature which support this result [19][20][21]. Data were obtained indicating that researchers should also conduct scientific studies on teachers, scholars, managers and families.

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It is concluded that the studies on web 2.0, social media and social network were mostly conducted using quantitative methods (84.4%). Data were obtained indicating that it is needed that researchers who will study in this area should conduct their studies with mixed and qualitative data.

It is concluded that studies mostly used literature search (39.7%) and surveys (34.0) and experimental studies were almost non-existent. More experimental studies can be conducted on web 2.0, social media and social network by researchers.
It is concluded that studies 46.8% of the studies were on social networks, 42.6% were on social media and 9.9% were on Web 2.0. The fact that Facebook social network has the highest number of active users in the world and in Turkey was the most important factor in obtaining this result [22].

It is concluded that studies mostly examined Facebook (88,7%), Twitter (57,4%) and YouTube (27,7%) tools as well as an instant messaging tool, WhatsApp, with 15.6 percent. Today wide communication networks are established with the help of several social media tools such as Facebook, Twitter, LinkedIn, Google+, YouTube etc. which allows for rapid sharing spreading and even debating on any content; these facilities allow for the intense usage of such tools. In addition, scientific studies can be conducted by researchers on mobile instant messaging applications (WhatsApp, Viber, Snapchat etc.) whose popularity is increasing rapidly.

It is concluded that the sample group chosen in the studies used/wanted to use web 2.0, social media and social network mostly for education (31.2%), communication (25.5%) and rapid sharing of news/information (24.1%). Social media has many features that can improve education processes. Users can use social netork structures for different purposes. Social networks can generally be used for effectively sharing materials, following daily events, news, persons or groups, and participating in discussion media to support cooperative learning, researching, discussion skills, questioning, critical thinking and problem solving skills [23][24][25][26].

CONFLICT OF INTEREST

There is no conflict of interest.

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None

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ARTICLE

EXAMINATION OF THE LEARNING STRATEGIES USED BY SECONDARY SCHOOL STUDENTS TOWARDS A MATHEMATICS COURSE IN TERMS OF CERTAIN VARIABLES

Murat Tezer*, Düriye Onbaşı, Hanife Falyalı
Faculty of Education, Nicosia, North Cyprus, TURKEY

ABSTRACT
The aim of this study is to determine whether the strategies of secondary school students towards mathematics are different according to gender and class level variables. The participants of the study are 166 students studying in the 6th, 7th and 8th grades of a college affiliated to the Ministry of National Education in Northern Cyprus. In this study, the survey method, which is one of the quantitative research methods, was used. Also, the four-dimensional mathematics learning strategies scale was used as a data collection tool. The research findings revealed that the most widely used learning strategy by students is 'time and study environment', and the least used strategy is 'effort regulation'. The results of the research show that secondary school students' learning strategies for math classes differ according to gender and class level variables. The results of the research were discussed within the context of the findings in the literature and suggestions were made for practical application

KEY WORDS
Learning Strategies, Mathematics, Gender, Class Level

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INTRODUCTION

In accordance with the rapidly changing scientific and technologic improvements, accessing new information and adapting to current developments has become a necessity. At the present time, as student based learning-teaching increases in popularity, the aim is for individuals to access correct information, to analyse, to comment, to use the information and to discover new knowledge based on this information. This can be possible by learning to learn, which means acquiring new learning strategies. It can be therefore stated that learning strategies can improve learning productivity and augment persistency, while enabling students to learn easier and more effectively; it can be said that this consequently improves learning performance [1].

Kafadar [2] identified learning strategies as the process of the learner interpreting information during their cognitive and affective procedures in order to acquire new information. According to Weinstein [3], learning strategies are behaviours expected to affect a person's process of coding information and that it should be at the centre of learning activities. Based on these definitions, any learning strategies' purpose is to have an effect on learners' selection, obtainment, regulation and compilation of new information.

Additionally, learning strategies provide easy and lasting learning, while also increasing the efficiency of learning and giving the learner the ability to learn independently.

Today, we focus more on learning than teaching. In order for the learning action to be concluded as intended, the most appropriate strategies should be used [4]. Analysing the literature on learning strategies, it can be seen that various classifications have been made on this subject. Although it is possible to encounter different classifications in this field, this paper will focus on the classification of learning strategies conducted by Pintrich and his colleagues [5], [6]. Accordingly, learning strategies are discussed below in three main categories: Cognitive strategies, meta-cognitive strategies and resource management strategies.

Cognitive strategies are addressed under four main headings. These are the strategies of rehearsal, elaboration, organization and critical thinking. Rehearsal strategies are the strategies that occur with mental rehearsal activity, which enable learners to select and acquire the information they will obtain. Elaboration strategies help to create meaningful codes in long-term memory by integrating existing information with new information intended to be learned in long-term memory. Organization strategies enable learners to selectively obtain information that is appropriate for them and to connect with the information they have learned. Finally, critical thinking strategies refer to the purpose of problem solving, which learners apply to previously learned information in emerging situations, to make judgments, to make decisions and to approach new information critically [5].

Metacognitive self-regulation strategies are aimed at ensuring that students make the necessary adjustments by controlling themselves during the learning process. These strategies include three activities: planning, organizing and monitoring. Planning activities consist of goal setting and analysis of the tasks to be performed. Monitoring activities include self-control during reading, collecting attention and asking questions. Monitoring activities involve the actions of testing and performing the necessary adjustments to improve performance. The time and study environment as resources management strategy is one of the main requirements of planned and scheduled study time management. Determining realistic goals and making a program time periods (daily, weekly, monthly) in accordance with these objectives ensures effective use of the study time. Additionally, it is important that the studying environment is

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conducive to the studying behaviour of the learner. In order to achieve this, the studying environment must be free from noise, clutter and distractions. Resource management strategy is the ability to control the study and attention of the learner on a non-engaging and distracting task. Peer collaboration management refers to with the facilitation of learning with peers in order to take advantage of the benefits of group work [5], [7], [8].

The strategy of asking for help in resource management refers to the behaviour of asking teachers or peers if the learner needs help in the learning process on his or her own. The important factor in this context is that that learners are aware when they need help and determine the appropriate person from whom help can be obtained.

At all levels of education, students' educational needs for learning strategies can be met naturally within the educational programs of schools. In primary and secondary education levels in Turkey and in Northern Cyprus, learning strategies are not sufficiently involved in education programs and are irregular. In the literature on this subject, research and satisfactory information have not been found. It is necessary to understand the degree of involvement of learning strategies in school curricula in order to develop students' behaviour in the use of learning strategies. Additionally, there is a need for information on how learning strategies are transferred to students, teachers' competences in this field, and the learning strategies used by students. The present study will therefore fill this gap in the literature.

The main purpose of this research is to determine the learning strategies used by students studying in secondary schools' in 6th, 7th and 8th grade mathematics classes and to determine whether these strategies differ according to gender and class level variables. Based on this basic objective, answers to the following research questions have been sought:

1) What learning strategies do 6th, 7th and 8th grade secondary school students use in mathematics?
2) Do the learning strategies used by those students in mathematics classes differ according to the gender of the students?
3) Do the learning strategies used by those students in mathematics classes differ according to the level of the students?

MATERIALS AND METHODS

In this study, the survey method, which is one of the quantitative research methods, was used to investigate the gender and age variables of the learning strategies used by 6th, 7th and 8th grade secondary school students in mathematics. The survey method examines a particular case that is related to the subject matter. Handling the researched case together with its connections helps to understand it in greater detail [9]. In this study, students ' learning strategies and the situation of these strategies in terms of gender and age variables were determined.

Participants

The participants of the study were students studying in the sixth, seventh and eighth grades of colleges affiliated to the Ministry of National Education of Northern Cyprus in the 2017-2018 academic year. At the end of work, 166 students were identified as participants of the study.

Data collection tool

In order to determine learning strategies, a 68-item “Mathematics Learning Strategies Scale” scale developed by Liu and Lin [10] was used in this study. The Cronbach's alpha coefficient of the scale used in the study was 0.921 [10]. The scale is based on 4 dimensions. The first dimension is cognitive strategies, which includes 3 sub-dimensions: Rehearsal, Elaboration and Organization. The second dimension is meta-cognition strategies. In this dimension, there are two sub-dimensions: Critical thinking and Self-regulation. The third dimension is Non-informational resources management. This dimension includes 4 sub-dimensions: Effort regulation, Time and study environment, Peer-learning and Help-seeking. The last dimension is Informational resources management. This dimension includes two sub-dimensions: Exploratory behavior on the Internet and Communication behavior on the Internet. The sub-dimensions of these dimensions and the items they contain are displayed in [Table 1] below.

The learning strategies scale for the mathematics course is a 5-point Likert type scale, which is based on the following points to determine the level of realization of the relevant materials on the scale [10]: Disagree Completely = 1, Disagree = 2, Indecisive = 3, Agree = 4, Agree Completely = 5.

Analysis of the data

Statistical analysis of data was conducted using the SPSS 23 (Statistical Package for Social Sciences) package program. In order to answer the research question, frequency (f), percent (%), arithmetic mean (X) and standard deviation (Sd) were calculated and the independent samples t-test and one-way analysis of

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variance (ANOVA) tests were applied to compare two and more than two sub groups respectively in the analysis of the data.

Table 1: Mathematics learning strategies scale

Sub-Scale	Factor	Items
Cognitive strategies	Rehearsal Elaboration Organization	3, 11, 22, 33, 44, 55 4, 12, 23, 34, 45, 56 5, 13, 24, 35, 46, 57
Meta-cognitive strategies	Critical thinking Self-regulation	6, 14, 25, 36, 47, 58 15, 26, 37, 48, 59, 65
Non-informational resources management	Effort regulation Time and study environment Peer-learning Help-seeking	17, 28, 39, 50, 61 16, 27, 38, 49, 60, 66, 67, 68 7, 18, 29, 40, 51, 62 8, 19, 30, 41, 52, 63
Informational resources management	Exploratory behavior on internet Communication behavior on internet	1, 9, 20, 31, 42, 53 2, 10, 21, 32, 43, 54, 64

RESULTS

In this section, the findings on the gender and class level variables obtained as a result of the research and the findings on the learning strategies used by the students who participated in the research are reported. Additionally, the findings regarding whether the level of learning strategy differs according to gender and class level variables are given.

The findings and interpretations of the personal information of the sixth, seventh and eighth grade mathematic students in secondary school

In total, 40.4% (n= 67) of the participants were girls and 59.6% (n=99) of the students were boys. Additionally, 24.1% (n=40) of the students were in the sixth grade, 38.6% (N=64) in the seventh grade and 37.3% (n=62) were eighth grade students. According to these data, the majority of the students participating in the survey were seventh grade students.

The findings and interpretations of the learning strategies used by the students in the sixth, seventh and eighth grade Mathematics courses in secondary schools

The results of the students' learning strategies are given in [Table 2]. In this study, it was determined that the students who participated in the study were frequently using the organization strategy with an average of 28.49 (from cognitive strategies), the self-regulation strategy with an average of 28.69 (from meta-cognitive strategies), the time and study environment with an average of 31.40 (from non-information resource management strategies), exploratory behavior on internet with an average of 23.93 (from information resources management). Furthermore, it was identified that the students who participated in the study were using elaboration less frequently, with an average of 23.83 (from the cognitive strategies), critical thinking strategy with an average of 23.54 (from the meta-cognitive strategies), Effort regulation strategy (from the non-information resource management strategies) with an average of 20.42 and communication behaviour on the internet (from the information resource management strategies) with an average of 21.97. With an overview shown in [Table 2], it can be seen that the most used strategy by the students is the Time and study environment and the least used us the Effort regulation strategy.

Table 2: Levels of using learning strategies of students

Dimensions	Sub-Dimensions	$\bar{X}$	*Sd*
Cognitive Strategies	Rehearsal	23.87	3.97
	Elaboration	23.83	3.96
	Organization	28.49	4.21
Meta-Cognitive Strategies	Critical Thinking	23.54	3.99
	Self-regulation	28.69	4.66
Non-Information Resource Management	Effort regulation	20.42	3.29
	Time and study environment	31.40	5.89
	Peer-learning	26.46	5.89
	Help-seeking	24.30	4.60
Information Resources Management	Exploratory behavior on internet Communication behavior on internet	23.93	8.40
	Exploratory behavior on internet Communication behavior on internet	21.97	6.77

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Findings and Interpretations of the Learning Strategies Used by the Students in the Sixth, Seventh and Eighth Grade Mathematics Course in terms of Gender Variables

According to the independent samples t-test. there was only a significant difference in the “research behavior on the internet” strategy according to the to the distribution of the students' learning levels in terms of gender. It was found that there was a statistically significant difference in the average scores for the use of learning strategies by male and female students in this dimension ($p<.05$). In [Table 3], a significant difference in the sub-dimension of “Internet research behavior” was found according to gender. [Table 3] shows that the average for the female students in this dimension is 25.88 and the average for male students is 22.62. This suggests that the dimension of research behavior on the internet is in favor of females.

Table 3: Independent samples t-test results according to gender variables of students' levels of using learning strategies

Strategies	Gender	*F*		*Sd*	t	P
Rehearsal	Female	67	24.39	3.58	1.40	0.17
	Male	99	23.52	4.20		
Elaboration	Female	67	24.03	4.25	0.55	0.59
	Male	99	23.69	3.77		
Organization	Female	67	28.82	3.86	0.84	0.40
	Male	99	28.26	4.43		
Critical Thinking	Female	67	23.48	3.41	-0.16	0.88
	Male	99	23.58	4.35		
Self-regulation	Female	67	29.10	4.17	0.95	0.34
	Male	99	28.40	4.97		
Effort regulation	Female	67	20.55	3.31	0.42	0.68
	Male	99	20.33	3.29		
Time and study environment	Female	67	32.13	5.62	1.32	0.19
	Male	99	30.91	6.04		
Peer-learning	Female	67	27.09	4.92	1.13	0.26
	Male	99	26.04	6.46		
Help-seeking	Female	67	24.25	4.45	-0.11	0.91
	Male	99	24.33	4.72		
Exploratory behaviour on internet	Female	67	25.88	10.53	2.50	0.01
	Male	99	22.62	6.30		
Communication behaviour on internet	Female	67	22.96	6.35	1.55	0.12
	Male	99	21.30	6.99		

The findings and interpretations of the learning strategies used by the students in the sixth, seventh and eighth grade Mathematics lesson regarding the class level variable

One-way analysis of variance (ANOVA) test was performed in order to determine whether the learning strategies used by the sixth, seventh and eighth grade students in the mathematics class differed according to the class level variable. The results of the ANOVA test are reported in [Table 4]. Analysis results show that the students involved in the study have a significant difference in cognitive strategies, meta-cognitive strategies, non-information resource management and learning strategy levels in the information resources management sub-dimensions. In other words, the strategies used by the students vary depending on the class level.

Table 4: Findings on the class level variable of the learning strategies used by the students in the sixth. seventh and eighth grade Mathematics lesson in secondary school

	Source Of Variance	Sum Of Squares	df	Mean Squares	F	p
Cognitive Strategies	Between Groups	1843.870	2	921.935	12.150	.000
	Within group	12368.708	163	75.882		
	Total	14212.578	165			
Meta-Cognitive Strategies	Between Groups	792.266	2	396.133	7.959	.001
	Within group	8112.487	163	49.770		
	Total	8904.753	165			
Non-Information Resource Management	Between Groups	4521.901	2	2260.951	10.303	.000
	Within group	35768.243	163	219.437		
	Total	40290.145	165			
Information Resources Management	Between Groups	2742.094	2	1371.047	8.445	.000
	Within group	26464.364	163	162.358		
	Total	29206.458	165			

$p<0.05$

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In order to determine which class groups differ from the class levels that emerged as a result of the ANOVA test, an ad hoc test was required. The results of the Scheffe test are given in [Table 5].

In terms of cognitive strategies, there was a statistically significant difference between the 6th and 7th as well as the 6th and 8th classes. It is observed that there is no significant difference between the 7th and 8th classes in terms of cognitive strategies. The result showed that there was difference in the dimension of meta-cognitive strategies between the 6th and 8th classes, whereas there was no significant difference between the other groups. It was found that there was a significant difference in learning strategies among the classes 6th, 8th and 7th, 8th in the dimension of non-information resource management. In the information resources management dimension, it was found that there was a significant difference between the 6th and 7th, as well as the 6th and 8th classes. It was found that there was no significant difference between the 7th and 8th classes.

Table 5: Scheffe test multiple comparison findings of the learning strategies used by the sixth. seventh and eighth class students' mathematics lesson in the secondary school

	(I) Class Level	(J) Class Level	Mean Difference (I-J)	Standard Error	P
Cognitive Strategies	6th Grade	7th Grade	5.23125*	1.75576	.013
	6th Grade	8th Grade	8.70806*	1.76662	.000
	7th Grade	8th Grade	3.47681	1.55227	.085
Meta-Cognitive Strategies	6th Grade	7th Grade	2.60625	1.42194	.190
	6th Grade	8th Grade	5.61532*	1.43073	.001
	7th Grade	8th Grade	3.00907	1.25714	.060
Non-Information Resource Management	6th Grade	7th Grade	3.15313	2.98574	.574
	6th Grade	8th Grade	12.43387*	3.00420	.000
	7th Grade	8th Grade	9.28075*	2.63970	.003
Information Resources Management	6th Grade	7th Grade	6.97188*	2.56823	.027
	6th Grade	8th Grade	10.59839*	2.58411	.000
	7th Grade	8th Grade	3.62651	2.27058	.282

*p<0.05

In order to determine if there are differences in the sub-dimensions of the learning strategies in terms of the class level, the ANOVA method was used to analyze the sub-dimensions after the analysis of the main dimensions of the learning strategies. With this analysis, the answers to the question of whether there is a significant difference in class levels in terms of rehearsal, elaboration, organization, critical thinking, self-regulation, effort regulation, time and study environment, peer-learning, help-seeking, exploratory behavior on the Internet and communication behavior on internet are sought. Analysis findings revealed that there was a significant difference between class levels in all sub-dimensions except for communication behavior on the Internet. The results of the Scheffe test to determine which groups have differences are given in [Table 6].

Table 6: Findings on the class level variable in the lower dimensions of the learning strategies used by the students in the 6th, 7th and 8th class Mathematics lesson

	Source Of Variance	Sum Of Squares	df	Mean Squares	F	p
Rehearsal	Between Groups	136.641	2	68.321	4.511	.012
	Within group	2468.443	163	15.144		
	Total	2605.084	165			
Elaboration	Between Groups	268.699	2	134.350	9.459	.000
	Within group	2315.235	163	14.204		
	Total	2583.934	165			
Organization	Between Groups	229.523	2	114.761	6.944	.001
	Within group	2693.953	163	16.527		
	Total	2923.476	165			
Critical Thinking	Between Groups	162.340	2	81.170	5.376	.005
	Within group	2460.943	163	15.098		
	Total	2623.283	165			
Self-Regulation	Between Groups	247.949	2	123.975	6.051	.003
	Within group	3339.762	163	20.489		
	Total	3587.711	165			
Effort regulation	Between Groups	691.809	2	345.905	11.204	.000
	Within group	5032.148	163	30.872		
	Total	5723.958	165			
Time and study environment	Between Groups	454.637	2	227.318	7.019	.001
	Within group	5278.646	163	32.384		
	Total	5733.283	165			
Peer-learning	Between Groups	189.306	2	94.653	4.679	.011
	Within group	3297.634	163	20.231		

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	Total	3486.940	165			
Help-seeking	Between Groups	823.875	2	411.937	6.210	.003
	Within group	10812.396	163	66.334		
	Total	11636.271	165			
Exploratory behaviour on internet	Between Groups	600.705	2	300.352	7.038	.001
	Within group	6956.145	163	42.676		
	Total	7556.849	165			
Communication behaviour on internet	Between Groups	61.329	2	30.665	2.894	.058
	Within group	1727.153	163	10.596		
	Total	1788.482	165			

Table 7: Scheffe test multiple comparison findings of the learning strategies used by the students in the 6th, 7th and 8th class mathematics lesson in secondary school

		(J) Class Level	Significance Difference (I-J)	Standard Error	p
Rehearsal	6th Grade	7th Grade	1.55313	.78436	.144
	6th Grade	8th Grade	2.36613*	.78921	.013
	7th Grade	8th Grade	.81300	.69345	.504
Elaboration	6th Grade	7th Grade	2.23750*	.75963	.015
	6th Grade	8th Grade	3.31210*	.76432	.000
	7th Grade	8th Grade	1.07460	.67159	.281
Organization	6th Grade	7th Grade	1.44063	.81940	.216
	6th Grade	8th Grade	3.02984*	.82447	.002
	7th Grade	8th Grade	1.58921	.72444	.093
Critical Thinking	6th Grade	7th Grade	1.55313	.78317	.143
	6th Grade	8th Grade	2.58387*	.78801	.005
	7th Grade	8th Grade	1.03075	.69240	.333
Self-Regulation	6th Grade	7th Grade	1.05313	.91235	.515
	6th Grade	8th Grade	3.03145*	.91799	.005
	7th Grade	8th Grade	1.97833	.80661	.052
Effort regulation	6th Grade	7th Grade	1.15000	1.11990	.591
	6th Grade	8th Grade	4.82742*	1.12683	.000
	7th Grade	8th Grade	3.67742*	.99011	.001
Time and study environment	6th Grade	7th Grade	.55938	1.14700	.888
	6th Grade	8th Grade	3.73629*	1.15410	.006
	7th Grade	8th Grade	3.17692*	1.01407	.009
Peer-learning	6th Grade	7th Grade	1.70313	.90658	.175
	6th Grade	8th Grade	2.79032*	.91218	.011
	7th Grade	8th Grade	1.08720	.80151	.401
Help-seeking	6th Grade	7th Grade	3.05625	1.64159	.180
	6th Grade	8th Grade	5.79113*	1.65174	.003
	7th Grade	8th Grade	2.73488	1.45133	.173
Exploratory behaviour on internet	6th Grade	7th Grade	3.91563*	1.31670	.013
	6th Grade	8th Grade	4.80726*	1.32484	.002
	7th Grade	8th Grade	.89163	1.16410	.746
Communication behaviour on internet	6th Grade	8th Grade	1.07984	.66015	.265
	7th Grade	6th Grade	.25938	.65610	.925
	7th Grade	8th Grade	1.33921	.58006	.073

*p<0.05

The test results show that there was a significant difference in the Rehearsal dimension between the 6th and 8th grades, in the Elaboration dimension between the 6th - 7th grades and 6th - 8th grades, in the Organization dimension between the 6th and 8th grades, in the critical thinking dimension between the 6th and 8th grades, in the self-regulation dimension between the 6th and 8th grades, in the effort regulation between the 6th and 8th as well as the 7th and 8th grades, in the time and study environment between the 6th and 8th grades, in the peer learning dimension between the 6th and 8th grades. in help-seeking between the 6th and 8th grades and in searching on the exploratory behaviour on the internet dimension between the 6th and 7th as well as the 6th and 8th grades.

DISCUSSION

Secondary school 6th, 7th and 8th grade students use different levels of learning strategies in different categories of mathematics courses. This result is consistent with research in the literature [8], [11], [12], [13]. According to the results of this study, the use of learning strategies in 6th, 7th and 8th grade secondary school students differs according to gender. The use of learning strategies in 6th, 7th and 8th grade secondary school students differs only in the sub-dimension of the “non-information resource management” sub-dimension of the “research behaviour on the internet” category. This difference is in favour of the female students. Studies in the literature support this result [8], [14], [15], [16]. Karalar’s

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[17] concluded that the learning strategies used by secondary school students varied according to their gender.

In his study, Şahin [1] found that his students used time and study environment strategies, which is one of the non-informational resource management strategies and effort regulation strategies, which is one of the least used resource management strategies. In their study, Ilgaz and Gül [18] found that, contrary to the results found in this research, the students used time management strategies the least.

The study shows that learning strategies differ according to class level. Similarly, the study of Karalar [17] found that the learning strategies used by secondary school students in science courses have changed according to the level of the class in which they are studying. Research conducted by Kafadar [2] and Stoffa, Kush and Heo [19] concluded that students used rehearsal strategies. Additionally. in the study of Ilgaz and Gül [18], it was determined that there was a significant difference in the use of self-regulation strategies as the class level increased.

CONCLUSION

In this study, the learning strategies used by the students in the 6th, 7th and 8th grades of secondary school in mathematics were investigated, including whether these strategies differ according to gender and class level variables.

According to the results of this study, the use of learning strategies in the mathematics lesson of the 6th, 7th and 8th grade secondary school students differs according to the level of the class. In this study, the differentiation of learning strategies based on the students' class level is discussed at two levels. It has been determined that there are significant differences in all dimensions of the learning strategies in the classroom level. Similarly, the results of the sub-dimensions also show that all sub-dimensions of learning strategies are different, except for communication behaviour on the Internet.

In this study, it was concluded that the students who participated in the study used the time and study environment strategy and the minimum effort regulation strategy. This result shows that students use a combination of different learning strategies.

Recommendations

Based on the results above, the following recommendations can made to teachers, students, researchers and parents:

- Research results show that students use different strategies. In this context, a teaching strategy should be adopted in accordance with the differences of students' learning strategies.
- The reasons for the differentiation of the use of learning strategies by gender and class level should be investigated and measures taking into account the differences should be reflected in the classroom environment.
- Experimental studies should be conducted to increase the level of the students' use of strategy and they should be reflected in the classroom environment.
- At the beginning of the academic year, students should be informed about the use of strategies and the attitudes towards mathematics lessons; activities should be implemented to increase the use of strategies and to create a positive attitude towards the course.
- Students, teachers and parents should understand the positive impact of the use of learning strategies on success.
- Teacher training and in-service training programs should include the topics of learning strategies.
- Teachers should be a model for learning strategies in the lessons and should be involved in teaching learning strategies in the curriculum.
- Studies that are more comprehensive should be conducted on the relationship between attitudes towards the course and the strategies used, as well as the reasons for applying specific strategies.

CONFLICT OF INTEREST
There is no conflict of interest.

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ARTICLE

VALIDITY AND DEVELOPMENT OF TEACHER ENVIRONMENTAL ATTITUDE SCALE

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ABSTRACT

The purpose of this paper is to develop an attitude scale for usage in the determination of the attitude of teachers concerning environment in the culture of Turkish Republic of Northern Cyprus. The focus of the research was designing and improving Teacher Environment Attitude Scale (TEAS) and determining its validity and psychometric characteristics. The following steps were taken in developing TEAS: Relevant literature on the topic was reviewed in order to determine the items to be included in the scale and essays were written by 530 teachers on environment. Literature review and essays were analyzed and a pool for attitude items was prepared. Expert opinions (n=11) were sought in order to see whether the determined expressions could be used as attitude expressions. Experiment scale was prepared upon consultation with experts,. Pilot application was applied to 500 randomly selected teachers who worked at secondary schools under Ministry of National Education and Culture of TRNC in 2015-2016 academic year. Exploratory factor analysis was calculated based on the obtained data in order to determine structural validity of TEAS. The revised final version of the scale was applied to 440 teachers in order to test the accuracy of the factor structure and Confirmatory Factor Analysis was conducted using the obtained data. As a result, TEAS appeared as a three-dimensional, reliable and valid, Likert-type scale consisting of 15 items. Sub-dimensions are environmental education (5 items, α= .86), environmental problems (5 items, α= .81) and environmental protection (5 items, α= .82).

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Attitude towards environment, Northern Cyprus, Secondary Education, Teacher

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INTRODUCTION

Environment is the medium where living things continue their lives. In different words, it is the integrity consisting of energy, material things and processes which allows for the living things or the community to live and affect them constantly. Environment consists of almost all processes and fields [17].

In terms of its nature, environment can be examined in three sections, namely natural environment, artificial environment and socio-economic environment. Natural environment consists of non-living and living environment. Microorganisms, plants, fungi and animals are examples of living environment. Sunrays, soil, water, air and underground resources are examples of non-living environment. Human beings create artificial environment by using everything they find in natural environment. Villages, cities, roads, industrial establishments created by humans are examples of artificial environment. The environment created as a result of political, economic and social systems of human beings in a certain area are defined as socio-economic environment. Neighborhood relations, education-teaching, working conditions, relations between administrators and the administered are examples of socio-economic environment [35].

Disinger stated that the word "environmental education" dated back to IUCN Conference held in 1948 and that 1972 was a turning point in terms of environmental education [6].

The definition of environmental education provided by Stapp in 1964 created the foundation of studies conducted thereafter. According to Stapp, environmental education aims at training individuals who are knowledgeable about problems in biophysical environment and able to undertake active tasks in order to solve these problems as cited in [4].

At Turkish Environmental Education and Teaching Environmental Strategy and Application Plans Seminar, environmental education was defined as taking active role in environmental problems, active participation in environmental activities, protection of natural, historical, cultural and socio-aesthetic values, imposing environmentally-sensitive, positive, permanent behavioural changes and raising of environmental awareness in individuals [22].

Environmental education is the process of recognition of values between human culture and his bio-physical environment and clarifying necessary concepts in order to develop skills and attitudes. Environmental education also consists of decision-making and solution-producing in topics including environmental quality [45]. If environmental education is examined in its historical context, it can be perceived among such fields as protection education, extra-class education, natural education, education for sustainable future, environmental literacy, resource-based education programs and other related fields [23]. One important feature of environmental education is that it teaches knowledge and skills required for environment in addition to making contribution to the academic success of students [36].

Environmental education is the process of developing attitudes, knowledge and skills and value judgments in order to protect the environment. In addition, it adds environmental-friendly behaviors to individuals and

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indicates their possible outcomes [16]. Environmental education is imposing knowledge, skills and behaviours that allow for the individual to live in harmony with his environment and raise awareness in individuals on several issues such as exploitation of natural resources, energy and water consumption and garbage production who will also take active role in the solution of all kinds of environmental problems [10].

Education is an essential instrument in the process of attitude-changing. Determination of attitudes of teachers and students towards courses is the first step of increasing the quality of education. High-quality environmental education can allow for individuals to adopt positive attitudes and value judgments towards environment. Environmental education has three objectives:

a) Improving the environmental sensitiveness of individuals and the society,
b) Introducing managerial and other processes in the solution of environmental problems, raising awareness in and encouraging individuals for their operation,
c) Making use of and expertizing on scientific-technological developments with a view to solve environmental problems [2].

An education which covers all three objectives as regards environment is in the interest of all individuals of the society. For this reason, environmental education must be directed towards all individuals of the society. The principle of equality should not be disregarded in extending this education to all segments of society. In other words, environmental education must not only be informative; it must also envisage a principle in including individuals in decision-making processes. It is clear that both the state and individuals have their roles in the formation and prevention of environmental problems. Individuals have as much responsibility as the state in environmental topics. Education is necessary and obligatory in order to perform these responsibilities and roles [2].

In order to raise individuals who are sensitive to environmental issues and able to prevent possible problems, environmental education can serve as an interdisciplinary approach which improves the knowledge, skill and attitudes of individuals. Environmental education is necessary in order to be able to analyse the environment, perceive the integrity of nature and the planet, create environmental awareness and gain environmental sensitiveness [11,15,28,47]. In order for this education to be effective, knowledge-level acquisitions in the curriculum should be balanced with affective and kinesthetic acquisitions and room should be provided for the students to be educated in that direction. [14] examined the intensity of environmental literacy elements in science curricula in Bulgaria and Turkey and concluded that curriculum elements mostly consisted of knowledge-level acquisitions but included attitude and behaviour acquisition elements only at negligible level. The science curriculum used in Northern Cyprus previously included affective acquisitions which had positive reflections on the environmental attitudes of pre-service teachers [31].

Effective environmental education emerges as a result of the interaction of individual experiences with nature and life. The experiences people obtain in natural environments allow for them to establish positive relations with the nature. Knowledge and experiences obtained during nature-life interaction creates positive impact on the perception by individuals of their natural environment and ensures that they respect and protect their environment. Environmental education and the relevant educator are essential in order to create positive perceptions. It is necessary to provide opportunity for students to explore the world in a safe environment. For this reason, providing environmental education outdoors, in natural environments, bears importance. Teachers are the people who will organize such learning. Determining the interest and attention of students and supporting their knowledge and skills related to environment is one of the important points that teachers should pay attention to. In order to realize this, teachers have to be friendly to the earth and provide guidance to students during education. Teachers also pay attention to the examples they give in order to avoid development of eco-phobia in students and take active part in ensuring that students love the environment [8,21,44].

Teachers have huge responsibilities in educating individuals who are aware of environmental problems, responsible for solving these problems and conscious [3,5,20,30,33,39,40,41]. For this reason, teachers are expected to provide good role models for their students concerning environment. Finding examples in good role models, students will be raised with positive attitudes towards environment. In order to allow for the education of teachers with environmental awareness, environmental education has to be offered to teachers both before and during their services [19]. Courses which provide teachers with environmental awareness in Northern Cyprus are partly provided in pre-service period. During their term as teachers, 2-3 hours of training are provided by the Ministry without following any certain program in certain periods for which attendance is not obligatory. There is no programmed in-service education in Northern Cyprus which will raise environmental awareness in teachers [31].

The environmental pollution in Northern Cyprus in recent years and negative attitudes and behaviours displayed by individuals towards environment are indicators that individuals are not raised with environmental awareness. Environmental education is a process which begins in family and has to be continued at school. It must be remembered that the families of individuals are also educated by teachers. The students who are educated by teachers with no environmental awareness will naturally lack environmental awareness, too. For this reason, educating teachers with environmental awareness bears extreme importance. It is believed that the developed measuring tool will serve this purpose.

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It is the first environmental attitude scale in Northern Cyprus developed for teachers [32]. Until today most studies on attitudes towards environment have been conducted on students. There are not many studies on the attitude of teachers. The scale will be beneficial in Turkish literature with its environmental education, environmental protection and environmental problems sub-dimensions in environmental attitude studies which will be conducted with teachers and pre-service teachers.

MATERIALS AND METHODS

Two separate samples were used in order to develop TEAS and perform validation. The first sample was used in exploratory factor analysis in determining the validity of the structure of TEAS. The second sample was used in confirmatory factor analysis in order to test the validity of the obtained factor structure.

Sample 1 (n=456)

Sample 1 consists of 500 teachers in total at secondary and vocational technical teaching level of Ministry of Education and Culture of TRNC. Attention was paid to include teachers who wrote essays on the topic beforehand in choosing the sample. After the application, the scale forms which will not be included in evaluation (44 forms which were left blank, where the same option was marked for all questions, or patterns were created with answers) were separated as a result of which sample 1 consisted of 456 teachers in total. Sample 1 consisted of 66.19% female and 33.81% male teachers. 15.35% of teachers were 30 years old and younger, 46.43% were in 31-40 age interval, and 38.22% were 41 years old or older. Of the participant teachers, 37.17% are teaching science/maths, 42.28% are teaching social sciences/Turkish, 12.15% are teaching linguistics and 8.41% are teaching drawing/physical education. In addition, 6.19% of the teachers have 3 years or less experience, 16.23% have 3 to 6 years of experience, 18.58% have 7 to 10 years of experience, 41.29% have 11 to 15 years of experience and 17.71% have 16 years and more experience in teaching profession. The first version of TEAS consisting of 94 items is applied to sample 1. Using SPSS 15.0 version, exploratory factor analysis was conducted in order to identify the dimensions of the scale.

Sample 2 (n=440)

Sample 2 consists of 440 teachers in total who work under the general secondary and vocational technical education office of Ministry of Education and Culture of TRNC. Following exploratory factor analysis, a new sample was chosen so that the scale could be examined with confirmatory factor analysis and interviews were held with 440 teachers with simple random sampling method. While forming sample 2, attention was paid to exclude the teachers in sample 1. Sample 2 consisted of 63.86% female and 36.14% male teachers. 25.45% of teachers were 30 years old and younger, 42.50% were in 31-40 age interval, and 32.05% were 41 years old or older. Of the participant teachers, 32.95% are teaching science/maths, 43.86% are teaching social sciences/Turkish, 14.09% are teaching linguistics and 9.09% are teaching drawing/physical education. In addition, 7.95% of the teachers have 3 years or less experience, 19.32% have 3 to 6 years of experience, 22.73% have 7 to 10 years of experience, 31.82% have 11 to 15 years of experience and 18.18% have 16 years and more experience in teaching profession. The revised version of TEAS consisting of 15 items was applied to sample 2. Confirmatory factor analysis was conducted using AMOS 18 and the factors obtained in exploratory factor analysis were tested.

Instrumentation

The stages followed in validation and development of TEAS are explained below.

Analysıs of teacher's compositions and review of literature and establishing item pool

Literature review and analysis of the essays written by teachers are used in the preparation of TEAS. The stages followed for this purpose are given below. During literature review, the publications on environmental education [4,27,36,45] and scientific studies on environmental education [1,5,8,11,13, 15,28,29,37,38,40,42, 47,48] were examined carefully.

In the next step, compositions written by teachers were analysed using descriptive analysis technique and items obtained from essays were used in creating a pool of items during when literature review was also utilized. The items in the item pool were ordered according to their frequencies and the first form of the questionnaire was prepared with 93 items with high frequency. Each of the 93 attitude items included in the scale which was prepared as testing scale was attached an answering chart consisting of five options. The options were ordered from 5 to 1 and for each expression "3 points" represented medium-level participation, "1 point" represented the degree of attitude at negative end, and "5 points" represented the score of the attitude at positive end. The options matching the items and their score provisions are as follows: 5=strongly agree, 4=agree, 3=neither agree nor disagree, 2=disagree, and 1=strongly disagree.

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The answering options are located at the upper part of the scale and a blank cell is located in the intersection of relevant item and answering option.

Obtaining expert opinion assuring the content validity

At this stage, it was conducted in order to determine the content validity of TEAS. Opinions of field experts (n=11) from science and environmental education were consulted for scope validity of the questionnaire and it was given its final form. After preparing the preliminary testing form of TEAS, it was e-mailed to the experts mentioned above. The experts were asked if TEAS measured attitude towards environment. The experts were also consulted about such problems as incomplete topics or existence of too many items about a certain subject. Considering the answers provided by experts, necessary corrections were made on the scale and TEAS was revised. Thus, the preliminary testing form of TEAS consisting of 93 items was obtained.

Pilot testing

At this stage exploratory factor analysis was conducted in order to determine the dimensions of the scale. Permissions required for conducting pilot application were obtained from Ministry of National Education and Culture. Afterwards, the preliminary testing form was applied to sample 1 consisting of 500 teachers in total under general secondary and vocational technical education department of Ministry of National Education and Culture of TRNC. After the application, the scale forms which will not be included in evaluation (44 forms which were left blank, where the same option was chosen for all questions, or patterns were created with answers) were isolated as a result of which the sample 1 consisted of 456 teachers in total. Afterwards, exploratory factor analysis was conducted in order to determine the dimensions of the scale.

Validating of the structure (confirmatory factor analysis)

At this stage, the factor structure of the scale determined through exploratory factor analysis was tested with confirmatory factor analysis. After conducting exploratory factor analysis, the revised TEAS was applied to sample 2 (440 teachers). AMOS programme was used on the data obtained from sample 2 and the model which was the result of exploratory factor analysis.

Data analysis

In order to determine the factor structure of TEAS, SPSS program was employed to use the data collected from Sample 1. Principal Component Analysis (PCA) was utilized for exploratory factor analysis. Factor structure of TEAS was determined and revised. New data were collected from sample 2 and exploratory factor analysis was conducted in order to verify the factor structure obtained from the previous application using AMOS program.

RESULTS

Initial form of TEAS

In the end of literature review and analysis of essays written by teachers, 5 Likert type TEAS consisting of 93 items was prepared. The scale was organized in the form of 5 Likert type from "strongly agree", "agree", "neither agree nor disagree", "disagree", and "strongly disagree". Experts approved the organization of TEAS in the form of 5 Likert type. The preliminary testing form consisting of 93 items evaluates three attitude components as regards Environment Literature, namely environmental education, environmental problems and environmental protection. The environmental education component was designed in the manner that teachers could evaluate their behaviours on environmental education. Environmental problems component was, on the other hand, designed so that the awareness of teachers could be revealed concerning the environment they are living in and the environmental problems they are facing in universal context. Environmental protection component is designed so that teachers could evaluate the correct behaviors required to obtain sustainable environment at both individual and social level.

EFA; Factor Structure of TEAS Using Sample 1

In order to display the structure validity of the scale, factor analysis was conducted on the 93 items in testing form of TEAS. Before conducting factor analysis, Kaiser Mayer Olkin (KMO) and Barlett tests were used to determine the conformity of the data to factor analysis. For the 456 preliminary testing scale forms consisting of 93 items which were included in evaluation, KMO value was found as .92 and Barlett test result was found as 9426,89 ($p<.005$). KMO value is recommended as .60 minimum so that factor

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analysis could be conducted on data [18]. The .92 KMO value observed in this case is higher than the recommended KMO value. It is observed that the testing form data of the scale are suitable for conducting factor analysis. In the results of basic components analysis and exploratory factor analysis conducted by performing varimax transformation, the variances explained by factors are examined and it was decided that the scale was had a 3-factor structure with eigenvalue higher than 1. The items with factor loads lower than 0.5% were excluded from the scale and the exploratory factor analysis was repeated. In the end of exploratory factor analysis, it was found out that the scale consisted of 38 items and 3 sub-dimensions in total which explained 47.0% of the total variance.

Eigenvalue of factor I was 12.66 (accounted for 32.47 %), of factor II was 3.32 (accounted for 8.52 %) and of factor III was 2.35 (accounted for 6.04 %). The factors were interpreted by considering their size of factor loading, and then named according to conceptual framework used in the recent environmental education literature. [Table 1] summarizes factor names, eigenvalues v, and variances of each factor.

Table 1: Factor names, Eigen values and variances of factors

Factor name	Abbreviation	Eigen Values	% of Variance	% of Cumulative
Environmental Education	Factor 1	12,664	32,472	32,472
Environmental Problems	Factor 2	3,324	8,523	40,995
Environmental Protection	Factor 3	2,354	6,036	47,032

Table 2: Factor loadings and communalities

Item	Factor I	Factor II	Factor III	Communalities
41	0,75			0,616
44	0,79			0,721
48	0,73			0,638
49	0,57			0,439
51	0,59			0,627
38		0,59		0,465
43		0,57		0,386
45		0,61		0,441
57		0,62		0,472
58		0,66		0,528
55			0,71	0,627
73			0,57	0,383
74			0,55	0,418
75			0,55	0,502
94			0,58	0,538

When interpreted in total, results show that the revised scale consisting of 20 items has three factors (dimensions). Factor loads are given in [Table 2]. The items with factor loads below .50 are not included in the final test. Items under factor 1 are items numbered 41, 44, 48, 49 and 51. Thus, factor 1 consists of 5 questions and is called “environmental education”. The items under factor 2 are items numbered 38, 43, 45, 47, 57 and 58. Factor 2 also consists of 5 items which are grouped under the title “environmental problems”. Items under factor 3 are numbered 55, 73, 74, 75 and 94. Factor 3 consists of 5 items under the title “environmental protection”.

CFA; Validation of factor structure using sample 2

In order to verify the factor structure which occurred as a result of exploratory factor analysis, a statistical package of analysis of moments structures (AMOS 18) was used based on the data in sample 2 [7]. As a result of the DFA conducted by the researchers, 23 items were excluded from the scale of 38 items determined by AFA and a final scale consisting of 15 items was created. Results of confirmatory factor analysis are given in [Table 3].

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Table 3: Confirmatory Factor Analysis Goodness of Fit Index

χ²/df	4,20
RMSEA(Root Mean Square Error of Approximation)	0,06
GFI(Goodness of Fit Index)	0,91
NFI(Normed Fit Index)	0,91
CFI (Comparative Fit Index)	0,93

When the indexes given in [Table 3] are examined, according to Hooper, Coughlan and Mullen (2008) an χ^2/df value at or below 5 indicates acceptable fit. The χ^2/df obtained according to the model is 4.20 which shows that the model has acceptable fit. RMSEA value of the model is 0.06 which is below acceptable fit value, 0.08; thus, it has been found out that there is acceptable fit in terms of RMSEA. GFI index which means goodness of fit is above 0.90 which indicates acceptable fit; if it is above 0.95, it shows perfect fit [9]. The GFI value found in the study is 0.91 proving that there is acceptable fit. CFI value gives the difference between null model and the model established with the assumption of no relation between variables and envisages that there is no relation between variables. If the CFI value is above 0.90 it can be claimed that there is acceptable fit [9]. The CFI value calculated for the model is 0.93 which is above acceptable fit value. In addition, the NFI value of the model was found as 0.91 which indicates acceptable fit. In the light of these findings, it can be said that the model has acceptable fit. [Fig. 1] presents the significant path coefficient of three factors model of TEAS validated using CFA.

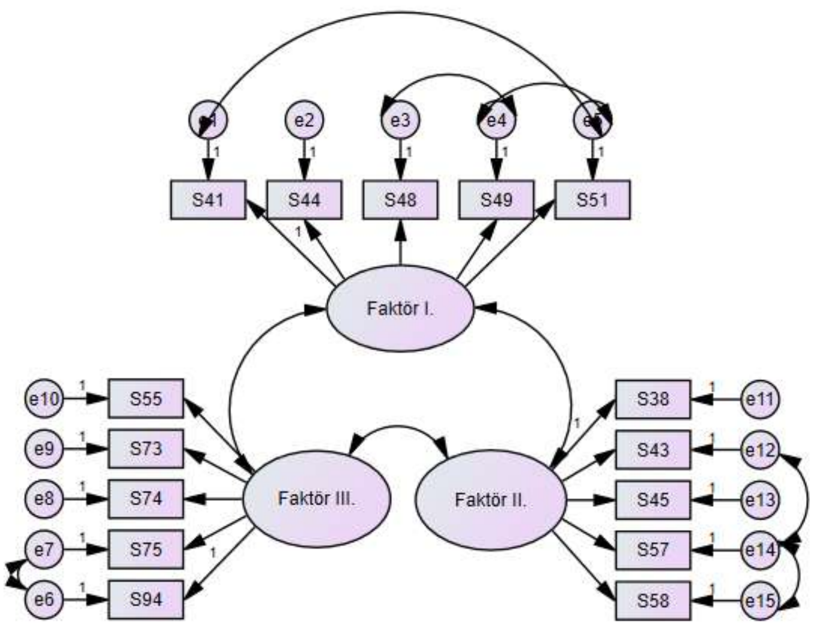

Fig. 1: When the path diagram is examined, it is found out that it consists of three sub-dimensions. The 5 items in the scale constitute Factor I sub-dimension (environmental education), 5 items constitute Factor II sub-dimension (environmental problems) and 5 items constitute Factor III sub-dimension (environmental protection).

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Reliability coefficient(s) for TEAS

SPSS 21 package program was used in calculating the Cronbach's Alpha correlation which gives the internal consistency between the items in the scale for each sub-dimension. Cronbach's Alpha (α) reliability coefficient of TEAS was found as 0.93. According to the literature, this value is considerably favourable in terms of the reliability of the scale (Karasar, 2008). As regards the sub-dimensions of the questionnaire, Cronbach's Alpha (α) reliability coefficient of first factor with five items (environmental education) was found to be .86; of second factor with five items (environmental problems) was found to be .81 and of third factor with five items (environmental protection) was found to be .82.

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Table 4: Cronbach's Alpha and KMO values indicating the reliability and validity of TEAS

Test	Value
Cronbach's Alpha	0,93
Cronbach's Alpha Value of Factor I	0,86
Cronbach's Alpha Value of Factor II	0,81
Cronbach's Alpha Value of Factor III	0,82
Kaiser-Meyer-Olkin	0,92

Final version of TEAS

Final version of TEAS with three sub-scales and 15 items, all measured using a five Likert type scale, is presented in [Table 5].

Table 5: Items in teacher environmental attitude scale on a five point Likert type scale

1. Municipalities must be spearheads in recycling.
2. In Northern Cyprus neither urban nor household wastes are recycled.
3. Environment cannot be protected by giving priority to mass transportation.
4. Oil should not be used and renewable resources should be preferred.
5. Faucets should be turned off while shaving or cleaning teeth.
6. Cooperation should be made with families on the insensitiveness of students towards the environment.
7. Environmental education department should be formed within Ministry of Environment.
8. In Northern Cyprus, administrators do not need environmental education.
9. Students should know why they should protect the environment.
10. Our cultural heritage resources are not part of the environment.
11. Human beings are not the only living things that cause environmental problems.
12. Chemicals used in struggle with mosquitos do not have any detrimental effect on environmental health.
13. Pesticides are effective in the increase of cancer in Northern Cyprus.
14. Throwing away batteries to the nature is not prejudicial.
15. Agrochemicals used uncontrolled don't harm the environment.

DISCUSSION

Attitude scales are among important measuring tools in displaying the attitude towards environment. In the literature various attitude scales can be found which aim at determining the attitude of pre-service teachers towards environment and examining various dimensions of the environment. This study was conducted with the purpose of developing a reliable and valid attitude scale in order to determine the positive and negative attitudes of teachers towards environment. TEAS scale consisting of three factors and 15 items was developed in the form of 5-point Likert type during when the following steps were taken: (1) detailed review of environmental literature and environmental attitude studies and essay-writing by teachers on attitudes towards environment, (2) creating a pool of items and seeking expert opinion for coverage validation (n=11), (3) pilot application of the first version of the scale in order to determine the factor structure of the scale with exploratory factor analysis, (4) using confirmatory factor analysis in order to validate the 3-factor model determined with exploratory factor analysis, and (5) calculating the reliability of sub-dimensions.

The confirmatory factor analysis conducted for validating the three-factor structure determined after exploratory factor analysis indicated acceptable (.50 to .90) and significant ($p < .001$) path coefficients. This means that each item has a significant contribution to the related sub-scale.

In order to determine the fit of the model, the value obtained from the ratio of suggested chi-square to degree of freedom was used. As shown in Table 3, the ratio of chi-square to degree of freedom was found as 4.20. In the literature it is discussed that if this value is 2 or below, the model is a good one; if its value is 5 or below, the model is acceptable in terms of goodness of fit [43,46]. Taking these criteria into consideration, it can be said that the model shows acceptable fit. All indexes are between acceptable limits (NFI, CFI and RMSEA).

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It is stated that RMSEA value below 0.06 shows goodness of fit and below 0.08 shows acceptable goodness of fit [26]. The RMSEA value of the model was found as 0.06 which indicates favorable goodness of fit.

In order to determine the fit of the model, the value obtained by proportioning chi-square to its degree of freedom is mostly used. The first analysis in table 6 shows that the ratio of chi-square to degree of freedom is 4.12. If this value is 2 or below, it is regarded as a good model whereas a value at or below 5 shows that the model has acceptable goodness of fit (34,43,46]. Accordingly, it can be said that the model shows acceptable fit. The fit indexes of the model were found as NFI= 0.91 and CFI= 0.93. If NFI and CFI fit indexes are 0.90 and above, the model has acceptable fit; it is 0.95 and above, it has goodness of fit [34,43]. Accordingly, it can be claimed that the model has acceptable fit.

Cronbach's Alpha coefficient was calculated as 0.93 for all dimensions of the scale (15 items). In terms of reliability, a score not more than .80 shows that the scores obtained by TEAS are reliable [18,24]. In addition, Cronbach Alpha (α) reliability coefficient of first factor with five items (environmental education) was found to be .86; of second factor with five items (environmental problems) was found to be .81 and of third factor with five items (environmental protection) was found to be .82. These satisfactory results are indications of the acceptable properties of the final 15- item version of the TEAS.

The factors created in TEAS and their titles were determined as environmental education, environmental problems and environmental protection. As a result, according to the obtained findings in this study, TEAS was developed as a valid and reliable measuring tool which could be used with the purpose of determining the attitudes of teachers towards environment.

An examination of the Turkish literature shows that attitude scales have been developed in order to measure the attitude of students at various levels towards environment. This scale has been prepared with the purpose of identifying the attitude of teachers towards environment. For this reason it is a contribution and innovation in the research literature. It is a scale determining the tendencies of teachers concerning environmental education, environmental problems and environmental protection as well as their positive and negative attitudes. Researchers can use this TEAS in their future studies with its favorable psychometric characteristics. In addition, a pilot application can be applied with the scale on pre-service teachers studying at universities and its psychometric characteristics can be determined. If it is found fit, an attitude scale which can determine the attitude of pre-service teachers as regards environment will be developed.

CONFLICT OF INTEREST
There is no conflict of interest.

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ARTICLE

THE EVALUATION OF LGBTQ INDIVIDUALS ON SOCIAL AND INDIVIDUAL LIFE PERCEPTIONS

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ABSTRACT

Discrimination based on gender and sexual orientation has been the subject of many studies since the 20th century as one of the international problems that have been evaluated within the scope of human rights in the world. It is not easy to grasp the differences of individuals whose sexual orientation is different (non-heterosexual) and defined as lesbian (L), gay (G), bisexual (B), transsexual (T), and quir (Q). For this, it is necessary to understand how social life and their perceptions are. In fact, it is not possible to understand whether there is discrimination or the reason for discrimination. The main aim of this study is to learn how LGBTQ evaluates themselves in social life and social relations, to try to understand whether they feel differently and to feel that they feel free when establishing social relations. For this purpose, it was tried to reveal the feelings and thoughts of LGBTQ individuals towards social life. In this context, attitudes and behaviors in social life were interpreted. Thus, it is aimed to discuss whether LGBTQ individuals are discriminated against in social life. In order to reach the goal, it has been investigated whether LGBTQ individuals see themselves differently physically and emotionally. In addition, LGBTQ individuals have been questioned about how they behave towards institutions or phenomena considered as authority in social life. Another issue questioned by this research is whether LGBTQ individuals associate their happiness with the events and people around them. How the phenomenon of violence was perceived and whether victims of violence were also discussed. Most of the assumptions highlighted in the results of the study have been confirmed in the light of the questioned problems. LGBTQ individuals see themselves as physically different; LGBTQ individuals do not see themselves as emotionally different; because they have different sexual orientations and gender identities; that they act in conformity with norms of social life and other phenomena considered as authority; they shape their behavior according to their independent decisions, not according to the wishes of others; Although they are not sensitive to the comments made about themselves, they are sensitive to the comments made by their families; It was found that they believed that their happiness was related to other individuals around them. It is assumed that LGBTQ individuals, who are the participants of this study, represent the working universe. The findings and results were evaluated in this direction and suggestions were developed. In addition, it was assumed that the participants gave sincere and correct answers to the questions. As a result of the study, assumptions such as in the study conducted by the same researcher (myself) in the 2011-2013 interval were confirmed. In addition, despite the measures taken with the legal regulations in 2014, it has been revealed that there are still steps to be taken against discrimination on the basis of sexual orientation in Northern Cyprus.

KEY WORDS
sexual orientation, gender identity, social identity, homophobia, homosexuality.

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INTRODUCTION

LGBTQ individuals are marginalized or unaccepted in North Cyprus, as in many other countries. They can be excluded from social life. They're having trouble making friends. This is called homophobia [20]. Homophobia is described as irrational hatred, fear, discontent or discrimination against homosexuals. LGBTQ individuals face prejudice and discrimination in society. In order to identify such negative attitudes and behaviors, researchers have revealed the concept of homophobia. Homophobia is an important issue that concerns every area of society and needs to be studied by different disciplines. [36]. In other words, homophobia is discrimination against non-heterosexual persons, or against other LGBTQ people with other sexual orientations. This discrimination is called homophobia. Those who practice this discrimination are also called homophobic. Homophobia is not only a concept in psychology. The United Nations, the European Union and many other countries of the world have been working to prevent the discrimination of individuals who have different sexual orientation. It is understood that homophobia is a global problem. According to the findings published by Amnesty International, homosexuals are discriminated against in 80 countries, legal barriers restricting their right to exist in social life and even non-heterosexual punishments can be given. (http://tr.wikipedia.org/wiki/Homophobia). Because LGBTQ individuals think that they are not sufficiently accepted in social life, they are building social groups in which they can only be involved. Only in groups can they feel freer. This reinforces the othering. In a sense, they form their own subcultures. Perhaps they feel that they are not perceived differently because of their sexual orientation. They believe that they can protect themselves from personal or social conflicts in the communities they can think of. This election can cause them to be conceptualized as an external group. Through this conceptualization, homophobic ideology is shaped not as a personal trait but as a socio-cultural context [20].

Purpose

The aim of this study is to learn how LGBTQ evaluates themselves in social life and social relations. To understand whether they feel differently and to feel themselves free when they establish social relationships. For this purpose, the feelings and thoughts of LGBTQ individuals towards social life are revealed. Attitudes and behaviors in social life are tried to be interpreted. In this way, it will be possible to make a comparison with the work carried out in 2013 with the same objectives. The next step after this study will be the comparison of the two studies Durust, & Caglar [15].

Problem

The main problems discussed in order to reach the aim of this study are:

a. Do LGBTQ individuals see themselves different?

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b. What is the attitude of LGBTQ individuals to the institutions or phenomena considered as authority in social life?
c. Do LGBTQ individuals associate their happiness with events and people around them?
d. Are LGBTQ individuals afraid to see violence based on their sexual orientation or gender identity?
The aim of the study was to examine the discrimination perspective while looking for problems. It has been paid attention to examine the findings of discrimination with a wide range of dimensions according to gender identity and sexual orientation. The results were also examined from this perspective.

Limitations

a)Hard to Reach Participants

Northern Cyprus is a geography where patriarchal traditions and gender inequality still continue. Neither legal nor social gender-based discrimination has yet to be fully achieved. It has been in use since 1923 and the law that defines homosexuality as a crime to be punished and against nature is annulled in the north of Cyprus in 2014 (https://www.haberturk.com/dunya/haber/916328-kktcde-escinsel-iliski-artik-suc-degil). The northern part of Cyprus was legally free of homosexual relations. The criminal offenses were redefined by the amendment to the criminal law. In the new regulation, unnatural sex crimes were listed and the relationship between men and women was excluded. It was envisaged that up to 5 years of imprisonment would be imposed on persons who were found to be homosexual in the previous law. In spite of everything, it is seen that there are still problems in sociopsychological aspects. Reasons for gender-based inequalities support a negative view of sexual orientation. Therefore, non-heterosexual individuals can still be seen in social life with their sexual orientation and gender identity. In such a restrictive and unequal environment, finding the LGBTQ individuals who would not hesitate to present their feelings and thoughts and opinions by participating in the research was the most difficult process in the research.
b) The Working Universe is Not Distinct
Several challenges were encountered to create the working group. It was a fundamental challenge to reach LGBTQ individuals and ask them to answer the questions. The study group was defined as North Cyprus and the participants were reached with the snowball method. For this reason, it was not possible to reach a result that is interpreted with equal distribution in terms of age, nationality, education level, gender identity or sexual orientation.

Assumptions

In the study, the following assumptions were considered:
a. LGBTQ individuals see themselves physically different;
b. LGBTQ individuals do not see themselves as emotionally different;
c. LGBTQ individuals believe that sexual orientation and gender identities are different, so they have the possibility to experience violence;
d. LGBTQ individuals behave in accordance with norms of social life and other phenomena considered as authority;
e. LGBTQ individuals shape their behavior according to their own decisions, not according to the wishes of others;
f. LGBTQ individuals are not sensitive to comments made about themselves, but especially they are sensitive to comments made by their families;
g. LGBTQ believes that individuals' happiness is related to other individuals around them;
h. The LGBTQ responds to the study by representing the study population;
i. It is assumed that the participants gave sincerely and correctly answers to the questions.

SCOPE OF THEORETICAL FRAMEWORK AND FIELD

Article E of the European Convention on Human Rights prohibits not only direct discrimination, but also indirect discrimination. The ban also includes positive discrimination. This situation may be impossible or too difficult for some people to fulfill a condition for everyone to benefit from a right. Although the condition is set for everyone, it may mean lack of rights for some. This is called indirect discrimination (ECHR Article E). On the other hand, the attitude and behaviors created in social life and / or in the legal field towards LGBTQ individuals are discrimination. While discrimination is sometimes easily distinguishable and there are some attitudes; sometimes it is necessary to understand the discrimination of practices and to have a special sensitivity and capacity to evaluate. Therefore, it may be correct to examine discrimination in 3 groups [24].

1. **Direct discrimination:** It explicitly means that a person, group or community is treated unequally by belief, language, religion, gender and / or sexual orientation or ethnicity and similar differences. This unequal treatment; it may include a wide range of forms of discrimination, starting from mockery, humiliation or scolding, to dissemination of hate speech provoking discrimination against these groups.

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2. Indirect discrimination: It refers to attitudes that are difficult to notice, implicitly or indirectly, or sometimes subject to certain groups of discrimination in terms of their consequences, although they do not create any problematic circumstances.

3. **Ignoring:** In society, a life is built without considering the needs of some groups; or a portion of the beneficiaries may be ignored due to differences. In fact, this situation can be considered as a kind of indirect discrimination. In case of neglect, no direct or verbal discrimination occurs directly. However, disregard of those who are not taken into consideration is actually discrimination at this point. When LGBTQ individuals are exposed to homophobic violence in their family life since childhood, they are also subject to various researches. This violence is mainly experienced in the forms of verbal abuse, physical threat or physical violence: 58% of women with different sexual orientations have researches that at least one of these three types of victimization have experienced any period of their lives. 34% of these women were abused by their fathers, 24% by brothers and 15% by their sisters. 30% of males who have different sexual orientation express their violence by their mothers, 23% by fathers, 43% by their brothers and 15% by their sisters. Since sexual orientation is punished by the abusive reactions of parents, relatives and relatives, 26% of gay and lesbian youth say they have been forced to leave their homes.

Until recently, the most common use of LGBTQ, or homosexuality, was known as a pathological disorder that should be overcome by treatment. However, there are scientific data that accept homosexuality as one of the normal appearances of human sexuality. In the period when homosexuality was accepted as a disease, the evaluation of sexual orientation was made to be an identification that could distinguish individuals from others. However, today's researches argue for the correctness of examining the issue both in academic and practical terms in terms of physical and mental well-being of LGBTQ individuals.

Today, it is known that LGBTQ individuals are prone to some physical and mental disorders due to their discriminatory practices and thoughts that they face individually or socially. Therefore, it is considered more important to evaluate the conditions after taking information about the sexual orientation of individuals in any research or practice to be carried out [4].

There are three components of sexual orientation. These are desires, behavior and identity. They may be compatible or incompatible with the individual. The expression "sexual orientation" can still be used incorrectly. In the narrower sense, it was accepted that the person pointed to the tendency to erotic response. The term sexual preference suggests that there is a relationship between desire and choice.
Homosexuality first came to the fore in the second half of the nineteenth century with the introduction of the term paranoria (para: outside; nous: reason), which began to appear from time to time in French literature. During this period, he defined other paranoid disorders called psychiatric disorders, as well as descriptions of homosexuals seeking erotic desire against people of the same sex (Hocaoğlu 2001).
The term heterosexual was later developed for the erotic desire of persons of the opposite sex. Bisexuality was used by Freud to describe the attraction to both sexes. These terms are more commonly used in areas such as sexual desire, gender roles, sexual behavior, personal and social identity, personality type, normality and abnormality, and the presence or absence of mental illness.

MATERIALS AND METHODS

48 LGBTQ individuals participated in this study. 7 questions in the scale are related to the participant profile. The remaining 12 questions were prepared as 5-point Likert scale and LGBTQ aims to determine the social and emotional states of the individuals. The scale used in this study was developed by the researcher and the Corn Bach Alpha value was calculated as 0.9. This means that the reliability of the scale is very good.

The study universe, which lasted about 4 months, is North Cyprus. LGBTQ individuals who are now living in Northern Cyprus are the participants of the study conducted during the study period. All the people who answered the questions were interviewed face to face.
The data collected by the snowball method were analyzed by means of SPSS. The analyzes were carried out in 2 stages:
The first stage was completed by obtaining the percentage values of the participants by revealing the age, gender and sexual orientation, educational status, nationality and place of residence of the participants.
In the second stage, the responses to the 12-point Likert-type scale prepared for the analysis of social life and social relations were evaluated, and the average of the answers and the answers given were tried to be given.

RESULTS

Findings and Reviews About Participant Profile

This study was conducted among 48 LGBTQ individuals. 96% of respondents used valid answers. When the questionnaires with the current response are used to be sorted from older to older, table appears as below.

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Table 1: Distribution of participants by age

Age	Frequency	Percent
0-14.99	4	8,33
15-24,99	10	20,83
25-34,99	17	35,42
35-44,99	4	8,33
45+	11	22,92
Total	46	
Missing	2	4,17
Total	48	100

35,42% of the participants were aged 25-34,99; 22,9% 45+, 20,8% between 15-24,99 years; 8,33% of the participants are aged between 35-44,99 years and 8,33%.

As can be seen from Table 1, most of the participants (87.75%) are older than 15 years. The age range of the participants of the questionnaire covers the periods in which the effects of the parents are reduced and the independent decision-making capacity of individuals is assumed. At these stages, it is argued that it is safe to be able to interpret and give information about the individuals by determining their life habits (PRDD 2009, (4) 31; [22]) (See Table 1).

Table 2: Citizenship status of participants

Citizenship	Frequency	Percent
Turkish Republic of Northern Cyprus (TRNC)	35,00	72,92
Turkey	7,00	14,58
Cyprus Republic	4,00	8,33
TRNC-TR	1,00	2,08
Total	47,00	97,92
Missing	1,00	2,08
Total	48,00	100,00

The citizenship rates of the participants reveal that most of them are citizens of the country where the research is conducted. According to this, 72.92% of the participants are citizens of TRNC and they are directly involved in the culture of the country where the research is conducted. In addition, the most populous group of foreign nationals living in the TRNC are citizens of the Republic of Turkey. In parallel with this, 14,58% of Turkish citizens; 8,33% of Citizens of the Republic of Cyprus and 2,08% of them show that they are both Turkish Republic of Northern Cyprus and Turkish nationals. This study is in parallel with the rates given in the last census in TRNC (http://www.devplan.org/nufus-2011;See Table 2).

Table 3: Distribution of participants in terms of residence

Residence	Frequency	Percent
Turkish Republic of Northern Cyprus (TRNC)	28,00	58,33
Turkey	8,00	16,67
Cyprus Republic	10,00	20,83
Total		95,83
Missing	2,00	4,17
Total	48,00	100,00

It appears that most of the participants reside in the TRNC. According to survey respondents participating in the survey 58.33% of the TRNC which they reside permanently, they live on the borders of the Republic of Turkey provides 16,67's%, 20.83% and found that while from time to time in the Republic of North Cyprus in the South of Cyprus. In this case, it is highly probable that the study will reveal a safe result in terms of the distribution in the universe in which the study was conducted and the findings of the study to reveal the findings in the North of Cyprus (See Table 3).

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Table 4: Distribution by biological gender

Biological gender	Frequency	Percent
Woman	10,00	20,83
Man	36,00	75,00
Total		95,83
Missing	2,00	4,17
Total	48,00	100,00

If we make an evaluation in terms of the biological sexes of the individuals who are participating in the research, 20.83% of the respondents are women, 75% of them are men. This is an important factor for women to express their views explicitly because of the reflection of Islamic life style and patriarchal approaches to culture. Patriarchal life causes discrimination between men and women. Under the influence of this perspective, women are shier than men when they talk about their gender and sexual orientation. For this reason, it is understandable that the rates in the study are such (see Table 4).

Table 5: Participant distribution by sexual orientation

Sexual Orientation	Frequency	Percent
Woman	2,00	4,17
Man	4,00	8,33
Lesbian	4,00	8,33
Gay	20,00	41,67
Bisexual	14,00	29,17
Transexual	1,00	2,08
Travestite	1,00	2,08
Total	46,00	95,83
Missing	2,00	4,17
Total	48,00	100,00

When the distribution of the participants in terms of sexual orientation is examined, 41,67% gay, 29,17% bisexual, 8,33% lesbian, 8,33% male, 4,17% female, 2,08% transgender and 2,08% said they were transvestites (See Table 5).

Findings and Comments Obtained from Responses to Likert Type Scale

In this section, each item in Likert type scale and the answers given to these substances are interpreted.

I enjoy being different from others in many ways:

Most of the 48 LGBTQ individuals surveyed indicated "too many" responses. The mean value of this option is 4,178. According to this result, it can be said that people with different sexual orientations enjoy being different from others in many ways. This result reveals the desire to reveal the difference in their social life and to live their individuality (Kaya, Selçuk, 2007).
Erich Fromm emphasizes that social needs are more important in human life than biological needs. The individual develops dependence on his environment which meets his needs from the first years of his life. This dependency is primarily essential for the maintenance of life, but changes later when individual needs arise when social needs do not coincide. At this stage, the individual, who begins to differentiate, may go on to establish a life according to his / her subjective differences [19].

I respect the authorities I've contacted:

Most of the 48 LGBTQ individuals surveyed indicated "too many" responses. The mean value of this option is 3,91. This shows that LGBTQ individuals generally respect the many people, institutions, or social doctrines they regard as their authority in their environment. Learning respect for authority is a rule of socialization [27]. Authority is actually the power of the position. The existence of the organizations around the individual (social, economic, political etc.) makes the existence of the authorities visible. Because, regardless of the type of organizations around individuals, leaders, leaders or leaders are given the power of authority naturally [29].

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Individuals often respect the authority to protect their interests. He can benefit from authority as a mentor. He / she establishes a relationship with authority together with the group. They can consciously form an alliance to reach common goals [32]. The alliance with the society is one of the conscious alliances. In this way, the individual learns not to be excluded from society.

Early work on authoritarianism in the 1930s revealed that the authority had an over-prejudice against non-self-rigid, over-motivated, over-reassuring attitudes. It was revealed that respect for the authority developed strong group loyalty. It was explained that it was a result of the search for security in the social hierarchy and in this way, it was used to emphasize the extreme values. These values may sometimes refer to characteristics such as nationalism, sometimes traditionalism, sometimes religious beliefs, genders, ethnicities. The ability to accept the naturalness of the escape from the fearful and unsafe environments, and to understand the emergence of an orientation towards the security resources, explains the development of authorities. While authoritarianism was first described as a personality pattern that laid the foundations for early childhood, researchers suggest that authoritarian tendencies express social beliefs and ways of thinking that mature in late adolescence [13]. It would be meaningful to include gender and sexual orientation in the elements listed as values of the authoritarianism claims. There are studies that draw attention to the relationship of identity status and styles with authorities. There are studies showing that age and gender variables affect the relationship with authorities [26].

According to Erich Fromm, the person struggles to get rid of his dependence on his environment and gain his individuality. But in later times, his individualization deprives him of environmental support. At this stage, the individual feels lonely. This is the neck of social authority many times to get rid of loneliness. According to Fromm, none of the human societies have come up with an adequate solution to the conflict faced by the individual in the way of dependency and individualization. However, a humanistic socialist society can give a person the opportunity to gain individuality in solidarity [19].

There is authority at the core of social learning. The model you take is also the authority you imitate. This is as effective as what is considered as authority and what is considered as authority [6].

I have to consider my parents' advice when planning my education:

The mean value of “too many” fort his question is 4,06. This result indicates that LGBTQ people often care about their parent's advice.

Considering the advice of parents is in fact related to both cultural and psychological functioning. Psychological functions occur in a social, cultural and physical environment, which has the effect of identifying, interpreting, and facilitating the coping of problems [10]. In other words, the social and cultural atmosphere in societies closely affects how people can make sense of and understand their lives [30].

According to Pedersen's emphasis on individuality (1987), the case is accepted as general right. However, individuals can sometimes achieve happiness through their contributions to the society in which they live and thus complete the process of self-realization [42]

I think my fate is built with destiny:

The LGBTQ individuals who participate in the survey agree that their fate is built with the fate of their surroundings. This is understood from the mean value of 3.43, which is given to the "too many" response. According to the reviews, individuals in the Eastern and Latin American countries mostly refer to physicians with somatic symptoms. In Western cultures, more expressions such as emotional resentment are expressed . (Marsella, Friedman, Gerrity & Scurfield, 1996; Jenkins,1996). Psychological problems are expressed as internalized anxiety and guilt feelings in the cultures where individuality is at the forefront. In societies where the society is in the forefront, interpersonal problems such as social adjustment disorder are seen. Cimilli in Turkey (2003) studied the relationship of culture and depression conducted by compiling research. It is explained here that Turkish people mostly use somatization as a symptom of depression. To summarize, the expression and meaning of psychological problems in the societies where the individual is at the forefront differs according to the cultures in which the society is at the forefront. Therefore, the type and manifestation of symptoms of psychological problems should also be examined in the context of culture.

I feel comfortable to be rewarded from among everyone:

The answers of 48 individuals were concentrated as a result of “less than average (Mean value is 2,33). Choosing from everyone means being visible. To be awarded from among everyone is also like being deciphered. It is frightening to expose the individual who is a victim of discrimination because of his sexual orientation by the society. For this reason, it is understandable that they choose to be rewarded from among everyone and prefer less.

When Abraham Maslow developed in 1943 and considered a widely accepted "hierarchy of needs", it is not seen as a normal situation to prefer not to be chosen among everyone. LGBTQ individuals consider the need for respect for someone else. This is the step of “the need for respect of others” according to

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Maslow's theory. The fact that LGBTQ individuals look at it negatively is definitely a detail that should be evaluated. Because the reward is brought with respect. Being rewarded from among others facilitates respect and steps towards self-actualization. This convenience is often a step in the social life to provide satisfaction in the individual life. However, LGBTQ individuals, who do not want to stand out of the way and do not want to draw attention, are trying to avoid this step in the Turkish Cypriot community.

My happiness depends on the happiness of those around me:

The 48 individuals participating in the survey sees happiness associated with the happiness of others (Medium frequency mean value is3,05). This result, in spite of everything, is believed to be the tendency of the individual exposed to social development rather than individuality to match his / her happiness with his / her happiness. It can also be claimed that social acceptance is a factor that promotes happiness when the importance of communication between individuals and their families in Northern Cyprus is taken into consideration. The relevance of the happiness of the individuals participating in the survey with the happiness of the people around them is also related to the social qualities of social life.

Feldman's [17] article published in the 1996 Bulletin of Personality and Social Psychology states that happiness is related to the sexes. According to this claim, the effects of cultural encodings on happiness and anger are pointed out. According to cultural coding, women are more prone to happiness and men to anger. It is also noted that these trends are a balancing factor in social life. Satisfaction with the relationship with parents, friends and dating, that is to say that social interactions are positively influenced by happiness. In one of his first empirical work on happiness, Wilson (1967) stated that social interaction is the strongest predictor of happiness. Emmons and Diener [14] also found that there was a significant relationship between positive emotions and satisfaction and happiness in interpersonal relations. Francis (1999, p.6) expresses the strong relationship between happiness and extraversion by saying güçlü happiness is something that can be called continuous extraversion Francis. Psychological well-being is conceptually different from the significant empirical indicators of subjective well-being, such as happiness or life satisfaction [7] [12]. Thus, Ryff (1989a) [38] states that subjective well-being is not ol planned to define the basic structure of psychological well-being öznel (p.1070). Ryff [38, 39] in this model, Maslow (1968) 's self-realization, Allport [1]' s maturation, Rogers (1961) 's fully functioning people and Jung (1933)' s individualization concepts, Erikson[16] ' psychosocial developmental stages, Buhler (1935) 's basic life trends and Neugarten (1973)' s personality change in adulthood and old age characteristics and Jahoda (1960) 's determined by the use of positive psychological health measures.

I often want to do different things, but generally try to do what others want to do:

Most of the answers given by 48 individuals were “less than average” (2,91 mean). This implies that the individual who believes that he / she is not accepted due to his sexual orientation is trying to avoid doing things that he will not be happy and feel comfortable with. This situation causes him to be less active in the social life and avoid relations with the environments he is not used to, and to dislike the relationships and environments he does not know. This situation shows a meaningful parallel with the idea expressed by Erich Fromm in “Escape from Freedom”.

Even if I hate it, I do things that please my family:

Most of the responses of 48 individuals are “medium average” (3,14 mean).
The concept of family is important in the Turkish Cypriot community. For this reason, it is important for LGBTQ individuals to get their family's appreciation and make them happy even if there is an obstacle to their happiness.
It is necessary to share the information that Doğan Cüceloglu quotes from the renowned therapist Virginia Satir and says that each individual should have these innate liberties: The freedom to request and refuse something must be the freedoms that each individual has. The freedom of seeing and hearing (perception) of individuals who grow up in the Turkish Cypriot community, the freedom to express their feelings as they are, the freedom to express their thoughts as they are, and the freedom to develop their own potential in the direction they want, can be restrained in the case of family.

I think I'm physically different from other people:

Individuals participating in the survey often see themselves as physically different. ("average frequency” mean value is 2,99) LGBTQ individuals are dominant in the belief that they are physically different. This situation reveals the fact that LGBTQ individuals often see themselves as different.
In many societies attitudes towards homosexuality are determined by factors such as sexism, tradition and conservatism. This causes homosexuality to be seen as a marginal feature. For this reason, LGBTQ people feel sorry for themselves. They see themselves physically different (Whitley,2001). All this is because of not being different or trying to be like heterosexual women and men. The effect of socially accepted sexual orientation on heterosexuality is great. Generally, it is known that homosexuals face a disregard for others

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and a judiciary that they are unhealthy compared to others. Although some studies aiming to change attitudes towards homosexuality have been made, stereotypes and false beliefs regarding homosexuals still continue [1]. Presence of this information It is very difficult for the LGBTQ individual to view himself as a non-different person. In fact, the researchers state that people's attitudes towards homosexuals are generally negative, but that their prejudices change when they engage in social relations with homosexuals (Journal of Homosexuality, 2001). It is an undeniable fact that, as Hansen [23] said in 1982, the fear or homosexuality of homosexuals still existed in social life with the definition of homophobia.

I think I'm emotionally different from other people:

Most of the responses of 48 different people with sexual orientation were “less than average” (Mean value is 2.56). LGBTQ individuals who define themselves physically differently think that they are not emotionally different. He points out that the belief that his emotional being is close to heterosexuals is dominant.
The life of homosexuals is in many ways similar to the life of heterosexual people. However, the differences they experience and the negative attitudes they face in their social life, have a different developmental task throughout their lives. For example, young people who feel different from others who feel different during their childhood and adolescence, and when they need to begin to express their homosexuality, face serious challenges. ((TUR/03/01/13-02/P13) Project, 2002) However, this does not change the fact that they are human beings, nor do they interfere in their lives as heterosexuals feel emotions.

I have a chance to see violence because I'm different:

LGBTQ individuals think that ”medium frequency“ is a possibility of violence. (3,26 mean). Violence is the reflection of anger and aggression. It shows similar characteristics in different societies and different social structures. This situation can be accepted at this point, which is mainly due to the male-dominated social structure. For this reason, it is important to understand the violence better and to examine the inter-gender power imbalance in both public and private spheres. According to Subaşı and Akın (2004) [41], violence is not affected by age, socio-economic status, religion, ethnic origin. In the Turkish Cypriot community, which shows a closed structure, it is seen that national legislation regulations on the right of non-discrimination based on sexual orientation or gender identity are ineffective when it comes to looking at the causes of violence against LGBTQ individuals (Amnesty International, 2011: 8). In addition, factors such as prejudice in society, fear of unknown, and stigmatization are among the reasons of this violence. The discourse of homosexuality is a disease and should be treated of people who have a voice and who in some cases make opinion leaders in societies clearly reveals the dimensions of prejudice in society against LGBTQ individuals (Amnesty International, 2011: 9).

Being different makes me afraid.

48 LGBTQ individuals participating in the survey live and perceive that they are different. (“More than average” 3,84 mean value).
The reason for the 10th question is that LGBTQ can be a factor for individuals to live in a fearful life and to take part in environments where they feel comfortable while improving their life habits.

CONCLUSION AND RECOMMENDATIONS

a) LGBTQ individuals see themselves physically different from other people around them.
b) LGBTQ individuals think that they are not emotionally different from other people around them.
c) LGBTQ individuals believe that they are likely to experience violence because of their physical differentiation.
d) LGBTQ individuals respect the authorities in which they relate. This result reveals that they respect both traditions and the law.
e) LGBTQ individuals have divided their lives into two. First, the socially accepted qualities and their life appearing in social life; the second one is not accepted in society, the sexual orientation of the private areas can easily show and live.
f) They respect their parents' opinions about their education and careers
g) LGBTQ individuals are reluctant to express their sexual orientation.
h) While LGBTQ individuals cannot think of their existence differently from the existence of individuals around them, they see their happiness related to the happiness of others.
i) Scientific research on LGBTQ individuals in North Cyprus is insufficient. A literature review was made for this study, and there was a lack of resources for Northern Cyprus findings.

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Recommendations

a) The fact that LGBTQ individuals think that they are physically different may be due to the lack of awareness of sexual orientation and gender identities. In order to raise awareness and equitable perspective on these issues in North Cyprus, the findings on gender-based discrimination and sexual orientation may be effective in providing positive developments to the public through the media by supporting them in the legal field and in the formal education system.

b) In the North of Cyprus, both laws and social norms reinforce and support discrimination based on gender and sexual orientation. The constitution and laws are in a position to ignore "LGBTQ individuals in terms of gender and sexual orientation. Gender and gender roles can be made without discrimination in the definition of the family institution in schools. The definition of division of labor in the family also ignores LGBTQ individuals. In line with these determinations, it would be beneficial to implement legal regulations and to provide egalitarian expressions based on gender and sexual orientation to the national education system.

c) Social life is formed by a heterosexist approach. LGBTQ individuals can be regarded as dangers that may disrupt society's morality, even if they do not express their sexual orientation and sexual orientation. Therefore, LGBTQ individuals are the people with the potential to experience violence. In most cases, LGBTQ individuals hide their gender identity and sexual orientation. Although they are not respected, they exhibit attitudes towards social norms, laws and their families. This result suggests that LGBTQ individuals are not in favor of harming social norms or legal peace. To decide to prevent LGBTQ individuals from being seen as a danger; starting from the families of LGBTQ individuals, realizing awareness raising activities based on gender identity and sexual orientation may contribute to the formation of equality in opportunities and outcomes. LGBTQ helps to understand that individuals do not present a threat to social life and development.

d) LGBTQ individuals should be told that they are not individuals who are socially harmful and are not harmful to traditional life. It should be explained that wanting to live their sexuality and romantic feelings freely does not harm the society, but on the contrary, it will preserve family integrity. It can help to contribute to peace in social life. It can be said that the universal declaration of human rights will serve as well as the equality of the results.

e) Their respect for the views of their parents and their careers is the result of their respect for the social authorities. In this sense, it can be said that they are not free in determining their individual decisions and orientations on their education and career choice and development. The expectations and expectations of LGBTQ individuals have not been saturated. They can't feel as equal individuals. For this reason, they shape their future lives in a way that reduces them. This situation may be an obstacle to the individual and his / her family, generally to society and progress. Therefore, it is recommended to increase research on LGBTQ individuals.

f) LGBTQ individuals living in a society that has adopted discrimination based on gender and sexual orientation are particularly afraid of being punished by norms in the North of Cyprus. This fear brings with it the fear of violence. In fact, this situation cannot be deciphered, the community refuses to be in the forefront of being in the forefront or uncomfortable behavior in environments where it does not show clearly reveals. Implementation of regulations to eliminate inter-individual discrimination, both in social perception and in practice, will contribute to the elimination of discrimination against individuals.

g) They try to act according to their environment without planning even when they want to do different things. They try to enter into behaviors and attitudes that support the decision of the majority. So, LGBTQ individuals are not consistent or incompatible. For this reason, instead of living by ignoring or discriminating, work should be done to reveal that they are normal individuals. Within this scope, studies should be carried out in order to remove sexual orientation other than heterosexistism.

h) They said that they did not feel comfortable about being awarded among everyone. It can be said that these feelings of LGBTQ individuals are completely related to sexual orientation differences and fears of violence. They said that they did not feel comfortable about being awarded among everyone. It can be said that these feelings of LGBTQ individuals are completely related to sexual orientation differences and fears of violence. It can also contribute to the acceptance of society.

i) Studies on sexual orientation in North Cyprus are inadequate. This and other studies which are related to individuals with different gender and sexual orientation contribute to both literature and humanity's ability to build an egalitarian life. It is obvious that the results of the studies to be done in many areas of

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life starting from education, will contribute to the social life in relation to individuals' freedom and mental health.

j) Different genders and sexual orientations are open to psychological, social and cultural advice and interactions. With this truly known move, research on LGBTQ individuals with insufficient sexual orientation in the Turkish Cypriot community is insufficient to comply with parental recommendations. The cultural structure in which the society in the Turkish Cypriot community is at the forefront can easily explain the harmony with the structure of the social environment and the construction of a living space combined with the social environment. Therefore, it is very normal and natural for participants to find their fate related to their fate.

In the following periods, more comprehensive and comparative evaluation based on individual sexual orientation is important in terms of achieving the findings and results that will serve the social interests and the lives of individuals.

CONFLICT OF INTEREST

There is no conflict of interest.

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