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Message from Editor

We would like to inform you that 1st issue of the 7th volume of The International Journal of Psychology and Educational Studies (IJPES) has been published. This journal serves as a platform for presenting and discussing the emerging issues on psychology and education for readers. In this issue, IJPES published has 16 articles. Many thanks to all contributors. We also cordially invite you to read are 1st issue of 2020 IJPES. International Journal of Psychology and Educational Studies (IJPES) is an international, peer-reviewed, non-profit, professional scientific journal. IJPES is a journal that accepts manuscripts related to psychology and educational sciences. The journal is published online three times in a year. The article being submitted should be written in English. IJPES publishes research employing a variety of qualitative and/or quantitative methods and approaches in all areas of the education field and psychology. IJPES welcomes articles from different institutions and countries. IJPES is supported by Educational Researches and Publications Association (ERPA).

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Correlates of College Student Engagement: An Internal Replication

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ABSTRACT

Though being behaviorally active in the classroom is associated with attractive outcomes, many college students are disengaged. This study examines potential correlates of classroom engagement. Across two waves of data collection, with the second wave providing an internal replication challenge, three variables were consistently related to active classroom engagement. Higher self-esteem, less texting while driving, and lower externally oriented thinking predicted self-report of classroom engagement. Together, the three variables accounted for sixteen percent of the variance in engagement. Adding a fourth variable, gender, led to twenty percent of the variance in engagement being explained.

Keywords:
classroom engagement; professor-student relationship; replication; gender; race; self-esteem; self-regulation; alexithymia

1. Introduction

High percentages of success in life are attributed, in popular aphorisms, to "just showing up." In the college classroom, however, what students actively do after they show up appears to make a profound difference, and the present study seeks to identify variables that are consistently related to such classroom engagement. When college students are behaviorally active in the classroom, learning and personal development may be enhanced (Wilcox, McQuay, Blackstaffe, Perry, & Hawe, 2016). Classroom engagement influences development of cognitive skills (Kim & Lundberg, 2015), academic achievement (Handelsman, Briggs, Sullivan, & Towler, 2005; Zumbrunn, McKim, Buhs, & Hawley, 2014) and retention and graduation (Braxton, Jones, Hirschy, & Hartley, 2008). Yet, many college students are disengaged in classrooms, and instructors struggle to find ways to connect with them (Broeckelman-Post, Johnson, & Schweback, 2016).

The problem appears to have roots going back to at least secondary school. In high schools, perhaps 40-60% of students are frequently disengaged – not attentive, not effortful, and not interested (National Research Council, 2004). Conner and Pope (2013) suggest that these self-described "robo-students" are often simply "going through the motions" or "doing school" (p. 1426). If anything, the problem of disengagement might accelerate in college. Fritschner (2000) observed 32 college classes multiple times and found that, on average, approximately 20% of the students account for 80% of the classroom discussion activity and that less than a third of students ever participate in a given session.

For the present study, active academic engagement is defined as the self-report of often speaking up in class – asking questions, answering questions, and making comments (Harris, Hines, Kelly, Williams, & Bagley, 2014; Reason, Terenzini, & Domingo, 2006). Several putative correlates are explored in each of two waves of data collection, with the second wave treated as an internal replication. The scholarship of teaching and learning may be particularly susceptible to replication issues (see Ionnidis, 2005), given the relative flexibility in designs

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and measures and given that the complexity of the learning environment is difficult to fully represent in a study. Thus, this internal replication seeks to identify reliable correlates from among the putative candidates reviewed in the following paragraphs.

1.1. Gender

By the time students reach college, males are more likely than females to be behaviorally active in the classroom, but the relationship between gender and academic engagement appears to be influenced by developmental context. Kindermann (2007) studied students in 6th grade and found, across all social groups, the female students were more active academically than the male students. Roorda, Koomen, Spilt, and Oort (2011) conducted a meta-analysis and reported that among preschool to high school students, females were more academically engaged than males. However, the pattern appears to be different in college. Brint, Cantwell, and Hanneman (2007) found that male college students were more academically engaged than female college students across a range of degree programs. Kim and Sax (2009) studied student-faculty interactions in college and similarly found that males interacted and engaged more with faculty during lectures (though the effect went in the other direction for one-to-one interactions beyond the classroom). Eddy, Brownell, and Wenderoth (2014) found that, even in college classes in which female students outnumbered male students, the female students participated at a lower rate than the male students. We predict, in the present study, that male college students will be more actively engaged in the classroom than female college students.

1.2. Race

As with gender, racial identity may have a complex relationship with engagement. Minority student enrollment in college has increased dramatically since the 1960s (Fischer, 2007), but minority students may still find themselves far outnumbered in many classrooms. In some cases, they are placed in a potentially uncomfortable position of being the spokesperson or representative for an assumed set of experiences (Howard-Hamilton, 2000). Lleras (2008) found that minority students were perceived by their high school teachers to be less engaged than non-Hispanic White students, but the size and trajectory of the gap varied somewhat with the diversity of the student body. In college, the relationship between race and engagement may vary by race and features of the environment (Kirkpatrick-Johnson, Crosnoe, & Elder, 2001) and may interact with other variables like gender and type of institution (Wood, 2014). In a review of the literature, Rovai, Gallien, and Wighting (2005) suggest that minority students may be led to withdraw – at least mentally – from learning environments that are inconsistent with their expectations and needs. In the present study, we predict that majority-race students will report more active engagement in the classroom than will minority-race students.

1.3. Self-Esteem and Attachment

Researchers have observed academic correlates of low self-esteem, finding that individuals with low self-esteem tend to avoid oral participation in the classroom (Stoeckli, 2009). In an early study, Morrison and Thomas (1975) studied 78 college students and found that low self-esteem was associated with lower participation and distant chosen seating. The direction of causality is often assumed to be such that high self-esteem supports participation, but Brennan (1985) also found support for the possibility that participation contributes to the development of self-esteem. Whatever might be the nature of causation, we predict that active classroom engagement will be associated with self-esteem.

Weaver and Qi (2005) noted that active classroom participation "can be seen as signaling a student's attachment to the class and to others within it" (p. 575), and so it seems reasonable to explore the possible contribution of long-term attachment style to academic engagement. Strong attachment to parents seems, for example, to help students cope with some academic challenges (Kenny & Donaldson, 1991). Thus, we predict that secure attachment will be associated more active engagement in the classroom.

1.4. Alexithymia

Alexithymia is a multidimensional construct that includes difficulty identifying feelings, difficulty describing emotions to others, a restricted imagination, and an externally oriented way of thinking (Bagby, Parker, & Taylor, 1994). If emotional awareness and integrative habits of thinking are among the building blocks of academic engagement, then alexithymia might inhibit academic success. Parker, Austin, Hogan, Wood, and Bond (2005) studied 707 students making the transition from high school to college and found that alexithymic students performed more poorly than non-alexithymic students in the first year of college. In a smaller study, Kerr, Johnson, Gans, and Krumrine (2004) found that alexithymia predicted fall-semester academic adjustment among 56 first-year college students. We predict that higher alexithymia will be associated with lower active classroom engagement.

1.5. Executive Functioning and Mindfulness

Executive cognitive functioning and mindfulness are integrally connected to academic performance. Executive functions comprise "cognitive abilities for adaptive functioning, allowing for behavior that is more goal-oriented, flexible, and autonomous" (Spinella, 2005, p. 650). Mindfulness refers to "being attentive to and aware of what is taking place in the present'' (Brown & Ryan, 2003, p. 822). Both constructs have also been correlated with a problematic behavior among college students and others: texting while driving. Hayashi, Foreman, Friedel, and Wirth (2018), for example, found lower levels of self-reported cognitive functioning among those who reported engaging in dangerous driving behaviors, including texting while driving. Those who report texting while driving have lower reported mindfulness than those who do not (Feldman, Greeson, Renna, & Robbins-Monteith, 2011). Texting while driving, furthermore, appears to be a harbinger of other behavioral deficits; Seiler (2015) found that texting while driving predicted inattentive behaviors in meetings and at work. Thus, a simple self-report of texting behavior is predicted to be correlated with academic disengagement in the classroom.

In the present study, data were collected in two waves. Rather than immediately combining the wave data into one set for analyses, we sought to treat the second wave as a replication attempt. The procedure and sampling method were similar, and, therefore, trustworthy results should accrue similarly in the second wave. It was anticipated that active engagement would be more evident in male students, majority race students, students with high self-esteem, students with secure attachment styles, students scoring lower in alexithymia, and students who text less while driving.

2. Method

2.1. Participants

The first-wave sample included 220 college students (136 female, 84 male), with an average age of 19.1 years (SD = 0.81). 84.5% of the first-wave sample identified as non-Hispanic Caucasian. The second-wave sample included 331 college students (180 female, 151 male), with an average age of 19.1 years (SD = 1.02). 85.8% of the second-wave sample identified as non-Hispanic Caucasian. All participants provided informed consent and completed an online protocol delivered through Qualtrics survey software.

2.2. Measures

The protocol included a measure of active engagement, the Toronto Alexithymia Scale (Bagby et al., 1994), a short-form of the Trent Relationship Scales Questionnaire (Scharfe, 2016), the Single-Item Self Esteem measure (Robins, Hendin, & Trzesniewski, 2001), a measure of texting while driving, and single items for measuring self-reported demographic variables.

2.2.1. Engagement Status

Engagement status was measured with a single, self-report item. On a scale from 1 ("Not true of me") to 7 ("True of me"), participants responded to the following statement: "I speak up in my college classes (often asking questions, answering questions, or making comments)." Based on responses, participants were divided into the Passive Group (responses 1 or 2) and Active Group (responses 5, 6, or 7).

2.2.2. Toronto Alexithymia Scale

The Toronto Alexithymia Scale (TAS; Bagby et al., 1994) is self-report scale with twenty items arrayed across three factorially derived subscales: difficulty identifying feelings (DIF), difficulty describing feelings (DDF), and externally oriented thinking (EOT). The TAS has been found to have strong reliability (internal and retest) and to be maintain its psychometric properties when administered online (Bagby, Ayearst, Morariu, Watters,

& Taylor, 2014). The total scale has an internal consistency of .80 when administered online, with the subscale scores having internal consistencies ranging from .55 to .82 (Bagby et al., 2014).

2.2.3 Trent Relationship Scales Questionnaire

The Trent Relationship Scales Questionnaire (T-RSQ; Scharfe, 2016) includes forty items selected to cover four attachment styles: secure, fearful, preoccupied, and dismissing. Scharfe (2016) found support for both the reliability and construct validity of the full T-RSQ. Concerned about the impact of lengthy scales on participant compliance, we shortened the scale to twelve items (three items per attachment style). Thus, the secure attachment variable in this study was calculated by adding the responses from three items, after reverse-scoring the one reverse-coded item. The original ten-item scale has an internal consistency of .77 (Scharfe, 2016), and that figure likely forms an upper estimate for the internal consistency of the shortened scale.

2.2.4 Single-Item Self Esteem

The Single-Item Self Esteem measure (SISE; Robins, Hendin, & Trzesniewski, 2001) measures self-esteem with one item; participants respond to the statement, "I have high self-esteem," on a scale from 1 (not very true of me) to 5 (very true of me). While not necessarily a good choice with young children, the SISE has been found to have construct validity findings that are "nearly identical" to the most commonly administered scale, the Rosenberg Self-Esteem Scale (Rosenberg, 1965). Test-retest reliability for the SISE is .75 (Robins et al., 2001).

2.2.5 Texting while Driving

Texting while driving was measured with a single self-report item. Students were asked to respond on a five-point scale from "never" to "every time I drive" to the question, "How often do you text while driving?"

2.3 Data Analysis

We performed chi-square tests and independent sample t-tests to examine our hypotheses in each wave of data. Consistently significant results across the two waves were considered to be indications of replicable correlates of engagement. To examine the independence of and overall contribution of the identified variables, we conducted a binary logistic regression with engagement level as the dichotomous dependent variable and stepwise introduction of the identified variables. All statistical analyses were conducted with IBM's SPSS (version 24).

3. Results

Results from the initial sets of analyses of each data wave are shown in Tables 1 and 2. Table 1 presents the crosstabulations and chi-square statistics for engagement status in terms of gender and race. Table 2 presents the descriptive statistics and t-test results for the alexithymia factors, secure attachment, self-esteem, and texting behavior broken down by engagement status.

In the first wave, the passive group included 101 students and the active group included 40 students. Engagement level was not significantly related to gender ($\chi2(1) = 2.47$, $p = .084$) or race ($\chi2(1) = .00$, $p = .584$). Active students, however, differed significantly from passive students by indicating higher self-esteem (t (139) = 3.22, $p = .001$), more secure attachment (t (139) = 2.77, $p = .003$), less inclination to text while driving (t (139) = 2.87, $p = .003$), and lower levels of two factors in alexithymia – externally-oriented thinking (t (139) = 2.56, $p = .006$) and difficulty describing feelings (t (139) = 2.46, $p = .008$). The third alexithymia factor, difficulty identifying feelings, did not differ significantly between the groups (t (139) = 0.71, $p = .240$).

In the second wave, the passive group included 143 students and the active group included 66 students. As in the first wave, engagement level was not significantly related to race ($\chi2(1) = .863$, $p = .241$), but the active group was more likely to be male ($\chi2(1) = 3.53$, $p = .042$). Active students differed significantly from passive students by indicating higher self-esteem (t (207) = 3.13, $p = .001$), less inclination to text while driving (t (207) = 2.85, $p = .003$), and lower levels of externally-oriented thinking (t (207) = 1.70, $p = .045$). However, difficulty identifying feelings (t (207) = .34, $p = .368$), difficulty describing feelings (t (207) = .23, $p = .411$), and secure attachment (t (207) = .42, $p = .337$) did not distinguish the two groups in the second wave.

Table 1. Crosstabulations of Gender and Race by Engagement with Chi-Square Results in Each Wave

		Passive	Active	χ2	*p* value[a]
Wave 1					
Gender				2.47	.084
	Female	65	20		
	Male	36	20		
Race					
	Majority	86	34	0.00	.584
	Minority	15	6		
Wave 2					
Gender				3.53	.042
	Female	87	31		
	Male	56	35		
Race					
	Majority	121	59	0.86	.241
	Minority	22	7		

[a] Fisher's Exact One-Sided Significance

Table 2. Independent Sample t-tests in Each Wave

	Passive		Active			
	Mean	SD	Mean	SD	*t* value	*p* value
Wave 1						
Alexithymia – DDF	2.95	0.93	2.53	0.94	2.46	.008
Alexithymia – DIF	2.33	0.87	2.21	0.89	0.71	.240
Alexithymia – EOT	2.48	0.54	2.21	0.62	2.56	.006
Secure Attachment	1.44	0.84	1.87	0.80	2.77	.003
Self-Esteem	4.16	1.33	4.98	1.42	3.22	.001
Texting Behavior	3.49	1.40	2.73	1.47	2.87	.003
Wave 2						
Alexithymia – DDF	2.84	0.89	2.81	0.91	0.23	.411
Alexithymia – DIF	2.29	0.81	2.25	0.87	0.34	.368
Alexithymia – EOT	2.52	0.47	2.39	0.54	1.70	.045
Secure Attachment	1.58	0.76	1.63	0.81	0.42	.337
Self-Esteem	3.89	1.58	4.64	1.68	3.13	.001
Texting Behavior	3.41	1.50	2.77	1.47	2.85	.003

Thus, three variables were consistently found across two waves to be significantly related to engagement level. To examine the independence of and overall contribution of these variables, we conducted a binary logistic regression with engagement level as the dependent variable and stepwise introduction of self-esteem, texting while driving, and externally oriented thinking. In binary logistic regression, the dependent variable is binary rather than continuous (as in simple or multiple linear regression) and the predictor variables can be either continuous or categorical. Results are shown in Table 3. All three variables made significant contributions to the prediction of engagement; the resulting model was statistically significant (χ^2 (3) = 43.11, p < .001) and explained a little over 16% of the variance in engagement (Nagelkerke R^2 = .164). The overall classification success of the model was 73.4% (almost a four-point rise over chance-level prediction at 69.7%). Higher levels of self-esteem, lower levels of externally oriented thinking, and less texting while driving predicted a higher likelihood of active engagement. Estimate plots of each predictor with the dependent variable are consistent with a linear relationship, and intercorrelations among the predictors are low (r < .20).

Table 3. Binary Logistic Regression Analysis Predicting Active Versus Passive Engagement with Stepwise Introduction of Three Variables

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Self-Esteem	.365	.085	13.308	1	<.001	1.441
Texting While Driving	-.333	.086	14.868	1	<.001	.717
Externally Oriented Thinking	-.628	.242	6.725	1	.010	.534
Model	χ^2 (3) = 43.11, p < .001		Nagelkerke R^2 = .164			

Since the statistical tests for gender approached significance in each wave, a second binary logistic regression was run with gender as a fourth variable (a dichotomous factor: male or female). All four variables made significant contributions to the prediction of engagement level and entered the prediction equation per the forward stepwise procedure; the resulting model was statistically significant (χ^2 (4) = 53.21, p < .001) and explained 20% of the variance in engagement (Nagelkerke R^2 = .200). The overall classification success of the model was 74.6% (almost a five-point rise over chance-level prediction at 69.7%, and a little over one-point rise occurs with the addition of gender). Higher levels of self-esteem, lower levels of externally oriented thinking, less texting while driving, and male gender predicted a higher likelihood of active engagement.

Table 4. Binary Logistic Regression Analysis Predicting Active Versus Passive Engagement with Stepwise Introduction of Four Variables

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Self-Esteem	.346	.087	15.984	1	<.001	1.414
Texting While Driving	-.368	.089	17.233	1	<.001	.692
Externally Oriented Thinking	-.779	.254	9.386	1	.002	.459
Gender (dichotomous factor)	.828	.264	9.858	1	.002	2.289
Model	χ^2 (3) = 43.11, p < .001		Nagelkerke R^2 = .164			

4. Discussion

Across two waves of data collection, three variables were consistently related to active academic engagement. Higher self-esteem, lower externally oriented thinking, and less texting while driving predicted engagement (self-report of speaking up often in class – asking questions, answering questions, and making comments). Together, the three variables accounted for sixteen percent of the variance in engagement. Adding a fourth variable, gender, led to twenty percent of the variance in engagement being explained.

Given that engagement in the classroom is related to a number of positive academic and personal outcomes (Braxton et al., 2008; Handelsman et al., 2005; Kim & Lundberg, 2015; Wilcox et al., 2016; Zumbrunn et al., 2014), identifying variables that are consistently connected to engagement might be an important step toward facilitating targeted interventions by instructors. Already, a number of researchers are exploring engagement-eliciting pedagogy (e.g., Downs & Wilson, 2015), but those efforts may be enhanced by greater understanding of learner characteristics (Rocca, 2010). The scholarship of teaching and learning is catalyzed when our starting points are not only theoretically logical but also predictably impactful. Concerns about the replicability of research findings could be a barrier to establishing engagement-eliciting pedagogy. The present study detects relatively trustworthy relationships by treating data waves as an internal replication. Though not perfect, this approach seems more reasonable than potentially highlighting chance relationships magnified by the power of large samples and null hypothesis testing.

Classroom disengagement appears to be common, both in secondary school (National Research Council, 2004) and college (Fritschner, 2000). In the present study, the passive group of students was more than twice the size of the active group of students. Based on the present findings, we would argue for renewed attention to developing gender-sensitive classroom strategies that strengthen self-esteem, encourage mindful self-regulation, and promote deep learning.

Significant methodological limitations, however, mark the present study, and next steps include replication under different conditions. Though the samples were large, all participants were drawn from one university in one section of one country, and so it is not clear that these results will necessarily generalize to other settings. As noted by Heoa, Leppisaarib, and Lee (2018), the learning culture may have distinct features from one country to another. Even within a country, students coming from different national and cultural backgrounds may have different expectations and inclinations (Hsu & Huang, 2017). Furthermore, this study's reliance on self-report for all variables leaves open the possibility that shared method variance may have inflated or distorted relationships. Relationships, on the other hand, might have been obscured by the use of a single self-reported item for measuring active engagement (see Schwarz, 1999) and by the use of an abbreviated version of the T-RSQ.

The present study explained a maximum of twenty percent of the variance in active engagement. In addition to other person variables to be identified in future research, predictors of engagement are also likely to come from the environment (the classroom, peers, instructor, pedagogical structures, etc.). Future research should examine diverse students in multiple national and cultural contexts, using varied measurement techniques. The present study examined monotonic relationships, but future research may need to consider curvilinear possibilities like the findings of Hu and Kuh (2002), whose results suggested that male gender might be associated with the extremes of engagement (extremely low or extremely high). Sure-footed and culturally specific efforts to identify reliable correlates of active engagement might hasten the development of pedagogies that promote student learning and development.

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The Influence of Counsellor Trainee Support on Public Speaking and Foreign Language Speaking Anxiety in the Class Setting

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ABSTRACT

This mixed methods study examined the influence of cognitive behavioral approach based counsellor trainee support on prospective English teachers' public speaking anxiety and foreign language speaking anxiety in the class setting. The participants of the study included sixteen third-year prospective English teachers. Both quantitative and qualitative data analysis revealed that the participants benefited from the counselling procedure. The study aims to trigger more interest on different forms of anxiety experienced by prospective teachers and motivate researchers to design interventions that will psychologically assist prospective teachers in their transition to the teaching profession.

Keywords:
Peer counselling, public speaking anxiety, classroom anxiety, language anxiety, cognitive behavioral approach

1. Introduction

Emotions may have a central role in a teacher's professional life. Teaching is described as an emotional activity (Hargreaves, 1998; 2001) and teachers' emotions are considered relevant not only for their own well-being but also for an operative classroom environment (Glaser-Zikuda, Stuchlíková, & Janík, 2013; Sutton & Wheatley, 2003; van den Berg, 2002). Learners are usually skilful in identifying teachers' emotions as emotions are accompanied by physiological changes and behavioural manifestations (Keltner & Ekman, 2000). Negative emotions displayed by a teacher create problems if and when they negatively influence learners' performance (Klusmann, Richter, & Lüdtke, 2016; Makhwathana, Mudzielwana, Mulovhedzi, & Mudau, 2017) and the nature of teacher-student interactions (Stuhlman & Pianta, 2002). While negative deactivating emotions on the part of the teacher create an undesirable classroom atmosphere, positive activating emotions render an encouraging influence on student learning (Pekrun, Goetz, Titz, & Perry, 2002).

Several studies have reported that teachers' negative emotions not only influence learners but also have a profound impact on themselves. Lower competency views, professional dissatisfaction, emotional exhaustion, and continued anxiety have been frequently stressed by teachers who display negative emotions in relation to their teaching experiences (Chang, 2009; Keller Frenzel, Goetz, Pekrun, & Hensley, 2014; Kyriacou, 2001; Spilt, Koomen, & Thijs, 2011). For instance; a report released by the Organization for Economic Cooperation and Development (OECD, 2005) has revealed that negative emotions and high levels of stress and anxiety resulted in higher retirement rates for teachers. The findings of these studies show that it is important for teachers to have the ability to regulate their emotions in anxiety and stress triggering situations in order to have fruitful

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teaching careers. Therefore, it is vital to equip teachers with the skills to self-identify and manage their negative emotions both before and during their professional careers.

The capacity to regulate emotions is important for teachers, however, not all people have the skill to do it successfully (Makhwathana et al., 2017). Hence, one of the goals of teacher training programs at universities should be identifying the factors that produce negative emotions for prospective teachers and find remedies before they step into their professional life. However, a review of the literature shows that most studies of teacher and prospective teacher characteristics and student achievement have focused on indicators of professional knowledge (Hill, Rowan, & Ball, 2005) while paying little attention to teachers' and prospective teachers' emotions. Especially, one factor that has not been adequately addressed in relation to teacher training is *anxiety* experienced by prospective teachers which result in negative emotions about the teaching profession and create negative personal and occupational consequences. Research has shown that teachers' anxiety influences student achievement (Beilock, Gunderson, Ramirez, & Levine, 2010), self-regulation, and goal orientation in teaching and learning (Malpass, O'Neil, Harold, & Hocevar, 1999).

There are different types of anxiety, but this study focused on "public speaking anxiety" and "foreign language speaking anxiety in the class setting" experienced by prospective English teachers considering the fact that oral presentations are an essential part of both college and work responsibilities, and public-speaking competence is one of the elements of professional success, a strategic skill to gain a competitive edge, credibility, and a positive status (Marinho, de Medeiros, Gama, & Teixeira, 2016). Furthermore, prospective foreign language teachers who experience foreign language speaking anxiety in the class setting in addition to public speaking anxiety could be in a more critical condition as they have to manage additional negative emotions in terms of giving public presentations in a foreign language.

Public speaking anxiety is a cluster of evaluative feelings about speechmaking (Daly, Vangelisti, Neel, & Cavanaugh, 1989) that is experienced by the majority of the general population (Burnley, Cross, & Spanos, 1992; Witt, 2006). Bodie (2010) classifies public speaking anxiety as a specific subtype of communication-based anxiety. Individuals who are influenced by public speaking anxiety experience a variety of physiological symptoms in reaction to an upcoming or actual public presentation, including palpitations, sweating, gastrointestinal discomfort, diarrhoea, muscle tension, and confusion (Daly, McCroskey, Ayers, & Hopf, 1997). Other negative consequences of public speaking anxiety are poor speech preparation (Daly, Vangelisti, & Weber, 1995), inadequate decision-making (Beatty & Clair, 1990) and ineffective speech performance (Beatty & Behnke, 1991; Menzel & Carrell, 1994) and public speech avoidance (Beatty & Behnke, 1980; McCroskey & Beatty, 1984). Research has shown that public speaking anxiety is often cited as a primary reason why someone is unable to progress in his or her career (Cunningham, Lefkoe, & Sechrest, 2006). Although research on public speaking anxiety experienced by university students abound (e.g. Mörtberg, Jansson-Fröjmark, Pettersson, & Hennlid-Oredsson, 2018; Nash, Crimmins, & Oprescu, 2015; Tillfors & Furmark, 2007), public speaking anxiety experienced by prospective teachers is a topic that has not withdrawn enough attention in educational research. This constitutes a problem as a high number of prospective teachers graduate without receiving psychological support which may create long term career difficulties for them.

Another topic that has not been sufficiently addressed is the foreign language speaking anxiety in the public speaking class setting experienced by student teachers of English. Classes today demand students to be more active by demonstrating oral performance in front of the class, presenting different topics and also participating in classroom discussions, which may create or increase anxiety (Öztürk & Gürbüz, 2014). Prospective foreign language teachers are also responsible for displaying their teaching skills in front of their class in a foreign language. However, as Tüm and Kunt (2013) stated although research interest in foreign language anxiety among language learners has been extensive, only a small body of research has addressed anxiety among student teachers who are non-native speakers of the target language. Yet, there are strong reasons to believe that anxiety as an affective state are prevalent among those student teachers, especially as they approach the start of their teaching careers. On the other hand, studies that focused on foreign language anxiety among student teachers and foreign language teachers (see Gürsoy & Korkmaz, 2018; Horwitz, 1996; Ipek, 2007; Tüm & Kunt, 2013) were descriptive and did not aim to create interventions to decrease or eliminate anxiety. Hence, it is important to design intervention studies that support student teachers in coping with anxiety before they start their professional teaching career.

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Ipek, 2007; Tüm & Kunt, 2013) were descriptive and did not aim to create interventions to decrease or eliminate anxiety. Hence, it is important to design intervention studies that support student teachers in coping with anxiety before they start their professional teaching career.

1.1. Context and Research Focus

Teacher training activities in Turkey are conducted by faculties of education. In order to be a student of an English language teaching teacher training program, students have to get a sufficient score from the university entrance exam that directs them multiple choice questions. The English section of the university entrance exam focuses on structure, reading comprehension, translation, and vocabulary knowledge. Prospective English teachers' communicative skills are not tested before they enter a Turkish university. Additionally, several studies have shown that the majority of these students are exposed to grammar-oriented English education before they enter university and their language education does not include communicative activities and introduction of authentic materials that could prepare them to interact using the target language (Bal, 2006; Güvendir, 2017; Ozsevik, 2010). During the teacher training program, prospective English teachers are expected to use the target language in communicative activities and give oral classroom presentations which may be quite challenging and anxiety provoking for them as their formal training provides limited opportunities to use the target language communicatively.

There is no nationwide application in Turkey that aims to measure prospective teachers' anxiety levels and provide remedies for them. Universities in Turkey employ psychologists or counsellors with the aim of providing psychological support to students. However, research has shown that although the number of students who need psychological counselling is high, the rate of applying for psychological help among university students in Turkey is low (Kacur & Atak, 2011). Psychological support is not at the desired level due to the lack of sufficient staff to provide psychological counselling services (Kızıldağ, Demirtaş Zorbaz, Gençtanırım, & Arıcı, 2012). For instance, during the 2018-2019 academic year, there was only one professional psychologist in the psychological counselling centre of the university where the research was conducted while the number of university students was 48.542. Consequently, a considerable number of students in Turkey step into the teaching profession without benefiting from the counselling services provided by their universities.

In this study, the researchers constructed an intervention procedure that aimed to support prospective English teachers in coping with public speaking and foreign language speaking anxiety in the classroom setting. Considering that there was only one psychologist at the university where the research was carried out, the researchers decided to get assistance from the fourth year students studying at the Guidance and Psychological Counselling Program of the same university. In particular, the study examined the influence of cognitive behavioural approach based counsellor trainee support on prospective English teachers' *public speaking anxiety* and *foreign language speaking anxiety in the class setting*.

Several reasons motivated the researchers to use the cognitive behavioural approach as a basis for the counselling procedure. Research has shown that negative emotions have cognitive roots as individuals first develop cognitive elements, and then react emotionally in any situation they encounter (Lazarus, 1999). Studies on the concept of cognitive emotion regulation, which is used as a synonym for cognitive coping, reveal that both coherent and incoherent coping strategies are involved in cognitive emotion regulation (Garnefski & Kraaij, 2018; Kocabıyık, Çelik, & Dündar, 2017; Kraaij, Garnefski, & Vlietstra, 2008; Onat & Otrar, 2010). As these emotion regulation strategies lead to different results in diverse situations, it is significant for individuals to choose these strategies flexibly and accurately (Sakakibara & Endo, 2016). Students have beliefs about learning that affect their learning process and emotional states. Some students feel confident in their learning environment, while others feel uneasy and anxious (Ellis, 1994). According to the cognitive behavioural approach, negative feelings may stem from misleading thoughts that individuals develop about different situations. Although negative life experiences can lead to the growth of disturbances in individuals, individuals sometimes have misconceptions about unexperienced but projected situations (Dattilio, 2010).

Proponents of the cognitive behavioural approach argue that misleading and dysfunctional thoughts that affect an individual's mental state and behaviour are the common mechanisms underlying all psychological disorders (Beck, 2011). Hence, in order for the individual to have healthy thoughts again, s/he must regulate them (Beck, 2005).

Cognitive structures or schemas sometimes contain dysfunctional, irrational, automatic judgments and beliefs that reduce awareness in individuals (Beck, 2011). The examination of the dysfunctional thoughts developed in relation to foreign language and public speaking anxiety reveals that these thoughts are very diverse. For example; negative assumptions about the four language skills of students, negative L2 self-efficacy beliefs, considerations such as the idea of being evaluated negatively by others, may lead to anxiety. This adversely affects the learning process of the students (Cheng Horwitz, & Schallert, 1999). Changing negative and unrealistic thoughts with alternative and healthy ones becomes important in terms of solving anxiety-oriented problems and creating self-awareness (Köroğlu, 2013). Studies have shown that interventions based on cognitive behavioural approaches are highly effective in solving anxiety-related disorders (Aydın, Tekinsav-Sütcü, & Sorias, 2010; Otte, 2011; Otto, Smits, & Reese, 2004; Wood, Drahota, Sze, Har, Chiu, & Langer, 2009). For this reason, this study used cognitive behavioural approach to counsel prospective English teachers who displayed high levels of public speaking anxiety and foreign language classroom anxiety. The study aimed to enable the participants to identify the relationship between emotion, thought and behaviour, to realize automatic and unrealistic thoughts and to change them with healthy ones. In particular, the study addressed the following research questions:

1. What is the effect of cognitive behavioural approach based counsellor trainee support on the participants' "public speaking anxiety" and "foreign language speaking anxiety in the class setting"?
2. What are the participants' reflections on the counselling experience and how can their reflections be used for improving the effects of further interventions positively?

Additionally, the study aimed to trigger more interest on different forms of anxiety experienced by prospective teachers and motivate researchers to design consecutive interventions that will psychologically assist prospective teachers.

2. Method

2.1. Research Design

This study utilized a *mixed methods study design* which included the use of both quantitative and qualitative methods in a single study (Fraenkel & Wallen, 2009). For the quantitative part, the study used *one-group pretest-posttest design* which included the measurement of a single group not only after being exposed to an intervention, but also before (Fraenkel & Wallen, 2009). The study used *thematic analysis* to examine the written reflections of the participants qualitatively (Maguire & Delahun, 2017). The researchers collected and analysed data on public speaking and foreign language speaking anxiety in the class setting. Data were collected concomitantly and analysis procedures sought to answer similar research questions. After the separate qualitative and quantitative data analysis, the findings were brought together to address the mixed methods inquiry (Onwuegbuzie & Johnson, 2006).

2.2. Participants and Counselling Procedure

Participants of the study included sixteen third year prospective English teachers (12 females and 4 males) studying English Language Teaching at Trakya University/Faculty of Education, during the 2018-2019 academic year. The average age of the participants was 21. Learners volunteered to participate in the current research. Although these participants had high levels of public speaking and foreign language speaking anxiety within the classroom context, they had never received any form of psychological support by the time the study was conducted. On the other hand, third year of the English Language Teaching program at Trakya

University included courses such as ‘teaching language skills’, ‘English language teaching methodology’, ‘teaching English to young learners’, and ‘literature and language teaching’ that required the participants to give oral classroom presentations in English.

As a part of the counselling procedure, sixteen psychological counsellor candidates studying in the Department of Guidance and Psychological Counselling at Trakya University during the 2018-2019 academic year were randomly assigned to the experimental group. These candidates voluntarily contributed to the study and provided counselling within the context of the ‘individual psychological counselling practice’ course. Each psychological counsellor candidate conducted eight counselling sessions with the same counselee and an additional interview session.

Psychological counsellor candidates conducted a counselling session with only one counselee at a time and received supervision from their course coordinator for each session. The course coordinator met with the candidates each week and supervised them for each session. Counsellor candidates took the audio and video records of all the counselling sessions with the permission of their counselees, wrote the session summaries, and transcribed four sessions determined by their supervisor. Prior to the supervision, the supervisor examined the session summaries and the transcriptions. During the supervision, the counsellor candidate summarized what s/he focused on during the sessions with the counselee, and the supervisor provided feedback on the points s/he considered significant and relevant. In addition, the supervisor aimed to increase the efficiency of the counselling process by referring to several techniques such as peer-feedback and question and answer.

Psychological counselling sessions were based on cognitive behavioural approach. Before starting the counselling sessions, the supervisor and the counsellor candidates reviewed the basic philosophy of the cognitive behavioural approach with a focus on its view of the human nature, theoretical structure, therapy process, and the common methods and techniques employed in its practice. Subsequently, the supervisor and the counsellor candidates planned the subjects, methods, and activities for the upcoming counselling sessions. The planning of the consultation sessions was done by taking the relevant literature into consideration (e.g. Beck, 2005, 2011; Corey, 2005; Meydan, 2015). In line with this plan, as shown in Table 1, the candidates conducted approximately 45-50 minutes of counselling sessions for eight weeks. Table 1 also demonstrates the activities that took place in the individual counselling sessions.

Table 1. Psychological counselling session activities.

• Session	• Activities
I.	• Giving information about the psychological counselling process, its characteristics, general objectives, and the rules of the process, • Focusing on the symptoms of public speaking and foreign language anxiety to determine the problem of the counselee, • determining the objectives related to the problem.
II.	• Giving information about the basic features of cognitive behavioural approach, • showing the relationship between emotion, thought, and behaviour according to A-B-C model, • recording the experiences of public speaking and foreign language speaking anxiety in accordance with A-B-C model, • homework assignments.
III.	• Giving information about basic beliefs-intermediate beliefs- automatic beliefs, • expressing automatic beliefs, intermediate beliefs, and basic beliefs about public speaking and foreign language anxiety, • homework assignments.
IV.	• Analysis of automatic thoughts, • learning how to detect negative automatic thoughts, • developing alternative ideas for negative automatic thinking,

	• homework assignments.
V.	• Giving information about cognitive distortions, • determining the cognitive distortions the counselee has got, • examining the relationship between these cognitive distortions and anxiety, • homework assignments.
VI.	• Developing functional alternative thoughts instead of negative automatic thoughts and cognitive distortions, • developing alternative thoughts with the help of questions, • homework assignments.
VII.	• Giving information about the ways to cope with anxiety, • practicing the relaxation activity, • sharing the likely situations that cause anxiety before and during presentations, • preparing counselees for these situations, • homework assignments.
VIII.	• The overall evaluation of the sessions, • counselees' self-evaluation

2.3. Instruments

This research used two different scales to measure any change in the participants' level of public speaking anxiety and foreign language speaking anxiety in the class setting. The instruments were administered at the beginning and at the end of the counselling sessions.

The study used written reflections in order to identify the participants' opinions about the counselling process and to form suggestions for improving the effects of further interventions that have similar purposes. Thus, the participants submitted written reports that provided a critical overview of the interventions at the end of the counselling process.

2.3.1. Personal Report of Public Speaking Anxiety

In order to measure the participants' public speaking anxiety, the study used Personal Report of Public Speaking Anxiety (PRPSA) scale developed by McCroskey's (1970). This instrument measures the level of public speaking anxiety experienced by participants. It is widely respected and regularly used by instructors and researchers of communication, serving as universal standard in the field. The PRPSA is considered a reliable instrument with alpha estimates >.90.

2.3.2. Public Speaking Class Anxiety Scale

The study used Public Speaking Class Anxiety Scale (PSCAS) by Yaikhong and Usaha (2012) to measure English language speaking anxiety in the class setting. The items on this scale were adopted from widely used anxiety scales: Foreign Language Classroom Anxiety Scale (FLCAS) by Horwitz, Horwitz, and Cope (1986); Personal Report of Communication Apprehension (PRCA-24) and Personal Report of Public Speaking Anxiety (PRPSA-34) by McCroskey (1970); and Speaker Anxiety Scale (SA) by Clevenger and Halvorson (1992). The scale had an internal consistency of .84 which makes it potentially useful to measure English language speaking anxiety levels within the classroom context.

2.4. Data Analysis

As the first step of the data analysis, the study tested the significance of the difference between the pre-test and the post-test PSCAS scores. In order to determine whether there were any extreme values in the pre-test and post-test scores, the researchers converted all scores to z scores and scaled the Z score between +3 and -3 with an average of 0. Values other than these values are defined as multivariable end values and removing these values from the data set is recommended. (Walsh & Betz, 1990). Since all values in the current data set were between -3 and +3, there was no end value in the data. Subsequently, the researchers examined the skewness and kurtosis values of the scores in order to test whether the pre-test and post-test scores were normally distributed. The results of the pre-test and post-test scores were found to be normal (Kline, 2011; Muthén & Kaplan, 1985) since the skewness (.008- .924) and kurtosis (-.478-.297) values were between -1 and +1. Consequently, the researchers used Paired samples t-test to examine the significance of the difference between the pre-test and the post-test PSCAS scores.

As the second step of the data analysis, the study tested the significance of the difference between the pre-test and the post-test PRPSA scores. The researchers converted all scores to z scores to identify the extreme values in the data. As all values in the current data set were are between -3 and +3, there was no end value in the data. Following this procedure, the researchers looked at the skewness and kurtosis values of the scores in order to test whether the pre-test and post-test scores were normally distributed. The values of skewness (.205- .595) of the pre-test and post-test scores were between -1 and +1, while the values for kurtosis (-1.275-.055) were not between -1 and +1. Considering these values, the researchers concluded that the data were not distributed normally. Accordingly, the study used the Wilcoxon signed rank test which is one of the nonparametric methods to test the significance of the difference between pre-test and post-test PRPSA scores. The study took. 05 significance level as the basis for determining the significance of the difference for both analyses.

The researchers calculated the Cronbach Alpha coefficient to determine the reliability of the data obtained. While the reliability of the data obtained as pre-test scores from the PSCAS was .833, the reliability of the data obtained for the post-test scores was .751. For the PRPSA scale, the pre-test scores had a reliability of .833, and the post-test scores had a reliability of .756. Accordingly, the reliability of the pre-test and post-test data obtained from both scales was high (> .70).

As the third step of data analyses, the study used *thematic analysis* to examine the written reflections of the participants qualitatively. “The goal of a thematic analysis is to identify themes, i.e. patterns in the data that are important or interesting, and use these themes to address the research” (Maguire & Delahun, 2017, p. 3353). According to Bardin (as cited in Oliveira, Bitencour, dos Santos, & Teixeira, 2016, p. 74) thematic content analysis consists of three stages: 1. Pre-analysis, 2. exploration, and 3. treatment and interpretation. In accordance with these stages, firstly, the counselee reflection reports were transferred to the computer and the researchers repetitively read the reflections at different times and highlighted the important points of the texts by considering the research questions of the study. Subsequently, the researchers compared the similarities and differences of the highlighted points and transformed the similarities into themes. Associated themes were grouped together and reviewed to examine whether they represented the participants’ reflections. Finally, the final themes and sub-themes were formed. Following the coding process, intercoder reliability was calculated. Intercoder reliability is “the extent to which independent coders evaluate a characteristic of a message or artifact and reach the same conclusion” (Lombard, Snyder-Duch, & Bracken, 2010, p. 2). Intercoder reliability was measured by calculating Cohen’s Kappa value. Cohen’s Kappa is a measure of reliability that corrects for chance agreement (Cohen, 1960). It accounts for the fact that raters are expected to agree with each other a certain percentage of the time simply based on chance. The Cohen’s Kappa value for the current study was .91 which indicates a highly acceptable reliability value. Lombard et al. (2010) state that coefficients of .90 or greater are approximately always adequate for the index or indices to be used. The study benefited from expert views to ensure validity. Hence, three experts examined the analysis of the data and the consistency of the themes (Baker, Wuest, & Stern, 1992). The themes and sub-themes formed as a result of expert approval are presented in Table 4. The study used direct quotations to ensure the transferability of the reflections related to themes.

In the exploration stage of the thematic analysis, the researchers placed the themes in Maxqda 12 software. This software is a package for analysing qualitative data that can be used for content analysis. The creation of codes and themes in the software is controlled by the user who can create codes before, during or after the material is analysed. Maxqda 12 associates codes with the selected data in several ways; some part of the text is indexed to an existing code; a new code is created and associated with a part of the text, a theme is sought in a text and the parts pertaining to that theme are automatically coded (Oliveira, Bitencourt, Teixeira, & Santos, 2013).

3. Findings

Table 2 shows the results of the *t-test* for the significance of the difference between the pre-test and the post-test of PSCAS scores.

Table 2. *t-test* results for the pre-test and post-test scores of PSCAS scale.

	N	Mean	S	sd	t	p	Effect Size
Pre-test	16	54.688	9.257	15	4.015	0.001	1.003
Posttest	16	43.375	7.864				

The results on Table 2 show that the difference between the pre-test and the post-test scores is statistically significant (t_{15}=4.015; p<.05). The comparison of the mean of the pre-test and the post-test scores display that the post-test score mean ($\bar{X}$=43.375) is lower than the pre-test score mean ($\bar{X}$=54.688). In addition, the magnitude of the significant difference between the two means was calculated by the effect size. Accordingly, the obtained value was found as 1.003. If the effect size is 0, it means that the mean is equal to the fixed value to which it is compared. Effect size greater than 1 is considered too large, 0.8 large, 0.5 medium, and 0.2 small (Green & Salkind, 2005). According to the effect size obtained here, the difference between the pre-test and the post-test mean scores is very large.

Table 3 presents the results of the *Wilcoxon signed rank test* for the significance of the difference between the pre-test and the post-test of PRPSA scores.

Table 3. Wilcoxon signed rank test results for the pre-test and post-test scores of PRPSA scale.

Post-test-Pre-test	n	Mean Rank	Sum	z	p	Effect Size
Negative Rank	16	8.500	136.000	3.517	.000	.879
Positive Rank	0	.000	.000			
Equal	0					
Total	16					

The results on Table 3 show that there is a significant difference between the mean of pre-test and post-test scores (z=3.517; p<.05). Considering the mean and total of the difference points, one can conclude that this difference is in favour of the pre-test score. According to these results, the mean of the post-test scores is lower than the pre-test scores. The obtained effect size shows that the difference between the mean rank of pre-test and post-test scores is very large.

The qualitative data analysis of the written reports generated four main themes and eleven sub-themes (see Table 04). The main themes are 'counselling skills', 'counselling techniques', 'the benefits of the counselling procedure', and 'suggestions'. The sub-themes are 'trust', 'effective listening', 'respect and acceptance', 'self-confidence', 'problem solving', 'empathy', 'questioning automatic thoughts', 'cognitive restructuring', 'homework assignments', 'number of sessions', and 'early counselling exposure'.

Table 4. Main themes and sub-themes.

Main Themes	Sub-themes
1. Counselling Skills	*- Respect and acceptance* *- Effective listening* *- Trust*
2. Counselling Techniques	*- Questioning automatic thoughts* *- Cognitive restructuring* *- homework assignments*

3. The benefits of the counselling procedure	*- Problem solving* *- Self-confidence* *- Empathy*
4. Suggestions	*- Number of sessions* *- Early counselling exposure*

Each of the themes shown on Table 4 above will be explained with direct quotations.

3.1. Main theme: Counselling skills

One of the points that the participants considered remarkable was the counsellors' counselling skills and their approach to the participants. Their reports show that mutual understanding and a sense of trust left a positive mark on the participants. Effective counselling skills influenced the counselees positively and contributed to the construction of a relaxed atmosphere where they expressed their problems openly and trusted their counsellor for remedial actions.

Sub-theme: Respect and acceptance

"I felt very good to have someone who just listened to me without judging. " (Position: 1-1; 28.01.2019 21:21)

Sub-theme: Effective listening

"Since the very beginning, I had a beautiful energy with my counsellor and I was able to express myself in a very comfortable way during the interview because I felt that I was being understood by the person listening to me." (Position: 1-1; 28.01.2019 21:20)

Sub-theme: Trust

"Actually, I was apprehensive before the first interview. I always experienced this feeling with people I had first met. But with the sincerity and warmth of my counsellor in the first session, my apprehension vanished. " (Position: 2-2; 27.01.2019 17:49)

3.2. Main theme: Counselling techniques

Participants reported that counselling techniques such as 'questioning automatic thoughts', 'cognitive restructuring', and 'homework assignments' helped them recognize the negative beliefs that resulted in anxiety and gave them an opportunity to restructure their thoughts. As a result, the participants started to see being criticized after the presentations as a valuable process that assisted them in constructing better presentations.

Sub-theme: Questioning automatic thoughts

"I think the counselling sessions had a positive effect on my anxiety. Owing to these sessions, my thoughts such as -Will my voice shake when I speak English during the presentation?-, -Will I forget what to say- disappeared. I realized the automatic thoughts that led to these concerns." (Position: 1-1; 27.01.2019 17:04)

Sub-theme: Cognitive restructuring

"I'm no longer worried about making mistakes during my presentations, because we are humans and we learn from our mistakes. After the counselling sessions, I started to value the constructive criticisms that others make and try to provide a better performance based on these criticisms." (Position: 1-1; 27.01.2019 17:13)

Sub-theme: Homework assignments

"I think the homework assignments that my counsellor gave me on the things I should do before the presentations, during the presentations and what I should think etc. have worked for me. " (Position: 1-1; 27.01.2019 17:33)

3.3. Main theme: The benefits of the counselling procedure

The examination of the written reports shows that the participants benefited from the counselling sessions. As an outcome of those sessions, the participants felt more confident; constructed better problem solving skills; and started to quit self-centred thoughts, and aimed to create better presentations that targeted the satisfaction of the audience.

Sub-theme: Problem solving

"The counselling process resulted in good outcomes in terms of solving my anxiety problems. Counselling sessions gave me the opportunity to create self-awareness and help myself. I have found solutions to my anxiety problems. " (*Position: 2-2; 27.01.2019 17:25)*

Sub-theme: Self-confidence

"In our interviews, we compared the presentation that I made in English and Turkish and we found that I wasn't really that bad at the presentations in English. This made me feel more confident. " (Position: 1-1; 27.01.2019 17:15)

Sub-theme: Empathy

"Before the sessions, as a prospective teacher, I had self-centred thinking such as "how will I teach this topic in the classroom?". However, after the sessions, I started to think of the best ways to make my future students learn and enjoy my lessons. " (Position: 1-1; 27.01.2019 17:03)

3.4. Main theme: Suggestions

Although the overall reflections of the participants displayed positive reactions to the counselling process, they also included recommendations for further applications. One of these recommendations was about the number of sessions and stressed reducing the number of sessions. The other recommendation was about the timing of the sessions and it reported a preference for starting these counselling sessions at the beginning of the university education and longitudinally monitoring the participants' anxiety levels.

Sub-theme: Number of sessions

"The counselling program was very beneficial and helpful for me. But I think it might be better to reduce the number of sessions in the following applications. " (Position: 4-4; 27.01.2019 17:56)

Sub-theme: Early counselling exposure

"Identifying anxious students exposing them to counselling sessions *much earlier, namely as from the 1st grade and re-doing them if these problems re-emerge will provide great benefit for the students." (Position: 3-3; 27.01.2019 17:29)*

4. Discussion

The study examined how counsellor trainee support that adopted cognitive behavioural approach as its medium of counselling influenced prospective English teachers' public speaking anxiety and foreign language speaking anxiety in the class setting. Both quantitative and qualitative data analysis revealed that the participants benefited from the counselling procedure.

Counselling skills of the counsellors were stressed by the participants as significant in terms of coping with anxiety provoking situations. Effective counselling skills influenced the counselees in a positive way and contributed to the co-construction of a comfortable atmosphere where they voiced their difficulties openly and trusted their counsellor for further actions. Correspondingly, other studies have found that it is essential to adopt a supportive attitude based on empathy and respect in the counselling process in order to maximize the benefits that participants can acquire (Dobson, 2008). Additional characteristics of the counsellor such as flexibility, self-awareness, sincerity, openness to communication, and sensitivity also enhance the efficacy of the consultation process (Corey, 2005). Having these features will contribute to the adoption of a collaborative attitude by the consultants, which will help their participants develop a more positive perspective on themselves and others and learn that both personal and interpersonal problems can be solved (Beck, 2005). Supporting this view, the study findings show that mutual understanding and a sense of trust between the counsellors and the counselees left a positive mark on the participants.

According to the findings of the study, the use of techniques such as automatic thinking, cognitive restructuring and homework assignments in the counselling process was effective in reducing the anxiety levels of the participants. In line with this finding, several studies have highlighted the effectiveness of cognitive behavioural therapy techniques in coping with anxiety, arguing that techniques such as psychoeducation, cognitive restructuring, exposure to internal stimuli, homework assignments and relaxation are effective in reducing it (Olthuis, Watt, MacKinnon, & Stewart, 2014; Otte, 2011; Öngider & Baykara, 2015;

Sertelin Mercan &Yavuzer, 2017; Wood et al., 2009). The aim of cognitive restructuring, in particular, is to change the beliefs of the individual who experiences anxiety (Clark & Beck, 2010) by minimizing and eliminating its symptoms (Beck, 2018). In cognitive behavioural approach, cognitive and behavioural techniques are used, and the importance of giving assignments is emphasized, both during the sessions and outside the sessions (Corey, 2005).

The study findings show that techniques used by the counsellors helped the participants to construct the skills that are necessary for solving their anxiety related problems. As a matter of fact, the counselees listed the benefits of the counselling process as the improvement of problem solving skills, gaining self-confidence and empathizing with others by eliminating self-centred thoughts. In particular, as the literature have addressed, the primary goal of cognitive therapy is to ensure that the counselee is his/her own therapist (Beck, 2005) which was also one of the purposes of the current study. In addition, Stopa and Clark (2000) stated that individuals with high levels of social anxiety perceived their ability and social performance to be low, which led to an increase in their anxiety levels and further deterioration of social performance. Especially in the group guidance and group counselling studies based on the cognitive behavioural approach, this approach was found to be effective in decreasing the anxiety levels of individuals while improving self-esteem levels (Bauer, Sapp, & Johnson, 2000; Bozanoğlu, 2005) and developing empathy skills (Beck, 2005).

In the current study, the participants stressed reducing the number of sessions while demanding a preference for starting these counselling sessions at the beginning of their university education. The fact that they wanted to receive such a service during the first year of university education shows that they have benefited from the consultation process effectively. In particular, the suggestion that the number of sessions should be less indicates that short-term counselling applications may be preferred more by students who plan to benefit from the consultation services. Therefore, short-term counselling sessions that consider cognitive behavioural approach as a medium of psychological support can be planned to assist university students.

Considering the overall study findings, it will be valuable to provide similar guidance services in educational institutions where psychological support is not at the desired level due to the lack of sufficient staff to provide psychological counselling. Psychological well-being of prospective teachers and their healthy transition to the teaching profession is crucial as teachers' negative feelings not only influence learners but also have a profound influence on themselves. The researchers of the study hope that positive findings of the current research will withdraw more interest on different forms of anxiety experienced by prospective teachers and motivate scholars to design similar intervention procedures that will psychologically support their transition to the teaching profession. In this study, the researchers have not included group counselling sessions and our results do not reveal longitudinal effects of the counselling procedure which might be considered by researchers in subsequent studies.

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Testing Multistage Testing Configurations: Post-Hoc vs. Hybrid Simulations

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ABSTRACT

Due to low cost monte-carlo (MC) simulations have been extensively conducted in the area of educational measurement. However, the results derived from MC studies may not always be generalizable to operational studies. The purpose of this study was to provide a methodological discussion on the other different types of simulation methods, and run post-hoc and hybrid simulations in the multistage testing environment (MST), and to discuss the findings and interpretations derived from each simulation method. The real data collected via paper-pencil administrations from 652 students were used to test different MST design configurations under different test lengths. The levels of test lengths were 24-item, 36-item and 48-item. The five levels of MST designs were 1-2, 1-3, 1-2-2, 1-3-3, 1-4-4 and 1-5-5 design. Both post-hoc and hybrid simulations were run with the same group of students. All analyses were completed in R program. The results indicated that in terms of absolute bias, RMSE and pearson correlations, post-hoc and hybrid simulations generally resulted in comparable outcomes. Regardless of the simulation method, the 1-5-5 MST design was the most recommended design. Another finding was that in all simulations, as the test length increased, the outcomes were better, in general. Advantages and disadvantages of each method, and recommendations for practitioner and limitations for future research were provided in the study.

Keywords:
multistage testing, post hoc, hybrid simulation

1. Overview of Multistage Testing

Multistage testing (MST) is a computer adaptive testing method that became popular following its use in 2011 by the Educational Testing Service (ETS) in the Graduate Record Examination (e.g., r-GRE) in 2011 (Davey & Lee, 2011; Yan, von Davier & Lewis, 2014). The MST is similar to the computerized adaptive testing (CAT) but it tailors a set of items (e.g., 15 items) instead of individual items as the CAT does. In the MST, pre-constructed item sets (i.e., known as module) are placed in the stages, and stages (e.g., division of a test) are placed in the panels (Luecht & Sireci, 2011). In stage one, there is typically one module, called routing module, at the medium difficulty level. The modules in other stages are at the different difficulty levels such as easy, medium and hard. This means that each module provides more information for low, medium and high proficiency test takers. A test developer can arbitrarily vary the number of items in modules, the number of modules in stages, the number of stages in panels, and even the number of panels (Hendrickson, 2007). Increasing the number of panels is essential for test security purposes, especially in high stake tests.

In Figure 1, there is an illustration of MST configuration. In this example, there is one module in stage one, and five modules from easiest to hardest in stage two and three. This configuration is named the 1-5-5 panel

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design. A test taker starts the exam by taking the routing module placed in stage 1, and based on his/her performance on this starting module, he/she receives, one of the available modules in stage two. The same thing continues until the test taker completes all of the stages. Then, the computer algorithm calculates the final proficiency estimate of the test taker. Based on the previous work, MST may provide more accurate proficiency (e.g., ability level) estimates with higher number of stages in panels and the number of modules in stages (Patsula, 1999; Zenisky, 2004).

The advantages of multistage testing over CAT include allowing item review, item skip and providing greater control to the test developer (Liu, Bridgeman, Gu, Xu, & Kong, 2015). Even though it is disallowed to revise items in the previous modules, one can still go back to the previously administered items within a module. However, the traditional CAT does not give this chance to a test taker. Similarly, the traditional CAT forces examinees to pick one of the response options for an item, but MST gives examinees the right to skip any test item. A well-known advantage of CAT over MST is producing slightly better measurement accuracy in proficiency estimate due to the item level adaptation (Yan et al., 2014).

Even though MST is relatively new compared to the CAT, there are many monte-carlo studies that have been conducted to test many aspects of MST including proposal of different test assembly methods (Luetch, 2000; Luecht & Nungester, 1998), stage and module configuration (Patsula, 1999), content balancing issues (Sari & Huggins-Manley, 2017), and new routing rules (Luetch, 2000; Sari & Raborn, 2018; Thissen & Mislevy 2000). All of these monte-carlo (MC) simulation studies are highly valuable in terms of making a forecast for multiple research questions in the area of psychometrics and finding better solutions for the problems encountered in operational studies (Feinberg & Rubright, 2016). However, MC simulations generally rely on strong assumptions such as no incomplete data, well-fitting with the model and data, no software bugs and ideal optimizations with automated test assembly (ATA) for module building. Unfortunately, these assumptions can be violated in real administrations, and violations may affect the test outcomes. For example, many simulations use Birnbaum's (1968) three parameter (3PL) item response theory (IRT) model, however the 3PL model does not always converge in operational applications of IRT models (de Ayala, 2009). Also, while it is much easier to find a solution for panel and module assembly in simulations, optimization problems can always occur in an operational study. Thus, there is always a possibility that recommendations and interpretations derived from MC simulation studies may not generalize well to real test administrations.

One possible way to overcome these potential problems in educational and psychological measurement is to conduct either a post-hoc (PH) or hybrid (H) simulations. In post-hoc simulations, instead of generated item responses, real item-response vectors, gathered from either a paper-pencil test or operational adaptive test, are used to run simulations (Thompson & Weiss, 2011). However, due to time and cost, it is not easy to obtain real responses to a large number of test items. The hybrid simulations use a combination of real and simulated item responses when running the simulation thus it can be a remedy for this problem. In hybrid simulations, based on the available responses, the missing ones are filled, then analysis is done using the hybrid data. According to Thompson and Weiss (2011), hybrid or post-hoc simulations may produce the closer results to the real adaptive testing applications than fully-generated data. Hence, more attention should be given to these two types of simulations.

Post -hoc simulations (see Bulut & Kan, 2012; Kalender & Berberoglu, 2017; Weiss & Gibbons, 2007) and hybrid simulations (Nydick & Weiss, 2009) have been highly conducted in the area of CAT. Even though, the MST is a new trend in today's testing world, to the best of my knowledge, the MST literature, does not contain such a study that illustrates an application of post-hoc and hybrid simulations. This study aims to conduct the two simulation studies as post-hoc and hybrid simulations, and compare the MST configurations under varying test length conditions. The goal of this unique study is to explore the precision of the test outcomes across the same group of students under different simulation methods, and compare the results of different simulation techniques with another, as well as to discuss the strengths and weaknesses of each method.

2. Theoretical Framework

In post-hoc simulations, real response vectors (usually collected via a paper-pencil administration) are used to run simulations. As detailed in Nydick and Weiss (2009), first the item parameters are estimated by using a real response matrix. Then, person parameters (e.g., ability estimates) are estimated based on the estimated item parameters. Finally, in order to test specified study conditions, a PH simulation is conducted using the real response vectors. The person parameters, calculated in the full-scale (e.g., original whole data) estimates, are treated as true person parameters, and then simulation-produced person parameters are compared with those true person parameters. The PH simulations are similar to MC simulations but differ in that an actual response matrix is used to run simulations. In order to do this, a response vector including responses to all items must be available for all examinees (Thompson & Weiss, 2011). This means that all examinees included in the PH analysis must take all items in the bank. The broad research question in PH simulations is that what happens if these examinees took the test on these items (Nydick & Weiss, 2009).

PH simulations can be reflective for the operational studies; however, administering all items to all test takers is fairly difficult. This is because there is always the likelihood that some of the students do not attend some of the test administrations, and this results in not having reached items (e.g., not administered) in the data. Instead of removing, hybrid simulations can be invaluable to keep those people in the analysis. In hybrid simulations, an item bank is divided into several test forms that include common items and, each of the test form is administered to different groups of students. Then, item response matrix including actual responses is analyzed for estimating item and person parameters. After then, based on the estimated person parameters (e.g., theta), responses to not administered items are imputed, and a new response matrix having actual and simulated responses is obtained. Finally, the response data is re-analyzed for estimating item and person parameters. The broad research question in H simulations is that what happens if all examinees took all test items (Nydick & Weiss, 2009).

3. Research Questions

1. How will the test outcomes be impacted when the test length and MST design are varied in the PH simulation study?
2. How will the test outcomes be impacted when the test length and MST design are varied in the H simulation study?
3. How will the interpretations, derived from the test outcomes, be impacted across the PH and H studies under the same test length and MST design conditions?

4. Method

4.1. Building Item Pool

In this study, I first created eight test forms that included 8th grade math items. The test forms were designed so as to be essentially parallel in terms of difficulty and content balancing (e.g., numbers, algebra, equations etc.). There were 25 multiple choice (aka dichotomously scored) items in each form, and for a total of 200 items. Then, I administrated each test form to the same group of 652 students from 11 elementary schools in the 2018-2019 academic school year. After obtaining the response vectors, I first checked the dimensionality of the data separately to ensure I meet with the unidimensionality assumption for each form. Specifically, I ran the confirmatory factor analysis (CFA) with no correlated residuals for any pair of items. The CFA provided either perfect or acceptable fit for each subset. After that, I fit the whole data with the Rasch (Rasch, 1960) model to estimate item (e.g., difficulty) and person (e.g., ability scores) parameters by using concurrent calibration method (Nydick & Weiss, 2009). Finally, I removed 12 items that did not fit with the model (i.e., due to extremely high or low difficulty parameter), retained 188 items in the item bank, and re-run analyses with those remaining items.

The difficulty parameters of the retained items ranged from -1.88 to 1.42, with the mean of -0.23 and standard deviation of 0.61. The theta estimates of full scale were ranged from -2.13 to 3.14 with the mean of -0.33 and standard deviation of 1.08. Test information function for the original item bank with 188 items was given on Figure 2-a.

4.2. Multistage Testing Design

The manipulated study conditions were MST design configuration with six levels and total test length with three levels. The six levels of configuration include 1-2, 1-3, 1-2-2, 1-3-3, 1-4-4 and 1-5-5 designs. The three levels of test length include 24-item, 36-item and 48-item. All manipulated conditions were fully crossed with one another. This resulted in 18 conditions in each simulation method. Regardless of the MST design and test length, the modules always had equal numbers of items. For example, in 36-item and 1-4-4 design condition, each module is comprised of 12 items, and the panel is comprised of 108 items (12 items x 9 modules).

The model used in this study is Rasch model (Rasch, 1960) which is commonly used in operational adaptive testings (Barnard, 2018) and defines the probability of getting item i correct for person p (Xip=1) as;

$$P(Xip = 1|\theta p) = \frac{e^{1.7(\theta_p - b_i)}}{1+e^{1.7(\theta_p - b_i)}}, \quad (1)$$

where b_i is the item difficulty for item i, and θ_p is the latent ability score for person p.

Routing method is one of the most important elements of MST, and used to select the next module during the MST administration. In this study, I used maximum Fisher information (MFI) (Lord 1980; Thissen & Mislevy 2000) as the routing method. The item and test information function is essential for this method. MFI method calculates item level and module level (e.g., test level information) from the Equation 2, and selects the next module that maximizes the information for the current ability estimate. The item information for item i is calculated as;

$$I_i(\theta) = P_i(\theta)Q_i(\theta), \quad (2)$$

where θ is the ability level, $P_i(\theta)$ and $Q_i(\theta)$ are the probability of getting item i correct and incorrect, respectively. The total test information for a module (I_T) is the sum of the item information in a module and defined as;

$$I_T(\theta) = \sum_{i=1}^{N} I_i(\theta)_{\ i}, \quad (3)$$

where N is the total number of items in a module. This equation is used to run automated test assembly when building modules in all MST designs.

The automated test assembly was completed in IBM CPLEX (ILOG, Inc., 2006). First, items at similar difficulty levels were clustered into different modules, and then modules were assigned to the panel. Due to the limited number of items, one panel was built. In the two simulation studies, the items in routing modules were chosen from medium difficulty items (e.g., items that maximize information function at theta point of 0). The peaked information function points for the modules in other stages were varied from -1 to 1. Depending on the design, the difficulties of other modules were evenly distributed in this range. One can refer to Table 1 for the difficulty levels of the modules in all stages across the different MST designs. For the illustration purposes, the plots of module level information functions in 1-5-5 MST design under 48-item test condition across the post-hoc and hybrid simulations were provided in Figure 3. The plots across all specific study conditions are available upon request. The two simulations were completed in R version 2.1.1 (R Development Core Team, 2009-2015).

4.3. Study 1: Post-Hoc Simulation

This study was conducted with 263 examinees who attended all paper-pencil administrations. This means that any student that took less than eight test forms was removed from the post-hoc simulations. Item parameters were the estimates obtained in the full scale analysis (e.g., whole data estimates). The ATA was run with those item parameters to build the panel. Similarly, the true abilities of 263 people were the estimates in the full scale analysis. The real item responses belonging to 263 students were used to run varied conditions. The ability estimates calculated in the post-hoc simulations were compared with full scale ability estimates.

4.4. Study 2: Hybrid Simulation

This study was conducted with the same 263 students who attended all paper-pencil test administrations. After full scale estimates across the 652 students, all missing responses were imputed by using 'mice' package (Buuren & Groothuis-Oudshoorn, 2011) in R program. Then, a new response vector (e.g., imputed data) consisting of both real and imputed responses were re-analyzed to estimate item and person parameters. The difficulty parameters of the items ranged from -1.80 to 1.17, with the mean of -0.29 and standard deviation of 0.55. The theta estimates of hybrid data were ranged from -1.79 to 3.08 with the mean of -0.36 and standard deviation of 0.98. Test information function for this item bank with 188 items was given on Figure 2-b. The ATA was run with those new item parameters to build the modules in the panel. The person parameter estimates of the imputed data were treated as true abilities, and the ability estimates in the hybrid simulations were compared with those true abilities. For a fair comparison, the results of the same group of examinees in the hybrid simulations were compared with the those in the post-hoc simulations.

4.5. Evaluation Criteria

I evaluated the results of the study using the criteria as suggested and used in similar studies (see Bulut & Kan, 2012; Weiss & Gibbons, 2007). I calculated the following statistics: 1) absolute bias, 2) root mean squared estimate (RMSE) and 3) Pearson correlation coefficients between the true abilities and simulation-produced estimates. These statistics were computed from the following formulas.

$$\text{Absolute Bias} = \frac{\left|\hat{\theta}_j - \theta_j\right|}{N}$$

$$\text{RMSE} = \sqrt{\frac{\sum_{j=1}^{N}\left(\hat{\theta}_j - \theta_j\right)^2}{N}}$$

$$\text{Pearson Corelation} = \frac{Cov(\hat{\theta}_j, \theta_j)}{\sigma_{\hat{\theta}_j} * \sigma_{\theta_j}}$$

where N is the number of examinees, $\hat{\theta}_j$ and θ_j are the estimated and true ability parameters, and $\sigma_{\theta j}$ and $\sigma_{\theta j}$ are the standard deviations of the estimated and true ability parameters, respectively.

5. Results

5.1. Results of Post-Hoc Simulation Study

The results of absolute bias, RMSE and Pearson correlations across all study conditions obtained in post-hoc simulations were given in Table 2. The graphical illustrations of these outcomes were provided in Figure 4 (see left side). The first finding was that as the test length increased, absolute bias and RMSE decreased and pearson correlations increased with a few exceptions (e.g., 1-2-2 design & 24-item vs. 36-item and 1-5-5 design & 24-item vs. 36-item). The effect test length was more obvious under 1-2-2 and 1-3-3 MST designs and less obvious in 1-5-5 MST design. The second finding was that under the same test length condition, the lowest absolute bias and RMSE and highest correlation were always found in 1-5-5 MST design. Another finding was that the outcomes and, hereby, interpretations differed across the different MST designs. For example, under 24-item test length condition, both 1-2 and 1-3-3 MST designs produced the same amount of absolute bias (e.g., 0.63) and RMSE (e.g., 0.78). However, when the test length increased, the differences in both outcomes between the two MST designs became more obvious. This means that as the test length increased the advantage of MST design complexity was clearly seen. Overall, both test length and the type of MST design played important roles on the outcomes; however, the effect of MST design was more obvious under higher test lengths.

5.2. Results of Hybrid Simulation Study

The findings were similar to those obtained in post-hoc simulations. The first finding was that as the test length increased, absolute bias and RMSE decreased with a few exceptions (e.g., 1-2-2 design & 24-item vs. 36-item). The second finding was that under the same test length conditions, the 1-5-5 MST design always outperformed the other MST designs. The third finding was that the 1-2 MST design was the least affected and 1-3-3 design was the most effected designs from the changes in the test length. In terms of pearson correlations, there were similar interpretations, and the benefits of increasing test length were more clearly seen.

6. Discussion and Limitation

Today, simulation techniques have become an integral part of psychometrics. There are different types of simulation methods used to test desired conditions; however, when the term of simulation is used, monte-carlo simulation comes to mind. This is because monte-carlo simulations are the dominantly used method by researchers and practitioners in relation to educational and psychological measurements. Whereas, simulation studies are not limited to the MC simulations. The purpose of this study was to provide a methodological discussion on the two types of simulation methods, and to show how to run post-hoc and hybrid simulations in the multistage testing environment, and to discuss the findings and interpretations derived from each simulation method.

The results of the study showed that in terms of absolute bias, RMSE, and pearson corrrelations, H and PH simulations resulted in comparable outcomes. The reason was that a small proportion of the data used to run H simulations was comprised of simulated data (i.e., 18%). However, in typical H simulation studies, the hybrid data consists of a greater proportion of generated data (e.g., up to 87%) (see Nydick & Weiss, 2009). There is a tradeoff between having more or less amount of generated data in H simulations. Having a lower proportion of generated data would make the data more realistic, and may yield less biased outcomes due to having more responses to higher number of items (Nydick & Weiss, 2009). The opposite would add additional source of error to the original data, however, having more proportion of real data is not always practical due to time, cost and test fatigue.

In both types of simulation studies, as the complexity of MST design increased, better results were obtained, in general, and the 1-5-5 MST design was the most recommended design. This means that having more stages, and more number of modules in the stages improved the measurement accuracy.

In the two simulation studies, as the test length increased, the outcomes were better, in general. However, some exceptions occurred in both simulation methods. This was likely due to having limited number of items in the item bank. Having more (and psychometrically good) items would have improved the automated test assembly decisions, and the effect of increasing test length would have been more obvious.

This study does not argue that MC simulations are incorrect or should no longer be used in multistage testing studies. Instead, the study argues that all three types of simulations have unique benefits and practical advantages in the implementation of operational studies. For example, in PH or H simulations studies, the quality of real data is always a concern. This is because test fatigue, the motivation of the test taker, test cheating, improper estimations for item and person parameters is always a potential risk in such studies. Since these potential risks would add additional source of random error to the test outcomes, and lead to uncertainty in the predictions (Nydick & Weiss, 2009). Hence, the interpretations derived from real or partially real data studies may not be generalized over the operational MST studies in educational and psychological measurement. Furthermore, MC simulations allow simultaneous testing of a variety of different scenarios with no cost. Considering the cost to be spent for writing test items in today's market, this advantage is enough to make MC the heart of simulations in the field of psychometrics.

PH and H studies also have their own advantages. MC simulations assume ideal conditions (e.g., a person with the ability level of θ is going to get item i correct). However, in real applications, practitioners do not always have the expected response vectors, and missing responses are inevitable. These would make it difficult to draw valid interpretations. Combining the advantages and disadvantages of the two simulation methods, even though the precision of outcomes were very comparable with PH study, the hybrid simulations can be recommended to run an MST simulation for making decisions in an operational MST. This is because in H simulations, a greater number of real examinees was used than PH studies which would make the study more powerful. As illustrated in Nydick and Weiss (2009) that H simulations with up to 80% imputed data can be as efficient as the outcomes obtained with the other simulations. Furthermore, H simulations can be a good solution for the practical limitations of PH studies such as examinee drop out, fatigue and time.

The ultimate goal of the study was to provide a unique comprehensive discussion on how different simulation techniques that could be decided and implemented in the MST environment, and the strengths and weaknesses of each method. The aim was to explore whether interpretations and recommendations were always the same within each simulation study. Even though the proportions of complete responses were different in both studies, the interpretations were quite similar. However, post-hoc simulations produced those results with a less amount of effort and cost.

In this study I used maximum Fisher information method as the routing method. A future study can be conducted by using number-correct method or D-scoring (Han, Dimitrov, & Al-Mashary, in press) as the routing strategy. It is important to note that in traditional hybrid simulations, each examinee takes a single test form, and responses to all remaining items are imputed (Barnard, 2018). This means that a huge proportion of the data is imputed, and a small proportion is actual data. However, many of the students attended more than five paper-pencil test administrations. Hence, 18% of the responses in the data were comprised of imputed data, and 72% was comprised of real item responses. As detailed in the previous sections, compared to traditional H simulations, relatively less proportion of imputed data was used in H simulations, and this lead to obtaining similar findings with PH simulations. A further H study should be replicated with less proportion of real data and a higher proportion of imputed data. Lastly, the item bank in this study contained 188 items. Another study should be conducted with different item bank sizes.

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Table 1. Peaked Information Function Points Across The MST Configurations

Design	Routing	Stage 2 Modules (Easiest to Hardest)	Stage 3 Modules (Easiest to Hardest)
1-2	θ_1=0	θ_1=-1.0, θ_2= 1.0	-
1-3	θ_1=0	θ_1=-1.0, θ_2=0, θ_3= 1.0	-
1-2-2	θ_1=0	θ_1=-1.0, θ_2=1.0	θ_1=-1.0, θ_2=1.0
1-3-3	θ_1=0	θ_1=-1.0, θ_2=0, θ_3= 1.0	θ_1=-1.0, θ_2=0, θ_3= 1.0
1-4-4	θ_1=0	θ_1=-1.0, θ_2=-0.50, θ_3=0.50, θ_4= 1.0	θ_1=-1.0, θ_2=-0.50, θ_3=0.50, θ_4= 1.0
1-5-5	θ_1=0	θ_1=-1.0, θ_2=-0.5, θ_3=0, θ_4=0.5, θ_5=1.0	θ_1=-1.0, θ_2=-0.5, θ_3=0, θ_4=0.5, θ_5=1.0

Table 2. Results of Post-Hoc Simulation

Design	Absolute Bias			RMSE			Pearson Correlation		
	24 item	36 item	48 item	24 item	36 item	48 item	24 item	36 item	48 item
1-2	0.63	0.56	0.53	0.78	0.70	0.68	0.88	0.90	0.91
1-3	0.58	0.54	0.44	0.68	0.67	0.54	0.89	0.90	0.93
1-2-2	0.57	0.66	0.50	0.70	0.81	0.60	0.87	0.88	0.92
1-3-3	0.63	0.52	0.41	0.78	0.62	0.52	0.88	0.92	0.93
1-4-4	0.50	0.52	0.40	0.60	0.62	0.51	0.90	0.92	0.93
1-5-5	0.45	0.44	0.38	0.57	0.61	0.47	0.91	0.93	0.94

Table 3. Results of Hybrid Simulation

Design	Absolute Bias			RMSE			Pearson Correlation		
	24 item	36 item	48 item	24 item	36 item	48 item	24 item	36 item	48 item
1-2	0.63	0.54	0.53	0.78	0.68	0.67	0.88	0.90	0.91
1-3	0.56	0.57	0.45	0.68	0.69	0.55	0.89	0.89	0.93
1-2-2	0.54	0.63	0.47	0.66	0.78	0.58	0.88	0.88	0.93
1-3-3	0.64	0.53	0.44	0.79	0.63	0.55	0.88	0.92	0.93
1-4-4	0.51	0.46	0.46	0.62	0.58	0.56	0.89	0.92	0.93
1-5-5	0.45	0.48	0.35	0.56	0.60	0.44	0.91	0.92	0.94

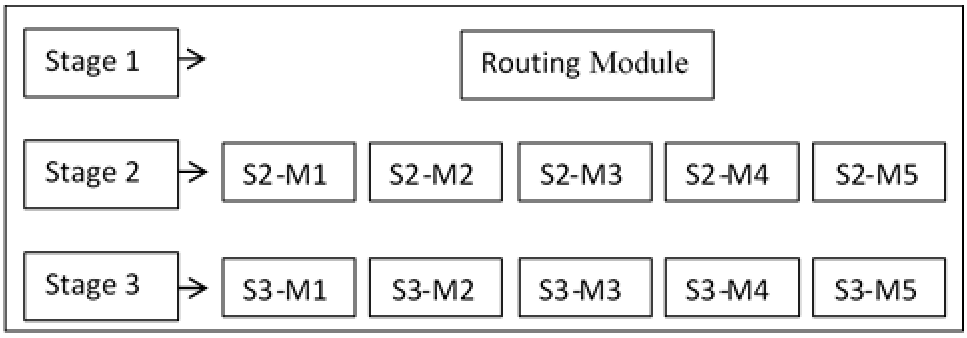

Figure 1. An example of 1-5-5 MST panel design
Note: S=Stage, M=Module

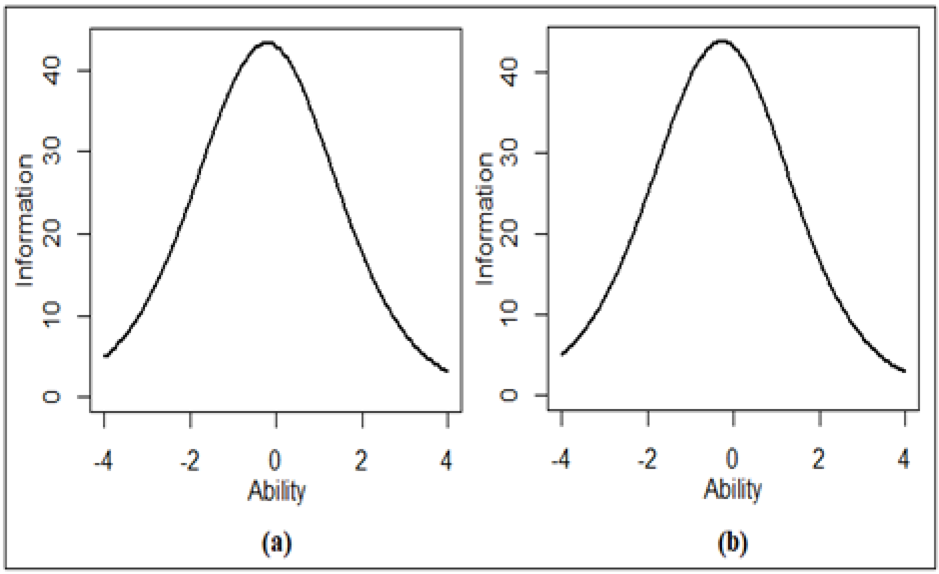

Figure 2. Test information function plots for the original (a) and hybrid simulation (b) item banks.

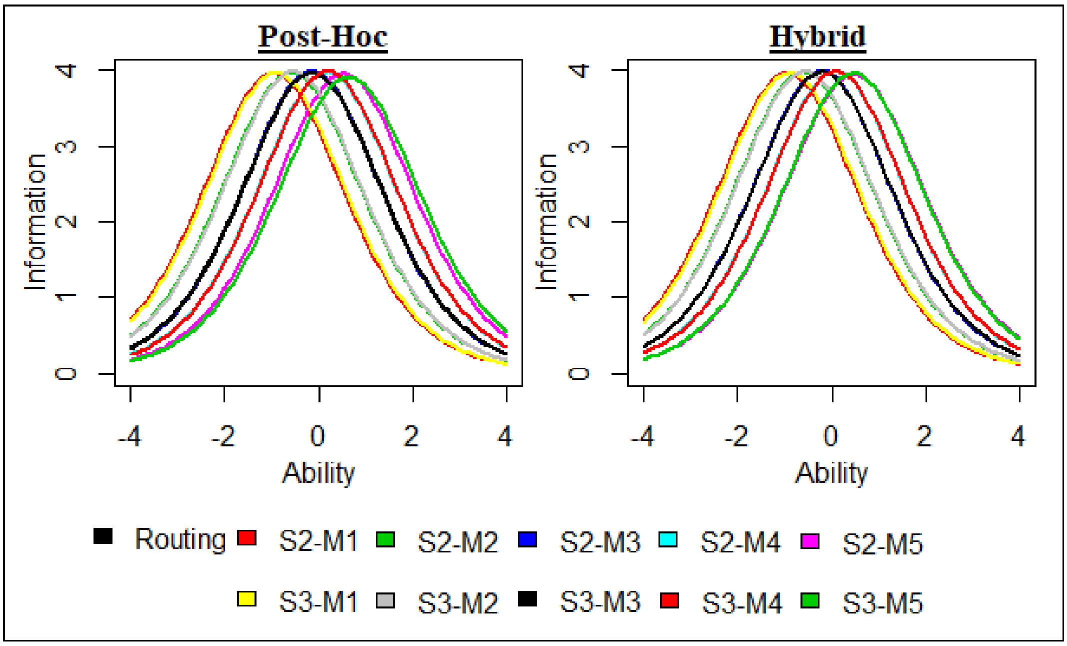

Figure 3. Module information function plots in 1-5-5 MST design under 48-item test condition across the post-hoc and hybrid simulations.
Note: S=Stage, M=Module

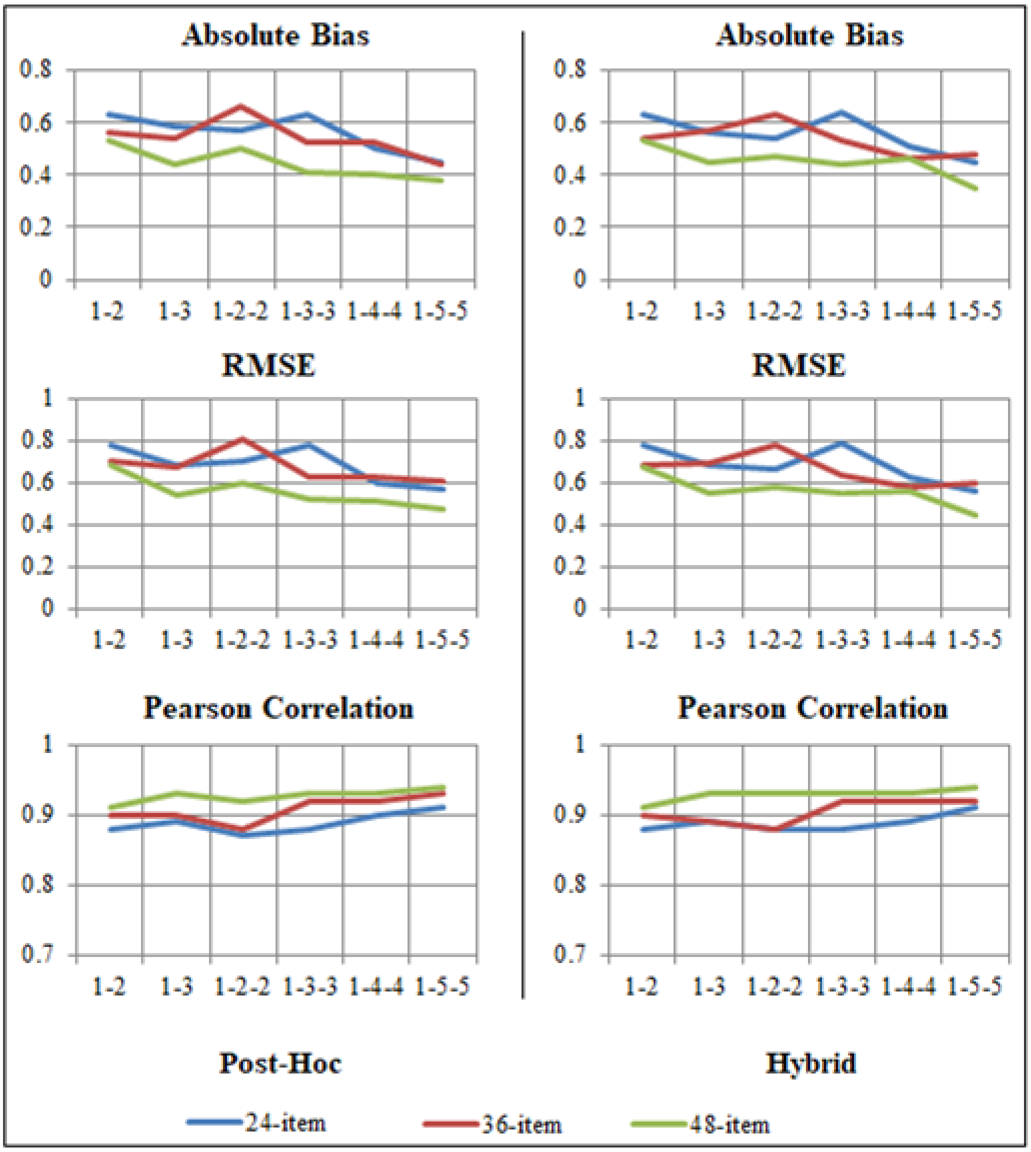

Figure 4. Graphical illustrations of absolute bias, root mean square error (RMSE) and person correlations across the different MST designs and test length conditions in post-hoc and hybrid simulations.

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An Organizational Factor Predicting School Effectiveness: School Climate

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ABSTRACT

The purpose of this study is to determine whether the school climate affects school effectiveness. For this purpose, quantitative research relational screening model was used in the study. The research was conducted in 2018-2019 academic year and 341 teachers participated voluntarily. In the research, The Organizational Description Climate Scale for Elementary Schools (OCDQ-RE]) developed by Hoy and Tarter (1997) and adapted to Turkish culture by Yılmaz and Altınkurt (2013) was used together with The School Effectiveness Index, which was developed by Hoy (2014) and adapted to Turkish culture by Yıldırım (2015). The data were analyzed by correlation and regression analysis. According to the findings, school climate predicts school effectiveness. The findings were discussed with the results of other researches in the literature and suggestions were made to the administrators and teachers.

Keywords:
Effective, School effectiveness, school climate

1. Introduction

Education plays a vital role in promoting the development of human capital necessary for economic growth, as well as supporting the individual and society to develop their social, economic and cultural aspects. Especially modern education and schools aims to communicate the knowledge, skills and behaviors that young people need to be functional in society. Basically, schools are expected to contribute to the progress and development of society (Rapti, 2012). However, the level of service quality, effectiveness and efficiency produced by schools; in other words, it is a matter of curiosity about how effective it is on school outcomes / student acquisitions. Because governments make large amounts of investments and expenditures for the education offered by schools. For this reason, it is inevitable that the effectiveness of schools will be questioned by policy makers, researchers and the society and become a subject of research. Attempts to determine the effectiveness of a school are central to ensuring that the school has the desired impact at the student level and to improve schools' teaching and learning environment (Ramberg, Laftman, Almquist, & Modin, 2019).

In order to say that an organization is effective, empirical evidence of effectiveness is required. When literature is examined, important studies to determine the effectiveness of schools are found (Averch, Carrol, Donaldson, Kiesling, & Pincus, 1972; Coleman, Campell, Hobson, McPartlana, Mood, Weinfeld, & York, 1966; Jencks et al., 1972; Purkey and Smith, 1983; Weber, 1971). The first research to determine school effectiveness was conducted by Coleman et al. (1966). Coleman et al. (1966) found that student background characteristics (family history and socioeconomic status) were more powerful than school-level factors in determining student achievement. Other studies in this area include extensive research to determine the impact of schools

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on students' academic performance (D'Amico, 1982). However, many subsequent studies have proved a significant impact of the school on student achievement (D'Amico, 1982; Doran, 2004; Whetten & Cameron, 1984). For example, Edmonds (1979) found that the reasons for the success difference between the two schools were the behavior, policies and practices of school management. In this sense, the main purpose of school effectiveness research is to find out the factors that affect the education aimed by the school (Creemers, Stoll, Reezigt, & ESI Team, 2007), to focus on what can be done at organizational level instead of the effects of individual characteristics and to improve school outcomes (Ramberg, Laftman, Almquist, & Modin, 2019). Lezotte (1991) stated that effective school research is based on two assumptions. The first assumption is that school development is an endless journey. Second, effective schoolwork serves the mission that every student can learn.

Today, discussions and studies on what constitutes school effectiveness are continuing. School effectiveness can be expressed as the degree to which the educational, organizational and administrative goals of the school are achieved. Although school effectiveness is very much in the field of education administration and is the subject of research, the uncertainty of the factors that affect school effectiveness and the uncertainty caused by continuous change still necessitates researching school effectiveness. Because, as an indicator of success of education systems, school outcomes are taken as criteria. Various indicators have been identified to determine whether a school is effective. In this sense, success levels and student achievements in standardized tests, teaching and learning processes in the classroom, schooling rate, social cohesion and citizenship, moral and ethical values, leadership behaviors, confidence level, culture and climate, parental participation, teacher effectiveness/performance, teachers' organizational and occupational commitment, loyalty and satisfaction are accepted as the most important characteristics of effective schools (Bridglall, Caines, & Chatterji, 2014; Mendro, 1998; Özgenel & Mert, 2019; Özgenel & Topal, 2019; Uline, Miller, & Tschannen-Moran, 1998). In summary, effective school variables characteristics were identified as school success factors (Çobanoğlu & Badavan, 2017). Creemers et al. (2007) considers these factors in two dimensions as at school (positive attitude towards change, school culture, shared values, educational vision and mission, leadership, parental involvement, etc.) and class (teacher motivation, participation in processes and decisions, professional development and education, etc.).

The first study to determine the characteristics of effective schools was made by Edmonds (1979), and then by Lezotte (1991, 2001) 7 characteristics / characteristics of effective schools were determined. These are: *(i)* a safe and orderly environment, *(ii)* a climate of high expectation for success, *(iii)* an open and focused mission, *(iv)* learning opportunities and effective use of time, *(v)* continuous monitoring of student development; family relations; and *(vii)* instructional leadership. Doran (2004) revealed in his literature review that many researchers made different classifications about effective school characteristics and collected these characteristics in 13 themes. These; leadership, high expectations, rules and discipline, mission focus, monitoring process (assessment and evaluation), positive / supportive climate, time emphasis on duty, parent/community participation, staff development, basic skills, teacher participation in decisions, grouping procedures, teacher quality and other elements. Etxeberria, Intxausti and Azpillaga (2017), in their study, reported that high-impact schools in general have teachers live together in a safe, peaceful and conflict-free environment of the school community with a set of democratic rules, conflict resolution attitudes characterized by reconciliation and agreement, and a sense of mutual support of the teacher-management team, and that each school has agreed on its own vision. In summary, they have a good / positive climate. They emphasized the importance of having a stable team of teachers in order to create a positive/good climate. Although different characteristics have been proposed as to the characteristics of effective schools, many researchers agree on the "school climate" characteristics (Doran, 2004; Etxeberria, Intxausti, & Azpillaga, 2017; Scheerens, & Creemers, 1989; Şişman, 1996; Turhan, Şener, & Gündüzalp, 2017; Uline, Miller, & Tschannen-Moran, 1998; Whetten & Cameron, 1984). In other words, effective schools, administrators, teachers and other employees have a climate that believes that all students can learn and reflects this on their behavior (Lezotte 1991). Since qualified education is accepted as important and valuable, nowadays, the necessity to improve and improve the quality/effectiveness of schools has emerged. One key to developing schools is the creation of a positive school environment / climate, which is directly stated to have an impact on students, teachers and other employees and indirectly on school outcomes. The rationale behind this view is the expectation that the school environment / climate will positively affect the performance of administrators, teachers and other employees, and ultimately lead to improvements in student attainment.

In general terms, school climate is defined as the sum of the beliefs, values and behaviors of students, teachers, leaders and parents (Rapti, 2012), the spirit of the school (Austin, O'Malley, & Izu, 2011) and personality (Brown et al., 2004; Cohen et al., 2009; Halpin & Croft 1963; Hoy & Miskel, 2010; Rapti, 2012; Welsh, 2000). School climate refers to the conditions or quality of the learning environment (Austin, O'Malley, & Izu, 2011). According to Rapti (2012), the school climate affects the individual's feelings and the desire for commitment. School climate is the sum of organizational values, cultures, educational practices and the relationships of school stakeholders within a school. In another perspective, the school climate is likened to a mythological monster (unicorn) that is metaphorically imagined but not found. Given the subjective nature of school climate, organizational climate researchers have similar ideas that it is very difficult to yak capture the beast ((Anderson, 1982). "Subjectivity" in this analogy refers to the fact that each school has different climatic characteristics. Purkey and Smith (1983) stated that a regular school climate has clear, reasonable and consistent rules. In fact, such a school climate emphasizes the potential of the school to help even at-risk students succeed, help them socialize, and make a difference (Austin, O'Malley, & Izu, 2011).

What kind of climate each school has and what kind of characteristics these climates show attracted the attention of researchers? The first study to determine /classify school climate dimensions/types was made by Halpin and Croft (1963). They have differentiated different climatic types in schools and identified 6 different climatic types. These; open climate, controlled climate, autonomous climate, paternal climate, intimate and closed climate. In other words, Halpin and Croft have classified the school climate from an open climate to a closed climate. According to Halpin and Croft (1963), the open climate is an energetic and lively organization advancing towards its goals and meeting the social needs of group members. In a closed climate, the organization is stagnant, the members of the group are not sincere and the spirit of unity in the organization is low. In other words, the open school climate is a sincere climate in the behavior of both the principal and all staff. Teachers work well together and are committed to their tasks. Leadership actions occur easily and appropriately as needed. In an open school, the success of the task or the satisfaction of social needs emerges spontaneously. On the other side, indoor climate is the antithesis of open climate (Hoy, 1990). Hoy Tarter and Kottkamp (1991) determined the dimensions of school climate as supportive, mandatory and restrictive principal behaviors and sincere, cooperative and unconcerned teacher behaviors:

- ✓ *Supportive principal behavior* reflects the manager's interest in teachers. The principal listens to the teachers, is open to the suggestions of the teachers, makes criticism constructively, praises the employees frequently, respects the competence of the employees, supports both the personal and professional development of the teachers.
- ✓ *Directive principal behavi*or is strict and control oriented. The Principal seeks to provide continuous monitoring and control over all teachers and school activities to the smallest detail.
- ✓ *Restrictive principal behavior* is more than facilitating the teacher's work. Principal assigns unnecessary tasks to teachers other than their basic duties and responsibilities.
- ✓ *Collegial teacher behavior* supports communication and professional interaction between teachers. Teachers are proud of their schools, enjoy working with their colleagues and respect each other.
- ✓ *Intimate teacher behavior*, teachers know their colleagues very well and friendship ties are strong. They socialize by providing social support to each other.
- ✓ *Disengaged teacher behavior* means unwillingness to participate in professional activities. Although teachers are reluctant to participate in group work, they do not have common goals and productivity, their behavior in school is often negative.

In the context of school climate, the school's goal is to create an open / positive climate. However, how to create this is another problem. According to Austin, O'Malley and Izu (2011), in order to create a positive school climate, schools recruit qualified teachers and strive to stay in school. Students are provided with a safe learning environment for learning and development. Differences between socio-economic status, ethnicity, race, gender and / or sexual orientation are recognized and respected. Continuously high expectations for success are targeted. Students are offered engaging and meaningful learning opportunities (Austin, O'Malley, & Izu, 2011).

Freiberg and Stein (1999) compare the positive school climate to the "preservation of the beauty of a garden". They stated that motivation, evaluation, development of teachers and teamwork are necessary for the protection of this garden. Thus, a positive school climate achieves two goals. First, it motivates staff to teach and learn students with the goal of creating a positive school environment. Second, a positive school climate creates conditions that reduce or eliminate students' learning disabilities. These schools support the physical, social, emotional and intellectual development of students (Austin, O'Malley, & Izu, 2011). However, there are many factors that play a role in creating a positive school climate. These are: the quality of the interaction/communication of the school community, the personality of the school, environmental factors, academic performance / achievement, school safety and size, the level of trust and respect of the groups in the school (quality of interaction, personality of school, enviromental factors, academic performance, safety and school size) (Trust and respect) (Rapti, 2012). Researchers examined the organizational climate in four dimensions. Ecology focuses on the overall physical nature of buildings, the surrounding neighborhood and the school. Environment is the school-related individuals and groups such as teachers, students, administrators and parents. The social system is the relationship, communication and interaction of stakeholders in a school. Culture is related to the groups and individuals in the school (Anderson, 1982).

Here are many studies that reveal that school climate affects students' academic outcomes, behaviors, school commitment and adaptation to school outcomes (Berkowitz et al., 2017; Bosworth, Ford, & Hernandaz, 2011; Brault, Janosz, & Archambault, 2014; Cohen et al., 2009; Calik et al., 2009; Eliot et al., 2010; Gregory et al., 2010; Hopson & Lee, 2011; Hoy, Smith, & Sweetland, 2002; Konold & Cornell, 2015; Kuperminc, Leadbeater, & Blatt, 2001; Kuperminc et al., 1997; Loukas, Suzuki & Horton, 2006; MacNeil, Prater, & Busch, 2009; Martin et al., 2004; Mullis, Martin, & Foy, 2008; Özdemir, 2015; Özgenel, Çalışkan Yılmaz and Baydar, 2018; Ramberg, Laftman, Almquist, & Modin, 2019; Schotland, 2011; Simons-Morton et al., 1999; Thapa et al., 2013; Wang, Chow, Hofkens, & Salmela-Aro, 2015; Wang, Selman Dishion, & Stormshak, 2010; Welsh, 2000). In addition, it is pointed out that there is a relationship between a positive school climate and factors such as teacher competencies, teaching belief, cooperation between teachers, teacher job satisfaction, professional development and adoption of different teaching techniques (OECD [TALIS], 2009). However, it has been observed that there are few studies to determine the level of predicting / influencing school effectiveness of organizational features such as climate. For example, Turhan, Sener and Gündüzalp (2017), especially in our country/acting school in Turkey, school effectiveness and school improvement issues that enough research done and have stated that the need for new research. In line with this proposal, the aim of the study is to determine the extent to which school effectiveness affects the school climate and to provide a better understanding of how school effectiveness can be improved through school climate. In addition, to determine the relationship between these two variables, the change in school climate can lead to change in school effectiveness and to be included in the school effectiveness improvement plans and to provide a proven factor. Thus, a link between school effectiveness and school climate can be established based on research findings. It is argued that the school climate should be positive not only among students but also among teachers in order to provide effective education (Rapti, 2012). Determining the relationship between school climate and school effectiveness can help to improve teachers' performance for more effective possible educational activities and can help administrators solve many school problems. In order to understand why school effectiveness research is needed, in other words, to understand the school environment as a justification, the information gap to determine and control the variables that affect the educational activities in the school, to improve/develop student outcomes / achievements and to ensure the efficient and effective management of the school can be shown. Examining the factors affecting teachers' perceptions/emotions about school effectiveness is important in understanding how schools will be developed. In the study, school climate which is thought to affect school effectiveness was accepted as an independent variable. School climate, as an organizational useful/necessary variable, can have a significant benefit/contribution to school effectiveness. Research in this respect can provide teachers and administrators with a point of view and clues to draw attention to the importance of school climate and to policymakers to consider school climate in implementing school reforms. It is assumed that a positive school environment increases effective teaching and as a result, student learning performs better (Rapti, 2012). The starting point of improving the performance of students and teachers is improving the school environment, in other words, the school climate. For this reason, the school climate can attract the attention of school administrators/leaders who have made or intend to do various initiatives or studies towards becoming an effective school and can give an insight into this path.

2. Methodology

2.1. Research Model

The purpose of this research is to determine the relationship between school climate and school effectiveness and to find out whether the school climate predicts school effectiveness. The study was carried out according to the correlational survey model frequently used in quantitative research methods in accordance with the purpose of the research. The correlational survey model is a research model that measures the degree of change of variables together and how the independent variable (school climate) affects the dependent variable (school effectiveness (Brink & Wood, 1998; Salkind, 2003).

2.2. Study Group

A total of 341 teachers working in public schools in the Anatolian side of Istanbul participated. The demographic information of the volunteer teachers is given in Table 1.

Table 1. Teachers' demographic information frequency and percentage values

	Groups	*f*	%
Gender	Female	215	63,0
	Male	126	37,0
Graduation	Undergraduate	293	85,9
	Postgraduate	48	14,1
Seniority	5 Years and under	84	24,6
	6-10 Years	82	24,0
	11-15 Years	76	22,3
	16-20 Years	60	17,6
	21 years and above	39	11,4
School Type	Primary	139	40,8
	Secondary	138	40,5
	High School	64	18,8
Total		341	100.0

When Table 1 is examined, 63% of the teachers are female and 37% are male; It is seen that 85% of them are undergraduate and 14% are graduate.

2.3. Data Collection Tools

The Organizational Climate Scale (OCS) was developed by Hoy and Tarter (1997), and Yılmaz and Altınkurt (2013) were adapted to Turkish culture. The school climate scale assesses the behavior of school principals and teachers. The scale consists of 6 sub-dimensions (supportive principal, directive principal, restrictive principal, intimate teacher, collegial teacher, disengaged teacher) and 39 items and is graded as a 4-point Likert type (rarely occurs, sometimes occurs, usually occurs, and very often occurs). In this study, Cronbach Alpha reliability coefficient of the scale was calculated as *a*=.888.

The School Effectiveness Index (SE Index) was developed by Hoy (2014) and adapted to Turkish culture by Yıldırım (2015). The School Activity Index measures the quantity and quality of a school's product / service, efficiency, adaptability and flexibility. The index is an 8-point 6-point Likert-type instrument that provides a subjective assessment of school effectiveness. The higher the score, the higher the effectiveness of the school (Hoy, 2019). In this study, Cronbach Alpha reliability coefficient of the scale was calculated as *a*=.851.

2.4. Analysis of Data

Mean, standard deviation, skewness and kurtosis were calculated before the data were analyzed (Tablo 2).

By examining Table 2, the skewness and kurtosis values were found to be between -1 and +1 and it was decided to perform parametric tests. Correlation analysis was carried out to determine the relationship between the variables. Multiple regression analysis was used to determine the effect of the independent variable (school climate) on the dependent variable (school effectiveness).

Table 2. Arithmetic mean, standard deviation, skewness and kurtosis values of the scales

	Variables	*N*	X	SD	Skewness	Kurtosis
School Climate	Supportive Principal	341	3.037	.764	-.744	-.104
	Directive Principal	341	2.768	.831	.342	-.444
	Restrictive Principal	341	2.282	.679	.188	-.771
	Intimate Teacher	341	2.772	.730	-.179	-.398
	Collegial Teacher	341	2.917	.499	-.105	-.089
	Disengaged Teacher	341	1.885	.754	.967	.379
School Effectiveness		341	4.628	.687	-.451	.172

3. Findings

The results of the correlation analysis to determine whether there is a relationship between teachers' school climate and school effectiveness perceptions are shown in Table 3.

Table 3. The results of correlation analysis between school climate and school effectiveness

	1	2	3	4	5	6	7
1-Supportive Principal	1	.098	-.282**	.305**	.488**	-.021	.481**
2-Directive Principal		1	.422**	.197**	.101	.408**	.204**
3-Restrictive Principal			1	.057	-.138*	.456**	-.004
4-Intimate Teacher				1	.594**	.144**	.366**
5-Collegial Teacher					1	-.125*	.539**
6-Disengaged Teacher						1	.022
7-School Effectiveness							1

*N=341 *p<.05; **p<.01*

When Table 3 is examined, it is seen that there is a significant relationship in a positive direction and mid-level (r=.481) between supportive principal behaviors and school effectiveness. There is also a significant relationship in positive direction and low level (r=.204) between the behaviors of the principal and the school effectiveness and a positive and mid-level (r=.366) significant relationship between the behaviors of the teacher and the school effectiveness. In addition, there is a significant relationship in a positive direction and mid-level (r=.539) between collegial teacher behaviors and school effectiveness. However, there was no significant relationship between school effectiveness and the directive principal and disengaged teacher (p>.05).

The results of the multiple regression analysis conducted in order to determine the predictive level of school effectiveness of supportive and directive principal behaviors from the school climate sub-dimensions, which are determined as independent variables, are presented in Table 4.

Table 4. Multiple regression analysis of school climate supportive and directive principal behaviors predicting school effectiveness

Independent Variables	Dependent Variable	B	Std. Eror.	(β)	t	*p*
Constant	School effectiveness	2,994	,163		18,378	,000
Supportive Principal		,418	,042	,465	9,874	,000
Directive Principal		,131	,039	,159	3,370	,001

$R=.506$; $R^2=.256$; $F=58.231$; $p<.01$

When Table 4 is examined, it is seen that supportive and directive principal behaviors significantly predict school effectiveness ($R=.506$; $R^2=.256$; $F=58.231$; $p<.01$). In other words, supportive and directive principal behaviors explain 25% of the total variance in school effectiveness.

The results of the multiple regression analysis conducted to determine the level of predicting school effectiveness of intimate and collegial teacher behaviors, one of the sub-dimensions of school climate identified as independent variables, are presented in Table 5.

Table 5. Multiple regression analysis of school climate intimate and collegial teacher behaviors predicting school effectiveness

Independent Variables	Dependent Variable	B	Std. Eror.	(β)	t	*p*
Constant	School effectiveness	2,448	,187		13,117	,000
Intimate Teacher		,067	,053	,071	1,250	,212
Collegial Teacher		,684	,078	,497	8,746	,000
$R=.542$; $R^2=.294$; $F=70.277$; $p<.000$						

When Table 5 is examined, while collegial teacher behaviors significantly predict school climate according to the multiple regression model ($p<.05$); intimate teacher behavior does not significantly predict school climate ($p>.01$). Collegial teacher behaviors explain 29% of the total variance in school effectiveness ($R=.542$; $R^2=.294$; $F=70.277$; $p<.000$).

The results of the multiple regression analysis to determine the predictive level of school effectiveness of supportive and directive principal behaviors and collegial teacher behaviors from the school climate sub-dimensions identified as independent variables are presented in Table 6.

Table 6. Regression analysis of school climate supportive and directive principal behaviors and collegial teacher behaviors predicting school effectiveness

Independent Variables	Dependent Variable	B	Std. Eror.	(β)	t	*p*
Constant	School effectiveness	1,992	,197		10,109	,000
Supportive Principal		,249	,045	,277	5,593	,000
Directive Principal		,110	,036	,138	3,175	,002
Collegial Teacher		,536	,068	,390	7.862	,000
$R=.610$; $R^2=.372$; $F=66.407$; $p<.000$						

When Table 6 is examined, it is seen that supportive and directive principal behaviors and collegial teacher behaviors significantly predict school effectiveness ($R = .610$; $R2 = .372$; $F = 66.407$; $p <.01$). In other words, supportive and directive principal behaviors and collegial teacher behaviors explain 37% of the total variance in school effectiveness.

4. Conclusion, Discussion and Suggestions

Studies on identifying, intervening, controlling and improving the characteristics of the school environment, which started in the 1960s, are still ongoing. The main purpose of school effectiveness research is to examine the factors that affect students' success. Effective school research for this purpose has shown that the school is effective and important on students' academic and social outcomes (Ramberg, Laftman, Almquist, & Modin, 2019). In the literature, it is seen that the concepts of performance, success, talent, productivity, improvement or productivity are used instead of the concept of effectiveness (Whetten & Cameron, 1984). In this study, student and teacher performance and success were accepted as indicators of school effectiveness and the aim of this study was to determine the level of school climate influencing/predicting school effectiveness.

In the research, it was concluded that there is a positive and significant relationship between school effectiveness and supportive and directive principal behaviors, and intimate and collegial teacher behaviors. However, there was no significant relationship between school effectiveness and behaviors of restrictive principals and disengaged teacher behaviors. In addition, it is found that supportive and directive principal behaviors and collegial teacher behaviors, which are defined as components of the school climate, significantly predict school effectiveness. In other words, supportive and directive principals' behaviors and collegial teacher behaviors affected school effectiveness at different levels and positively. However, although intimate teacher behaviors are significant and positively associated with the school climate, it was found that it was not significant when it was added to the regression model along with supportive and directive principal behaviors and collegial teacher behaviors.

Teachers believe that the effectiveness of collegial teachers was most influenced by school effectiveness, followed by supportive principals and directive behaviors respectively. In the literature, there are some studies that determine the relationship between school climate and school effectiveness and teacher practices (Durham, Bettencourt, & Connolly, 2014). If the school climate is more positive and the higher the student success or the lower the school climate, the student success is lower (Cornell, Shukla, & Konold, 2016; Doran, 2004; Lee et al., 2017 Şenel, & Buluç, 2016; Taylor, 2008; Wang, & Eccles, 2013; Wuch, 2013). School climate, which is composed of positive and negative principal and teacher characteristics, has been found to be important predictors of school effectiveness (Reynolds et al., 2000; Ontai-Machado, 2016; Owens & Valesky, 2007). In addition, meta-analysis studies showed a positive relationship between school climate and student success; climate has a moderate impact on student achievement (Dulay & Karadağ, 2017; Montenegro, Labor, Öztekin, & Anar, 2016). It is concluded that the findings of this study show similarity and consistency with the findings of studies in the literature. These results were evaluated together; it can be said that when school principals exhibit behaviors that support and directive and teachers work cooperatively among themselves, a positive school climate is formed, and this positive climate strongly influences the effectiveness of the school.

School principals play an important role in the formation of school climate and this has a positive effect on the school's effectiveness (Gülşen, 2014). A positive correlation between supportive leadership, which is one of the descriptive dimensions of school climate, and teacher performance/effectiveness, may be evidence of this statement (Teel, 2003). However, a positive relationship was found between autocratic, democratic (Tatlah, & Iqbal, 2012), servant (Wuch, 2013), strategic (Deeboonmee, & Ariratana, 2014), transformational and transactional leadership styles and effective school characteristics (Zembat, Koçyiğit, Tuğluk, & Doğan, 2010). In addition, it has been revealed that transformational and transactional leadership styles increase organizational trust (Cemaloğlu & Kılınç, 2012) and affect organizational health (Cemaloğlu, 2007), senior management (Tutar & Altınöz, 2010), and it has been found that there is a significant relationship between servant leadership style and positive school climate (Wuch, 2013).

Research in the literature also raises the quality of the relationship between teacher and student, school climate characteristics such as school leadership, teacher collaboration and school ethics (Ramberg, Laftman, Almquist, & Modin, 2019). Again, organizational climate has a positive and significant effect on employee performance (Contartesi, 2010; Tutar & Altınöz, 2010). In schools where teachers' school effectiveness is considered to be high, the educational services provided to students are equally high (Ramberg, Laftman, Almquist, & Modin, 2019). However, it was observed that the motivation and performance of teachers working in a closed climate were low and their attitudes towards education and training were positive (Owens & Valesky, 2007). On the other hand, teachers stated that consistent administration is necessary for a healthy / positive school climate (Gülşen, 2014). As a result, the development of a positive school climate depends primarily on the supportive behaviors of school principals and the collaborative education of teachers. The combination of the forces of these two actors can be regarded as an important factor of school effectiveness.

School-based reform efforts/initiatives often focus on concrete educational elements such as the education curriculum (Austin, O'Malley, & Izu, 2011). However, organizational elements such as school climate are often ignored. In this sense, the goal of educational reforms, school development efforts and efforts to improve school effectiveness should be to create a school climate that students enjoy learning (Austin, O'Malley, & Izu, 2011) and to ensure that all students will learn (Parlar, 2012). School leaders, teachers and student behaviors create a school climate. A leader can promote or prevent a positive climate with leadership behavior. Likewise, when school climate characteristics affect teachers' and students' behaviors, feelings and thoughts (Rapti, 2012), it is unlikely that school effectiveness will be improved and maintained if a positive/healthy/open school climate is not established. Accordingly, school administrators should create a positive school climate by supporting and motivating teachers and other staff as natural leaders of their schools; It should combat organizational behaviors that negatively affect the performance, efficiency and effectiveness of the organization and its employees, such as insecurity, inertia, burnout and cynicism, and as a result improve school effectiveness. In this process, school administrators should support and critically criticize the teachers they work with, be open to teachers' suggestions, praise their achievements, support their cooperation and encourage their professional development.

It is seen in the literature that it is difficult to define the school climate, its characteristics or its dimensions. The main reason for this is that the climate is composed of many interrelated elements. However, this means that improving the school climate can strongly influence other factors. For this reason, it is recommended that school administrators/leaders at school level and teachers at the classroom level start work from the school climate to improve school effectiveness. Because small and positive developments and improvements in the school climate can affect other factors significantly/positively and may have a butterfly effect on school outcomes in general. In summary, school administrators, teachers and other employees can tackle adversities by creating a positive school climate and gain success on school/student outcomes/achievements.

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The Relationship between Transformational Leadership and Organizational Intimacy with Mediating Role of Organizational Empathy

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ABSTRACT

The purpose of this study was to investigate the relationship between transformational leadership and organizational intimacy with mediating role of organizational empathy. This study is an applied and correlation research method based on structural equation modeling. 105 teachers of Saravan city were studied by stratified random sampling method. To collect information, three questionnaires were used: transformational leadership, organizational intimacy and organizational empathy. For data analysis the Pearson correlation coefficient and structural equation modeling were used by SPSS and Lisrel software. Based on results the amount of correlation coefficient of transformational leadership with organizational empathy ($r=0.459$, $p<0.01$), transformational leadership with organizational intimacy ($r=0.580$, $p<0.01$), organizational empathy with organizational intimacy ($r=0.516$, $p<0.01$) was significant. The direct effect of transformational leadership on organizational intimacy ($\beta=0.43$, $t=3.93$), direct effect of transformational leadership on organizational empathy ($\beta=0.48$, $t=4.19$) and direct effect of organizational empathy on organizational intimacy ($\beta=0.36$, $t=3.373$) was significant. The indirect effect of transformational leadership on organizational intimacy was also significant with the mediator role of organizational empathy ($\beta=0.172$). Therefore, it can be concluded that transformational leadership has a positive and significant relationship, directly and indirectly, through the organizational empathy mediation variable with the organizational intimacy.

Keywords:
Transformational Leadership, Organizational Empathy, Organizational Intimacy

1. Introduction

Today's, intimacy among the employees is essential in the organizational environment. Intimacy can solve many problems or prevent their occurrence. For this reason, organizations try to create this intimacy or support its indications. Nowadays intimacy among employees is one of the organizational life requirements. Intimacy is about sharing one's inner desires with others, or it involves empathy and deep understanding with others (Reis & Gable, 2003). Intimate behavior refers to a set of verbal and nonverbal behaviors in face-to-face interactions that leads to an understanding of the physical or psychological closeness between the messengers and involves the communication along with the influence and that leads to "closeness" between individuals (Ellis, Carmon, & Pike, 2016). Regarding organizational intimacy, it should be noted that work intimacy and intimacy in working relationships in the employer-employee interaction is recognized as a tool for improving the work, while intimate relationship is defined as the communication way in the work place. Intimacy in work place can be as a relationship or interaction and communication through sharing working demands with other employees. As employees gain an in-depth understanding and sensitivity to work-related problems.

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Because of this, intimacy in the organization is a flexible process that occurs over the time (Bashir & Nasir, 2013).

Reduced occupational stress and promotion of organizational health level, reduced crimes, and occupational disorders, reduced cost of coordination and communication, use of mental and physical power for progress of organizational goals, attempt for improving performance regardless of any organizational and individual supervision are outcomes of organizational intimacy. Overall, the space rich of intimacy and trust in the organization creates vitality and a spirit of hope at the organization level and in the social and human system of the organization, and it can improve individual, group, and organizational performance (Shariati, Mohammadi Moghaddam, & Bagherian, 2017). Intimacy behaviors such as teacher teaching style and, contrary to other unchanging teacher characteristics, such as intelligence and personality, are flexible and changeable, and if used by teachers it would be accompanied by optimal performance in classroom management, increase in learners' learning, attitude, self-esteem, and self-concept (Velez & Cano, 2008). Schools can be considered as human beings, with life and identity and culture; attraction, repulsion, intimacy, empathy and aversion, health and illness, vitality and depression, etc. All are manifestations of this school identity and character. Above all, they can make such organizational intimacy as sustainable and stable, and it is guidelines of management system and ethical and logical approaches of the school leadership system. Undoubtedly, role of transformational leaders cannot be denied in construction of this identity. In reviewing the research background Theocharous and Philaretou (2011) found that intimacy in the inter-organizational setting should be existed to help the organization achieve organizational goals Naghi Aghdasi, Samari, & Bageri (2008) found that an intimate and supportive organizational climate has a positive impact on organizational performance. Kark (2012) found that workplace intimacy has a positive impact on in leader–follower relationships. Viviana (2009) found that intimacy plays an important role in the organizational performance and optimizing the financials of companies in the business relationships and organization. Johansen (2015) found that there are three types of emotional, communicative, and perceptual intimacy in the educational environment, which are related to teachers' organizational commitment. Osei (2017) found the higher the level of intimacy in marketing, the greater the performance and commitment of marketers. Robert and Bernard (1973) found that organizational intimacy affects job performance and individual satisfaction.

Transformational leadership is one of the newest leadership approaches, which was introduced by Burns (1978) and Bass (1985). Previous leadership theories all were focused on transactional leadership. Transnational leadership is a transactional relationship between the leader and the subordinate, in which the subordinate receives the rewards associated with the primary needs in response to meeting the demands of the leader and manager. Transactional leaders specify what subordinates should do to achieve the organization's goals. The leader pays money or designated reward for the performance. They have smart eyes for opportunism and have good hands for transaction, persuasion, and counteract (Ramzaninezhad, Hematinezhad, Andam, Zare, & Sadeghpoor, 2011). Transformational leaders convey inspiration, respect, honesty, loyalty, and a sense of shared responsibility with their intelligent behaviors modeled on their employees. Undoubtedly, these feelings cause strengthening autonomy and job identity and responsibility among the individuals (Elkins & Keller, 2003). Transformational leader is applied on the individual who empowers the followers, motivates them for performance beyond their expectations, and encourages them to follow collective goals rather than transitional personal ones (Kark, 2011). Transformational leadership style expresses that how it is possible to encourage follows to doe works beyond the expectations through stimulating high-level needs (Boglar, Caspi, & Roccas, 2013). The main difference between transactional and transformational leadership is that transformational leader inspires a collaborative vision, empowers followers and appreciates their progress transforming the followers into leaders and defines new paths for the organization. Nevertheless, the transactional leader is only concerned with maintaining the status quo (Ramzaninezhad, 2011).

Researchers introduced four main factors of inspirational motivation, idealized influence, individual consideration, and intellectual stimulation as the major behavioral components of transformational leadership. Inspirational motivation means presenting a fascinating vision of the future, using emotional reasoning, and displaying optimism and passion; idealized influence includes behaviors such as sacrifice for the benefit of the group, setting a personal pattern, and expressing very high ethical standards; individual consideration means providing support, clear instruction, and encouragement for followers, and intellectual stimulation means the behaviors that increase followers' awareness of challenges and problems from a new perspective (Sun, Zhang, & Xiong, 2012). Transformational leadership has received much praise for its positive aspects, including its positive relationship with employee satisfaction, performance, motivation, and commitment (Ivey & Kline, 2008). Transformational leaders are those who are able to draw novel necessary paths for the new organizations. This type of leaders provides the basis and foundation of organizational long-term changes, they move the organizations from the present to the future, identify environmental needs, and facilitate transformation (Dargahi, Rajabnezhad, & Reshadatjo, 2016). Transformational leaders attempt hard for increasing trust, morality, working spirit among the leaders and directing organization to the optimal status, and cause improvement of organizational performance by inspiring their followers and developing their abilities. Thus, it is significant to study this leadership style. In reviewing the research background Gumusluoglu & Ilsev (2009) reported that transformational leadership can positively influence organizational innovation. Aragon-Correa, Garcia, and Cordon (2007) found that transformational leadership has a positive effect on organizational learning and innovation. Limsila and Ogunlana (2008) found that transformational leadership has a relationship with organizational excellence. Shariati et al. (2017) found that there is positive relationship between transformational leadership and organizational intimacy. Kellett, Humphre, & Sleeth (2002) reported that transformational leadership style can influence organizational empathy. Ghasemiram, Amini Sabegh, and Ghorban Hoseyni (2016) found that organizational empathy is regarded as one of the consequences of a transformational leadership style.

Intimate relationships require empathy among individuals. Empathy is defined as the ability to understand other’s feelings in such a way that one can identify with him (Brunel, 1989). Empathy includes a range of social visions to the ability for understanding emotional and cognitive states and experience of similar emotions with others (Eisenberg & Miller, 1987). Empathy is a necessary element for successful interpersonal performance, and it is the one’s emotional reaction to others’ emotional reactions (Ali, Amorim, & Chamorro-Premuzic, 2009). Empathy is one of the principles of efficient communication and an important feature that causes development of human relationships. Organizational empathy is a powerful force for achieving the goals and programs of the organization and the most efficient reason for promoting personal growth and human relationships and communication with others. In an organization with the power of empathy, many complex nodes can be opened and paved the way for achieving the organizational goals (Hunter, Figueredo, Becker, & Malamuth, 2007). Empathy is the fundamental capacity of individuals to form relationships, support collaborative activities, and group cohesion. This ability plays an essential role in social life, and it is the driving force behind social behaviors and behaviors that lead to group cohesion (Rieff, Ketelaar, & Wiefferink, 2010). It is essential to recognize the thoughts and feelings of others that include empathy at all levels of managers with personal, group, and organizational awareness. Empathy means inclusion of employee emotions in the considerations, and then adopting smart decisions in which those emotions are considered and expressed (Sousa, McDonald, Rushby, Li, Dimoska, & James, 2010). In reviewing the research background Bjorkqvist (2007) found that there is no significant relationship between empathy and aggression. Gery, Miljkovitch, Berthoz, & Soussignan (2009) found that there is a significant difference in empathy between the two genders. Kusche and Greenberg (2011) found that training empathy skills is effective in interpersonal and emotional self-regulation problems. Therefore, training empathy skills increases sociability, intimacy, and responsibility. Beyrami, Jafari, and Bahrami (2014) found that there is a relationship between empathy and happiness. Further, having a high empathy leads to high emotional and cognitive interpersonal relationships, which is effective in creating positive and happy emotions. Eisenberg, Spinrad, and Sadovsky (2005) found that empathy plays a vital role in ethical reasoning, arousing pro-social behavior, and aggression deterrence.

Lack of intimacy and empathy between teachers and administrators is considered as one of the problems in the schools. There is a significant gap between teachers and managers and their demands. Due to this gap, some administrative problems are raised in the decisions because teachers do not usually show hardiness in its implementation. Conversely, the managers lack needed intimacy and empathy with the teachers and do not involve them in the decision-making process, leading to the creation of a distrusting environment in the school. Lack of intimacy and empathy results in emerging behaviors such as rumor mongering, conflict, politicizing and slumber. At such school, talking about issues like self-management and self-control, cooperation and mutual understanding is useless, and most efforts to increase effectiveness do not produce the desired results. In addition, fulfilling the goals of the school requires cooperating among its members and the most important way is to facilitate cooperation, and increase trust, intimacy, and mutual empathy among teachers school administrators. Organizational empathy and intimacy in schools can be influenced by the school's leadership style. Considering the studies in the recent years in the world, and significance of transformational leadership as the successful management in educational organizations and investigation of organizational intimacy and empathy as the factors affecting spirit and performance of teachers, rare numbers of studies are available in this regard. To this end, current research aims at answering this question that if there is significant relationship between transformational leadership and organizational intimacy with mediator role of organizational empathy?

Research hypotheses

1. Transformational leadership has a positive and significant effect on organizational intimacy.
2. Transformational leadership has a positive and significant effect on organizational empathy.
3. Organizational empathy has a positive and significant effect on organizational intimacy.
4. Transformational leadership has a positive and significant effect on organizational intimacy through the mediation of organizational empathy.

2. Method

2.1. Design and Setting

The current study is experimental in terms of the objective and correlational based on structural equation model in terms of methodology. The present study aimed to investigate the relationship between transformational leadership as the independent variable and organizational intimacy as the dependent variable with the mediating role of the organizational empathy. The study model is shown in Figure 1.

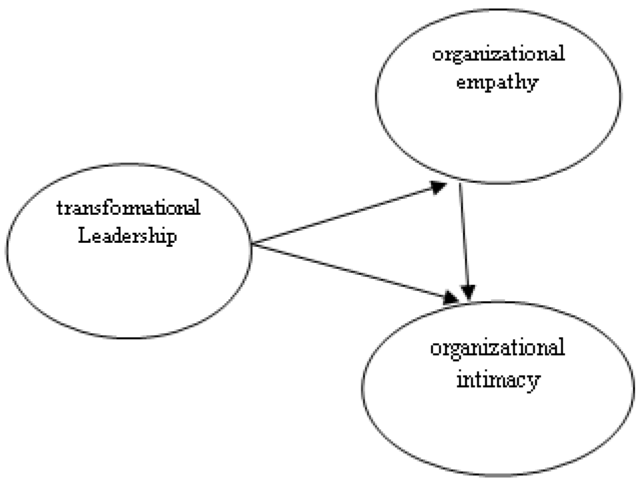

Figure 1. Hypothesis Model

2.2. Participants

The statistical population included 144 teachers (76 males and 68 females) in first high school in Saravan city in the educational year 2018-2019. Given that the individuals' gender was not equal in number (52.78% male and 47.22% female), 105 teachers, consisting of 55 males and 50 females, were randomly selected in proportion to the gender and Cochran's sampling formula. The inclusion criterion was having at least two years of teaching experience in school. Therefore, the teachers with less than two years of teaching experience were excluded. The researcher personally referred to the schools and selected the appropriate sample based on the inclusion criterion. Before distributing the questionnaires, the teachers were informed about the subject and purpose of the study and their verbal consent was obtained. The teachers participated in the study voluntarily, and they were assured of the confidentiality of the data. The teachers completed the questionnaire for 20 minutes.

Table 1 provides the demographic information of the participants.

Table 1. Demographic information of the participants

Variable		Frequency (percent)	Variable		Frequency (percent)
Gender	Male	55 (52.78%)	Educational Degree	Bachelor	71 (67.62%)
	Female	50 (47.22%)			
Marital Status	Married	85 (81%)		Master	34 (32.38%)
	Unmarried	20 (19%)			
Employment Status	Permanent	93 (88.57%)	Work Experience (years)	<11	38 (36.17%)
	Contractual	12 (11.43%)		11-20	53 (50.47%)
				>20	14 (13.33%)

2.3. Instrument

Three questionnaires including transformational leadership, organizational intimacy, and organizational empathy were employed for collecting the data.

A) Transformational leadership Questionnaire

The transformational leadership questionnaire was designed by Bass and Avolio in 2000. The questionnaire evaluates transformational leadership using 20 items and 4 dimensions including inspirational motivation (8 items), idealized influence (4 items), individual consideration (4 items) and intellectual stimulation (4 items). It was organized on 5-point Likert scale from "quite disagree" to "quite agree", being represented by scores 1 and 5. The minimum and maximum scores in the questionnaire were 20 and 100, respectively. The closer to 100 score it is a sign of more use of transformational leadership style. The content validity of the questionnaire was approved by the experts. Cronbach's alpha test was used to determine the reliability of the questionnaire that the coefficient was 0.92.

B) Organizational Intimacy Questionnaire

The organizational intimacy questionnaire was designed by Walker and Thompson in 1983. The questionnaire contained 17 items and 3 micro-scales of emotional closeness (5 items), self-sacrifice (7 items) and satisfaction (5 items). It was organized on the 7-pint Likert scale from "never" to "quite always", being represented by scores 1 and 7. The minimum and maximum scores of the questionnaire were 17 and 119, respectively. The closer to 119 score it is a sign of more organizational intimacy. The content validity of the questionnaire was approved by the experts. Cronbach's alpha test was used to determine the reliability of the questionnaire that the coefficient was 0.957.

C) Organizational Empathy Questionnaire

The organizational empathy questionnaire was designed by Davis in 1983. The questionnaire consisted of 21 items and 5 dimensions of emotional concerns (7 items), viewpoints (7 items) and personal disorder (7 items). It was organized on the 5-point Likert scale from "quite disagree" to "quite agree", being represented by scores 1 and 5. The minimum and maximum scores were 21 and 105, respectively. The closer to 105 a sign of more organizational empathy. The content validity of the questionnaire was approved by the experts. Cronbach's alpha test was used to determine the reliability of the questionnaire that the coefficient was 0.896.

2.4. Data analysis technique

Descriptive statistics, including frequency, percentage, mean, standard deviation, skewness, and kurtosis, and inferential statistics, involving Pearson correlation coefficient and structural equation model, employed to analyze the data in SPSS21 and Lisrel software.

3. Findings

Structural equation modeling was used to investigate the hypotheses of the study. Table 2 represents descriptive indexes of variables including mean, standard deviation, and skewness and kurtosis.

Table 2. Descriptive statistics for the study variables

Variable	Minimum	Maximum	Mean	SD	Skewness	Kurtosis
Transformational leadership	44	100	82.085	12.991	-0.742	0.230
Organizational intimacy	26	89	73.142	13.308	-1.210	1.493
Organizational empathy	53	105	76.647	10.988	0.481	0.164

In causal modeling, the distribution of variables should be normal. Thus, the absolute value of the skewness and kurtosis of the variables should not be greater than 2. As shown in Table 2, the absolute value of the skewness and kurtosis of all variables is in line with the desired standard. Thus, the assumption of the causal modeling means the normality of variable. In addition, before designing structural equation modeling, the relationship between variables of the study was investigated by Pearson correlation coefficient test. Further, a significant relationship was observed between transformational leadership with organizational empathy and organizational intimacy (r=0.459 and 0.580, respectively), while Organizational empathy was positively related to organizational intimacy (r=0.516). Structural equation model was used for evaluating the relationship between the variables of the study. Model fit was assessed before investigating the assumptions of the study. The size of model fit was utilized in determining the relationship between overt and covert variables. According to researchers, fit indexes include Goodness-of-Fit Index (*GFT*), comparative Fit Index (*CFI*), Root Mean Square Error of Approximation (*RMSEA*), and Root Mean Residual (RMR). Regarding the last three indexes, the appropriate amounts of fit are less than 0/8, 0/08, and 0/05 respectively. As shown in Table 3, the fit results are appropriate.

Table 3. Fit indexes of the theoretical model of the study

Index	Amount achieved in the model
Goodness of Fit (*GFI*)	0.91
Root Mean Residual (*RMR*)	0.061
comparative Fit Index (*CFI*)	0.98
Root Mean Square Error of Approximation (*RMSEA*)	0.077

To analyze the data, the theoretical model for each assumption should be processed to determine the amount the collected data can support the theoretical model. To answer this question, the quantitative indexes of model fit (*CFI, GFI, SRMR*…) were used. If the general indexes are acceptable or in other words, the theoretical model is approved, and then in-model relationships are assessed. These mutual relationships are the regression coefficients related to assumption and factor loads of each item. Figure 2 displays all relationships of covert variables and factor loadings of each item.

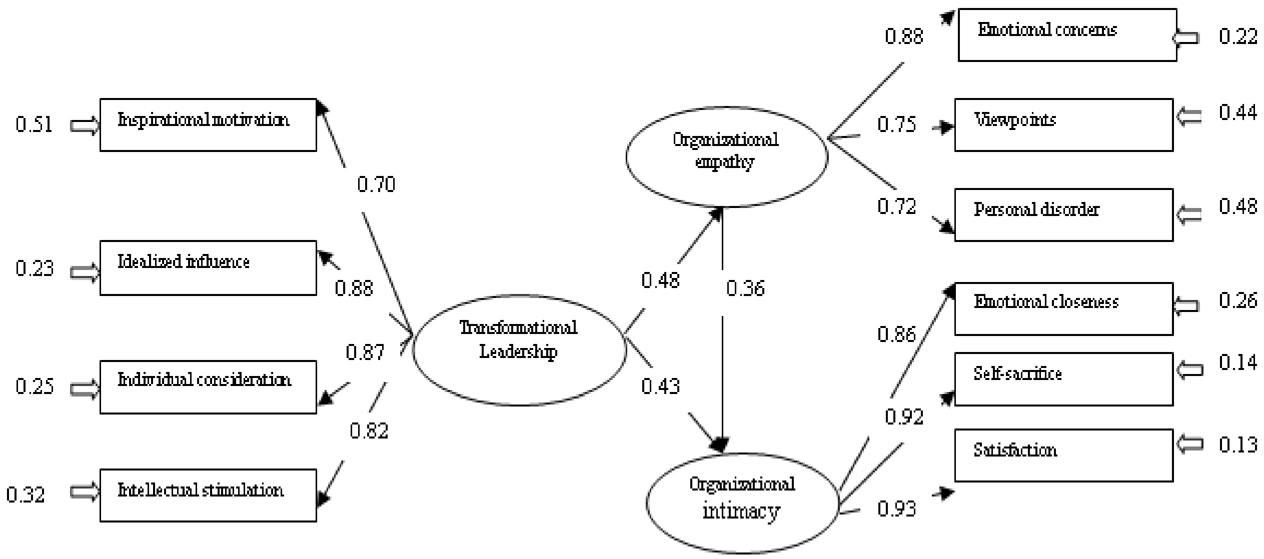

Figure 2. Fitted model of the study (standard coefficients)

According to the model (Figure 2), the research hypotheses can be analyzed as follows:

Table 4. Path coefficients for the study of research hypotheses

Hypotheses	β	T	Conclusion
Transformational leadership ⟶ Organizational intimacy	0.43	3.93	Accept
Transformational leadership ⟶ Organizational empathy	0.48	4.19	Accept
Organizational empathy ⟶ Organizational intimacy	0.36	3.37	Accept
Transformational leadership ⟶ Organizational empathy ⟶ Organizational intimacy	0.172		Accept

4. Conclusion and Discussion

The present study aimed to investigate the relationship between transformational leadership and organizational intimacy with mediating role of organizational empathy. The finding indicated that transformational leadership has a positive and significant effect on organizational intimacy. It should be stated that transformational leaders expand the interests of employees under their command, accept and focus group goals with focus and awareness, motivate employees, think beyond their own personal interests, and provide the ground for their employees in a way that all of them are able to easily express their goals (Flores & Ekstedt, 2016), result of which is organizational intimacy. Shariati et al. (2017) also found that there is a positive significant relationship between transformational leadership and organizational intimacy.

The second finding showed that transformational leadership has a positive and significant effect on organizational empathy. It should be stated that the transformational leader places himself in the position of his followers. He does this by empathy. Empathy is a conscious reaction that causes transformational leaders perceive the weaknesses and problems of the followers and attempt to eliminate these problems. Transformational leaders accept weaknesses of the follows and always seek for finding solutions for them. Transformational leaders direct spirit of their followers toward the excellence through empathy. In this way, they raise spirit of their team members and their tendency for cooperation (Bass & Avolio, 1993). The relationship between transformational leadership and organizational empathy has been proved in the studies of Kellett et al., (2002), Wan Afezah (2017).

The third finding showed that organizational intimacy has a positive and significant effect on organizational empathy. It should be stated that empathy is one of the efficient communication principles and an important feature that shapes foundation and basis of human relationship development. Empathy creates such an atmosphere in the organization where the employees can identify themselves as the managers and perceive them, and the managers can get through into the mind and spirit of employees and see the issues and affairs form their point of view, they can listen to each other's recommendations carefully without any prejudice, and pay attention to the issues that are important for each party (Thompson, 2001), and thus empathy can improve organizational intimacy. Ghasemiram et al (2016) also found that there is a positive significant relationship between organizational intimacy and organizational empathy.

The other finding indicates that transformational leadership has a positive and significant effect on organizational intimacy with mediator role of organizational empathy. Transformational leader promotes organizational intimacy through effective participation in employee group activities, listening to and reviewing their suggestions, resolving intergroup conflicts, non-discrimination among employees, and encouraging their positive activities in a timely manner. Organizational empathy leads to organizational intimacy in the organization in the way that for creating empathy atmosphere, both managers and employees need to be honest and sincere and away from any display of selfishness, and to have a true understanding of each other, and have a timely and appropriate response to it. This finding is in agreement with the findings of Shariati et al. (2017), Kellett et al., (2002), Wan Afezah (2017), Ghasemiram et al. (2016).

In summary, transformational leadership is positively and significantly associated with organizational intimacy both directly and indirectly with the mediating role of the organizational empathy. Thus, when the school principals have high self-confidence, attractive, show their competence (using idealized influence), ask the teachers to challenge the issues, and use their analysis and creativity power, remind them that they would be punished if they make mistake (intellectual stimulation), draw a shared vision of the future, have logical and achievable expectations form the teachers, so that they can make step in line with the educational programs (inspired motivation), develop supportive atmosphere in the school, carefully listen to the needs of the teachers, act as a consultant and trainer, pay attention to professional and personal progress of their teachers (individualized consideration),they can develop organizational empathy and organizational intimacy among the teachers. One of the limitations of the present study was restriction of scope of research to a specific part of Iran. Obviously, the opinions of teachers in Saravan city may not be a complete representative of the views of staff across the country, and this issue confines the spatial generalization of research. To increase the power of generalizing the results, similar research should be conducted in other cities and on other teachers.

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Examination of the Relationship among Adolescents' Subjective Well-Being, Parenting Styles with Smartphone in terms of different variables

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ABSTRACT

Aim of this research is to examine the relationship between adolescents' subjective well-being and parenting style and smartphone addiction by several variables. The research population was composed of high school students studying in Kocaeli province in the academic year of 2017-2018. The sample was composed of 671 adolescents attending 6 different high schools which were randomly chosen out of this population. 313 (46.6%) of the participants are female, 358 (53.4%) of them are male. Relational survey model was used in the research. Data were collected using Personal Information Form, Smartphone Addiction Scale, Adolescent Subjective Well-Being Scale and Parenting Style Inventory. It was found in the research that participants' smartphone addiction levels did not differ statistically and significantly by gender, whether parents were together or divorced, and parental income. A negative significant relationship was found between academic achievement and smartphone addiction. According to the analysis results, as the smartphone usage duration extended, smartphone addiction level increased. The results of the analysis conducted to determine whether smartphone addiction was predicted by adolescents' subjective well-beings and the parenting styles (acceptance/involvement, psychological autonomy and strictness/supervision) showed that all variables other than parental acceptance were negative significant predictors of smartphone addiction. It was concluded that subjective well-being was the most important predictor of smartphone addiction.

Keywords:
Smartphone addiction, parenting style, adolescent subjective well-being

1. Introduction

A rapid change has been observed in the communication technology in parallel with the developments in today's technology. Phones are some of the important communication technologies. According to Tekin, Güneş and Çolak (2014), mobile phones are the leading devices which provide the highest benefit among tools of communication. (Kayabaş, 2013) Having been used only to communicate in the beginning, smartphones have been made more equipped, and it is possible to say that they have been finding an important spot in our lives with social network applications such as Instagram, WhatsApp, Twitter, Facebook, etc. and features such as photography, video call, video recording, navigation, shopping and receiving the news and have brought another dimension which facilitates users' lives.

One of the most important benefits of smartphones for users is that they provide a technology enabling users to access information and communicate easily when used properly (Ayas & Horzum, 2013). One can argue that smartphones have negative effects beside their benefits which facilitate people's lives. Excessive and unconscious use of smartphone lead to negative consequences among individuals socially, psychologically and physiologically (Choi, Lee, & Ha, 2012). According to Wood & Neal (2007), these devices which individuals need to carry with them all the time to socialize or communicate with others will become a habit after a while, and this habit will turn into an addiction thereafter. Habits are activities always existing in

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daily life, do not pose any problem and enrich our lives. However, if these habits make us unsuccessful and harm us cognitively, socially and psychologically, it generally means that they have turned into addiction (Öztürk, 1989).

It is possible to define addiction as the sum of abnormal behaviors which affect individual's physical, mental and social functionality and everyday life activities. There are several definitions of addiction in the literature. According to Tamar Gürol (2012), addiction is a brain disorder occurring at the end of a certain process and harming the individual with several environmental and biological factors in play in its development and progress; it affects both brain and behaviors and is characterized by the individual seeking for and using substances although it results in many negative situations and accompanied by continuous and repetitive malignant behavior and attitude. Egger and Rauterberg (1996) argue that addiction refers to not being able to resist the urge to perform a given behavior over and over again or failing to control the behavior of using a substance all the time. Addiction stems from relationships and interactions among many factors involving individual's own nature such as psychological construct, social circle and activities, and genetic susceptibility (Griffiths, 2003). According to Kim and Kim (2002), addiction does not necessarily mean the substance addiction based on smoking, alcohol, etc.; one should also mention behavior-based addictions regardless of intake of any chemical when it comes to addiction.

Addictions resulting from the uncontrolled exhibition of a behavior without any chemical intake are recognized as behavioral addictions (Griffiths, 2005). According to Köknel (1998), behavioral addiction is described as how individuals are affected physically, spiritually, mentally and socially in a negative way as a result of uncontrolled, therefore, abnormal exhibition of a given behavior, which deteriorates their order in everyday tasks and functions and cause them to find it hard to adapt to the social structure. It has been recently observed that Internet-based activities such as gaming or chatting exhibit addiction on a similar level to drug and substance abuse. As Internet has become more available via smartphones today, the relationship between smartphone and addiction is now one of the important issues to be addressed (Bekir & Yıldırım, 2018; Kwon, Kim, Cho, & Yang, 2013; Padır, 2016). Şar, Ayas, & Horzum (2015) state that excessive and unconscious usage of smartphone may cause behavioral addiction as well.

Smartphone addiction is a type of addiction which occurs based on behaviors regardless of chemical intake and causes disturbance when not used. It has different denominations in the literature such as "problematic mobile phone usage", "overuse of mobile phone", and "smartphone addiction" (Süler, 2016). According to Lin, Chang, Lee, Tseng, Kuo, & Chen (2014), smartphone addiction is regarded as a form of technological addiction. Technological addictions are covered by non-chemical, behavioral addictions and based on human-machine interaction. Technological addictions may be in the form of active addiction such as playing videogames as well as passive addiction such as watching television, and the related behavior has addiction-causing, stimulating and awarding properties in general (Arısoy, 2009; Bekir, 2018).

Smartphone addiction is of characteristics such as deterioration in users' social relations, urge to use smartphone and loss of control, and tolerance and defined by the degree of affecting everyday life negatively (Kwon, Kim, Cho and Yang 2013). Today, it is seen that smartphone addiction is more common among 20-year-old and younger individuals (Kahyaoğlu Sut, Kurt, Uzal, & Özdilek, 2016). It is possible to argue that it has several negative impacts on them. Due to excessive and unconscious usage of smartphones, many students, especially going through adolescence, have problems with their teachers at school and parents at home (Lee and Kim, 2013). It is stated in the literature that young smartphone addicts are affected academically in a negative manner (Chan, Walker & Gleaves, 2015; Lepp, Barkley & Karpinski, 2014; Judd, 2014; Junco & Cotten, 2011) and smartphone addictions cause individuals to become persons who live their lives with a non-real, virtual identity, are abstracted from the society, have difficulty in communicating face-to-face and try to express themselves with their own virtual identity (Polat, 2017). Megative effects of smartphone addiction might not be limited to these. It can be argued according to the literature that it affects youngsters' verbal communication negatively (Kahyaoğlu Sut, Kurt, Uzal, & Özdilek, 2016), it has a negative impact on youngsters' psychology as it causes insomnia, exhaustion and stress (Gross,2014), it causes attention deficit and hyperactive behaviors (Augner ,& Hacker, 2012; Şata, Çelik, Ertürk ,& Taş, 2016) and use of smartphones from early ages may cause health problems such as Alzheimer's and Parkinson's (Kalkan, 2002). Smartphone addiction brings about several problems in mental health, social life and personal relationships (Choi, Lee, & Ha, 2012) and has an impact on the development of many problematic behaviors such as anger, desperate efforts for connection, excessive time spent on smartphones, psychological disorders and setbacks in everyday tasks (Ko, Le ,& Kim, 2012). It is also possible to say in the light of these considerations that smartphone addiction levels increase as individuals' levels of happiness decrease.

Happiness is addressed along with the concept of subjective well-being in psychology (Eryılmaz, 2010). Subjective well-being means that individuals evaluate events in his/her life and make a judgment accordingly. Subjective well-being is comprised of two main components which are affective and cognitive. Satisfaction with life constitutes the cognitive aspect of subjective well-being. The affective aspect consists of two components which are positive affect and negative affect (Myers & Deiner, 1995). There are many factors affecting subjective well-being as stated in the literature. Diener and Fujita (1995) argue that one of the important factors is individual's resources. These resources are material means, social and personal qualities that can be used to achieve personal goals. According to Park (2004), there are four important factors that have an impact on adolescent subjective well-being. These include having parents who show supportive approach, performing challenging activities or overcoming difficult tasks, life events that have a positive effect on individual and high-quality interactions with important persons. Variables effective on adolescent subjective well-being include family factor and parenting style.

Parenting style is defined as the body of attitudes, expectations and behaviors toward the child in general (Darling & Steinberg, 1993). Parents and child relationship is important in adolescence as in all developmental periods. Adolescents who can establish healthy relationships with their parents also do so with their circles and maintain their lives as individuals who do not have adaptational problems with others. Hence, parenting styles is of great importance to adolescents (Hines, 1997). In this sense, adolescent subjective well-being along with parenting styles and familial relationship are important factors affecting the satisfaction with life (Joronen & Kurki, 2005).

As is seen, problem of addiction which occurs due to unconscious usage of smartphones affect adolescents' quality of life negatively. It is therefore very important to take precautions for youngsters and society before smartphone usage becomes an addiction. Thus, it is possible to argue that identifying the variables which affect smartphone addiction will provide significant contributions to the development of suggestions to solve this problem. Accordingly, in this study, ıt was aimed to examine the relationship between adolescents' subjective well-being and pareting style with smartphone addiction.

2. Method

This is a quantitative research study aiming to identify the relationship between adolescents' subjective well-being and parenting style and smartphone addiction by several variables. The dependent variable of the research is smartphone addiction whereas its independent variables are adolescents' subjective well-being levels and parenting styles. The research was conducted in the relational survey model through which the relationship between adolescents' subjective well-being and parenting style and smartphone addiction was investigated by several variables. Relational survey is a research model which aims to investigate whether there is a relationship between two or more variables and the level of this relationship if there is one, does not provide a causation but some hints to achieve useful results to predict the other variable given that the situation is known in one of them (Karasar, 2010).

2.1. Participants

The research population was composed of high school students studying in Kocaeli province in the academic year of 2017-2018. The sample was composed of 671 adolescents attending 6 different high schools which were randomly chosen out of this population. 313 (46.6%) of the participants are female, 358 (53.4%) of them are male.

2.2. Instruments

Personal Information Form: The personal information form prepared by the researcher to apply to the study group tried to find out about the demographics of the students. This form asked about information such as students' gender, grade level, perceived academic achievement average, perceived parental income, whether parents were together or divorced, daily duration of smartphone usage and purpose of smartphone usage. There are 7 questions in total for the study group in the personal information form.

Smartphone Addiction Scale: The original scale was developed by Şar, Ayas and Horzum (2015). The scale was finalized upon a pilot application and expert opinions. Next, the factor analysis, construct validity and reliability studies were performed. The scale was performed on 234 high school students to conduct the factor analysis in the first application for finalizing the scale. In the second application, the scale was performed on 228 different high school students for conducting the confirmatory factor analysis. Convergent and discriminant validity was applied to measure scale's construct validity. According to the analyses, it is a valid and reliable scale. The scale was found to have a 4-factor and 30-item factor construct. The lowest factor variance of the items are .397. The first factor has 17 items, and factor loading values vary between 0.557 and 0.813. The eigenvalue of the first factor is 14.40 and its explained variance is 47.98%. This factor is called "Relieving Oneself". The second part of the scale is the 5-item "Physical Impairment and Negligence of Daily Activities" factor. The eigenvalue of the second factor is 2.02 and its explained variance is 6.72%. The loading values of five items in the second factor vary between 0.561 and 0.765. The third factor consists of 4 items; its eigenvalue value is 1.39 and explained variance is 4.64%. This factor is called "Abstraction from face-to-face communication". The factor loading values of five items in three factors are between 0.620 and 0.774. The fourth and last factor of the scale is also consists of 4 items; its eigenvalue value is 1.12 and explained variance is 3.72%. This factor is called "Unrestrainable Use". The loading values of five items in the fourth factor vary between 0.444 and 0.768. The total eigenvalue of the Smartphone Addiction Scale is 18.93, and its total explained variance is 63.06%. The ratio of factor loading loads to factors from 30 items is between 0.444-0.813. These results show that the scale sufficiently explains the quality measured by variance. Consequently, the scale was obtained in a 30-items and 4-factor construct.

Adolescent Subjective Well-Being Scale: Adolescent Subjective Well-being Scale was developed by Eryılmaz (2009a). The scale consists of items that contain satisfaction levels and positive affect in various areas of life. It is a 4-point Likert, 15-item scale. Adolescent Subjective Well-Being Scale consists of four factors: satisfaction in familial relations, satisfaction with life, positive feelings and satisfaction in relationships with significant others. The explained variance of these four factors is 61.64. The reliability of the scale was determined by internal consistency and item-total correlation methods. The Cronbach's Alpha coefficients were calculated to be .86 for the whole scale, .81 for satisfaction in familial relations, .81 for satisfaction with life, .73 for satisfaction in relationships with significant others, and .66 for positive feelings. The Spearman Brown value is .83. Convergent validity of the scale was evaluated with the Satisfaction with Life Scale in this study group. The analyses concluded that the scale has a convergent validity of 0.47. The explained variance of the scale is .61.641. The scale was administered to the same group at two-week intervals. Thus, the reliability of the scale was calculated using the test-retest method, and the stability factor was found to be .83.

Parenting Style Inventory: Developed by Lamborn, Mounts, Steinberg and Dornbusch (1991), Parenting Style Inventory-PSI was adapted to Turkish by Yılmaz (2000a). Lamborn et al. (1991) developed the Parenting Style Inventory on the basis of factors suggested in the studies performed by Baumrind (1971), Maccoby and Martin (1983) and using the factors addressed by Steinberg et al. (1989) in their study. The inventory scores were subjected to a factor analysis resulting in three factors which are psychological autonomy, strictness/supervision and acceptance/involvement. The inventory is composed of 26 items. Test-retest reliability was examined for the reliability study of the Parenting Style Inventory. For the high school students who were also the sample of our research, the test-retest reliability coefficients and Cronbach's Alpha internal consistency coefficients were found to be .82 and .70 for acceptance/involvement, .76 and .66 for strictness/supervision, and .76 and .66 for psychological autonomy, respectively. In the validity study of the inventory, it was examined whether there were any significant differences between the dimensions of democratization in terms of academic achievement scores as it is done in the relevant studies so that it could be considered an indirect evidence for criterion-related validity. This result is an indirect evidence for the criterion-related validity of the inventory (Yılmaz, 2000).

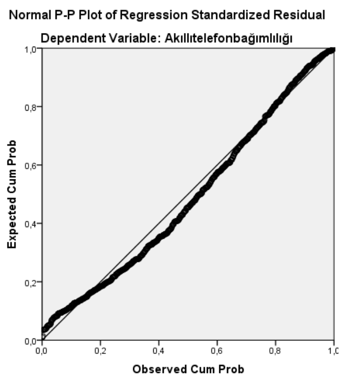
3. Findings

The study data were collected from 671 adolescents from various high schools in Kocaeli. 313 *(46.6%)* of the participants are female, 358 *(53.4%)* of them are male. 34 *(5.1%)*, 601 *(89.6%)* and 35 *(5.2%)* of the participants stated that the income levels of their families were low, medium and high, respectively, and one participant did not answer this question. The mean score of the participants from the Smartphone Addiction Scale was 64.58. Regarding students' smartphone usage frequency, it was observed that 108 *(16.1%)* of the participants were using their smartphones for less than one hour per day, 339 *(50.5%)* used for 1-3 hours while 224 *(34.4%)* used their smartphones for more than three hours. As for the purposes of smartphone usage, 359 of the participants (53.5%) were using smartphone for social media, 109 of them (16.2%) for messaging, 85 of them (12.7%) for playing games, 47 of them *(7%)* for speaking and 67 of them *(10%)* for other purposes; 4 of the participants did not answer this question.

Before the data were analyzed, it was checked whether the assumptions required for multiple regression were assured. First, it was checked whether the sample size required for the analysis was achieved. To this end, the criterion ($N \geq 50 + 8m$) proposed by Tabachnick and Fidell (2013) was taken as the basis. Accordingly, there are 4 independent variables in this study. Given the proposed criterion, it was determined that the number of 671 students participating in this study exceeded the recommended sampling adequacy (671≥ 50 + 8x3 = 74) in order to perform regression and it was convenient to perform regression analysis.

The assumption of normality of the standardized residuals was checked by Histogram and PP plot. As shown in Figures 1 and 2 below, it was determined that PP plots followed approximately 45-degree line and histogram showed normal distribution.

Figure 1 Residual normality Figure 2 Residual normality P-P Plot



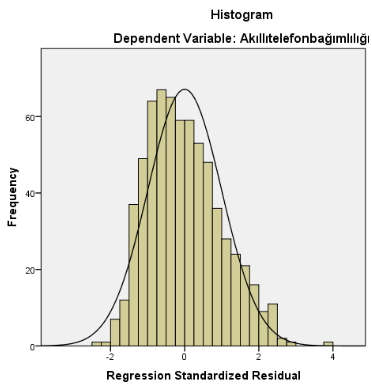
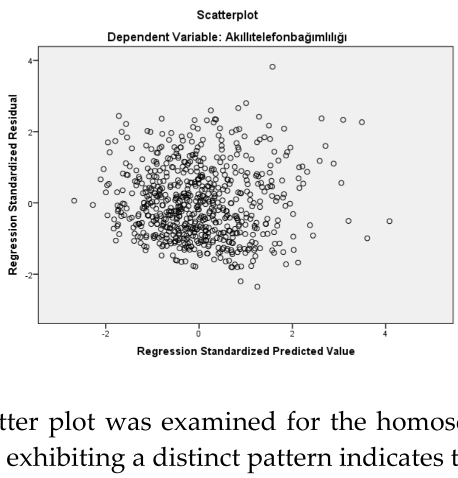


Figure 3: Homoscedasticity



The scatter plot was examined for the homoscedasticity assumption of the regression analysis. The scatter plot not exhibiting a distinct pattern indicates that this assumption was assured.

Assumption of independence of errors in multiple regression was examined by looking at the Durbin-Watson coefficient value. According to Durbin and Watson (1951), this value should be between 1 and 3. In this study, the Durbin-Watson value was found to be 1.52, and it was concluded that this assumption was not violated. The relationship among VIF (variance influence factor), tolerance value and predictor variables was investigated for the multicollinearity assumption. According to this assumption, the relationship among predictive variables should not be greater than .90 (Field, 2009, 2013), the VIF value should be less than 4 (Pan and Jackson, 2008) and the tolerance value should be greater than .20 (Menard, 1995). It was found in this study that the highest correlation value among the predictive variables was .37 and less than the recommended .90 criterion. It was determined that VIF values varied between 1.03 and 1.19 and less than 4, and the tolerance values between .84 and .98 and were greater than .20. All these values indicate that the multicollinearity assumption was met.

Mahalanobis-distance values, mean values (Leverage statistic), Cook's D and DFBeta values were examined for the absence of outliers which is the final assumption of multiple regression. Mahalanobis distances were evaluated by the value p <.001. Accordingly, the critical value is $\chi 2$ (3) = 16.27. 8 values out of the calculated Mahalanobis-distance values were found to be exceeding this value, and these data were removed from the analysis after having been examined. Cook's D values being greater than one were considered to be outliers (Cook, 1977; Cook and Weisberg, 1982) while the mean values criterion was evaluated according to the formula 3(k+1)/ N proposed by Steven (2002). According to the calculated Cook's D values, 6 data (different from Mahalanobis distance values) were found to be greater than 2 and 2 data were greater than 1; so, these data were deleted. It was found that the mean value calculated to be .02 belonged to only 4 data only and 3 of these data were excluded from the analysis after individual controls. Similarly, Field (2009) suggested that the standardized DFBeta values should be less than 1. According to this criterion, 5 values were determined to be greater than 1 and were deleted. Briefly, a total of 24 data as outliers were deleted, and the analysis was continued.

In this study, regression analysis was performed to determine whether the dependent variable of smartphone addiction was predicted by adolescents' subjective well-being and the parenting styles (acceptance/involvement, psychological autonomy and strictness/supervision).

According to the regression analysis results, the correlation table showing the relationship between the predictor variables and smartphone addiction is given below. As seen in Table 1 below, the correlation values between the predictor variables (subjective well-being, parental acceptance/involvement, psychological autonomy and parental strictness/supervision) varied between -.20 and -.30.

It was determined that all variables were related to smartphone addiction and the highest relationship was between subjective well-being and smartphone addiction (r = -.30). Due to this high relationship, it is highly likely that the subjective well-being is the most powerful predictor of smartphone addiction.

Table 1. Correlation Table Showing the Relationship Between Smartphone Addiction and Predictor Variables

Variables	1	2	3	4	5
1. Smartphone Addiction	1				
2. Subjective Well-being	-.30*	1			
3. Parental Acceptance/Involvement	-.20**	.37**	1		
4. Psychological Autonomy	-.20**	.19**	.12	1	
5. Parental Strictness/Supervision	-.21**	.05	.12**	-.08	1

***p<.01*

The results of the regression analysis which was performed to determine whether smartphone addiction was predicted by adolescents' subjective well-being and parenting styles (acceptance/ involvement, psychological autonomy and strictness/supervision) are given in Table 2 below.

Table 2. Regression Analysis Results Concerning the Predictor Variables of Smartphone Addiction

Variables	*B*	*SE B*	*B*	*t*	sr^2	R^2	*F*
Subjective Well-Being	-.72	.12	-.23	-5.94	.04*	.16	30.64*
Parental Acceptance/Involvement	-.33	.18	-.07	-1.81	.00		
Psychological Autonomy	-.67	.15	-.16	-4.43	.02*		
Parental Strictness/Supervision	-.91	.16	-.20	-5.51	.04*		

**p<.05*

As seen in the regression table above, the model is significant and $F_{(4,666)}$ = 30.64, p <.05), explains about 16% of the variance in smartphone addiction. Accordingly, it was determined that all other variables except parental acceptance/involvement were negative predictors of smartphone addiction. Whereas subjective well-being (β = -.72, t = -5.94, p <.05) and parental strictness/supervision (β = -.91, t = -5.51, p <.05) explained 4% of the variance in smartphone addiction individually, psychological autonomy (β = -.67, t = -4.43, p <.05) alone explained 2% of the variance in smartphone addiction. These results indicate that smartphone addiction decreased as subjective well-being, psychological autonomy and parental strictness/supervision increased.

Independent samples t-test was performed to determine whether adolescents' smartphone addiction scores differed significantly by gender. Results of the independent samples t-test showing whether the difference between participants' mean scores of smartphone addiction differed statistically are presented in Table 3 below.

Table 3. Results of the independent samples t-test showing whether students' smartphone addiction scores differed by gender

	Gender	N	$\bar{X}$	Ss	Sd	t	p
Smartphone Addiction	Female	358	63.68	20.54			
	Male	313	65.62	20.69	669	-1.22	.22

According to Table 3, the independent samples t-test found no significant difference between participants' smartphone addiction scores by gender (t_{669}= -1.22, p= .22).

Independent samples t-test was performed to determine whether adolescents' smartphone addiction scores differed significantly by whether their parents were together or divorced. Results of the independent samples t-test showing whether the difference between participants' mean scores of smartphone addiction differed statistically are provided in Table 4 below.

Table 4. Results of the independent samples t-test showing whether students' smartphone addiction scores differed by whether the parents were together or divorced

	Parents Together or Divorced	N	$\bar{X}$	Ss	Sd	t	p
Smartphone Addiction	Together	625	64.23	20.35			
	Divorced	45	68.98	23.71	668	-1.49	.14

p<.05

It can be understood from the results of the independent samples t-test that there was no significant difference between participants' smartphone addiction scores by whether their parents were together or divorced (t_{668}= -1.49, p=.13).

One-way variance analysis was carried out to determine whether there was any significant difference between adolescents' smartphone addiction scores by the income level of their families. The analysis results are given in Table 5 below.

Table 5. Results of One-Way Variance Analysis Concerning Whether Smartphone Addiction Scores Differed by Income Levels of the Families

	Source of Variance	Sum of Squares	Sd	Mean of Squares	F	p
Smartphone Addiction	Intergroup	2069.58	2	1034.79	2.45	.09
	Intragroup	282141.89	667	423.00		
	Total	284211.46	669			

One-way variance analysis was carried out to determine whether participants' smartphone addiction scores differed by the income level of their families. It was found in the Levene's test that the assumption of variance homogeneity, which is an assumption of one-way variance analysis, was not assured (F = 4.45, p <.05). Although the assumption of variance homogeneity was not assured, the analysis was continued because the ANOVA test was strong against this assumption. According to the analysis results, it was determined that smartphone addiction scores did not show a statistically significant difference by the income level of the families $F_{(2,667)}$ = 2.45, p = .09).

One-way variance analysis was carried out to determine whether there was any significant difference between adolescents' smartphone addiction scores by their academic achievements. The analysis results are given in Table 6 below.

Table 6. Results of One-Way Variance Analysis Concerning Whether Participants' Smartphone Addiction Scores Differed by their Academic Achievements

	Source of Variance	Sum of Squares	Sd	Mean of Squares	F	p
Smartphone	Intergroup	12734.57	2	6367.28	15.60	.00*

Addiction	Intragroup	271834.99	666	408.16		
	Total	284569.56	668			

*p<.05

One-way variance analysis was carried out to determine whether participants' smartphone addiction scores differed by their academic achievements. It was found in the Levene's test that the assumption of variance homogeneity, which is an assumption of one-way variance analysis, was not assured (F=.4,63; p <.05). Although the assumption of variance homogeneity was not assured, the analysis was continued because the ANOVA test was strong against this assumption. The difference was found to be significant in the analysis ($F(2,666) = 15.60$, $p = .00$). According to the results of the Scheffe test conducted to determine between which groups the difference was, the students with low academic achievement had significantly higher scores of smartphone addiction than the students with higher (M_d =13.26, SD =2.77) and moderate (M_d =19.16, SD =3.54.) academic achievement. The results indicated that smartphone addiction scores of the students with moderate and higher academic achievement levels did not differ significantly (M_d =5.90, SD =2.52).
One-way variance analysis was carried out to determine whether there was any significant difference between adolescents' smartphone addiction scores by their duration of smartphone usage. The analysis results are given in Table 7 below.

Table 7. Results of One-Way Variance Analysis Concerning Whether Participants' Smartphone Addiction Scores Differed by their Duration of Smartphone Usage

	Source of Variance	Sum of Squares	Sd	Mean of Squares	F	p
Smartphone Addiction	Intergroup	65376.18	2	32688.09	99.48	.00*
	Intragroup	219490.81	668	328.579		
	Total	284866.99	670			

*p<.05

One-way variance analysis was carried out to determine whether participants' smartphone addiction scores differed by their duration of smartphone usage. It was found in the Levene's test that the assumption of variance homogeneity, which is an assumption of one-way variance analysis, was not assured $F_{(2,668)}$ =10.27 p<.05). Although the assumption of variance homogeneity was not assured, the analysis was continued because the ANOVA test was strong against this assumption. The difference was found to be significant in the analysis $F_{(2,668)} = 99.48$, $p = .00$).
According to the results of the Scheffe test conducted to determine between which groups the difference was, the students using smartphone for more than 3 hours had significantly higher scores of smartphone addiction scores than the students using smartphone for 1-3 hours (M_d =16.97, SD =1.56) and for less than 1 hour (M_d =27.33, SD =2.12) .
Similarly, smartphone addiction scores of the participants who reported usage for 1-3 hours were significantly higher than the scores of the participants who reported usage for less than 1 hour (M_d =10.35, SD =2.00) In the light of these results, it can be argued that duration of smartphone usage is more likely to cause addiction.

4. Discussion and Recommendations

According to the results of the analysis conducted to determine whether smartphone addiction was predicted by adolescents' subjective well-beings and parenting styles (acceptance/involvement psychological autonomy and strictness/supervision), all variables other than parental acceptance were negative significant predictors of smartphone addiction. While subjective well-being and parental strictness/supervision explained 4% of the variance in smartphone addiction individually, psychological autonomy alone explained 2% of the variance in smartphone addiction. These results indicate that smartphone addiction decreased as subjective well-being, psychological autonomy and parental strictness/supervision increased.

It was concluded in this study that there was a negative relationship between adolescents' smartphone addiction and subjective well-being levels. This result suggests that the level of smartphone addiction decreases as the level of subjective well-being increases. There are studies reinforcing this result of the study in the literature. According to the results of the study conducted by Kumcagız and Gunduz (2016), there is a negative relationship between smartphone addiction level and subjective well-being level. A similar study performed by Cho, Kim and Park (2017) concluded that stress had an apparent effect on smartphone addiction.

It is possible to explain this result as follows: Ko, Lee and Kim, 2012 state that there are many different themes which drag people into smartphone addiction. These themes include people who are hopeless and go through emotional discomfort, pain and insecurity, people trying to connect with others; psychological difficulties (over attachment and dependence, anxiety of separation, detention, reduced patience); threats about daily life's functionality, disorderly daily life, regression in daily functioning, health problems; broken interpersonal relationships, and feelings of being disagreeable. Subjective well-being is defined as having satisfaction with life dominated by positive emotions and less frequent negative feelings (Diener, 1984). People with high levels of subjective well-being are usually those who exhibit characteristics such as self-esteem, optimism, sense of personal control, extraversion, and a positive understanding of life. These people have a positive sense of life because they dominantly have positive feelings and thoughts (Myers and Diener 1995). It is accordingly possible to say that subjective well-being level will increase if positive emotions are dominant and there are fewer negative emotions in individuals' everyday lives, and therefore, their smartphone addiction levels will decrease. It is possible to say that in cases where negative emotions are dominant and positive emotions are less frequent, that is, individual has low subjective well-being, the level of smartphone addiction will increase. Indeed, the findings achieved in this study also showed that the level of smartphone addiction increased as the level of subjective well-being decreased. Because, according to Köknel (1998), individuals with behavioral addiction are referred to as individuals who exhibit a given behavior in an uncontrollably progressing manner and abnormal order, experience disorder in their everyday tasks and functioning and have difficulty in adapting to the social structure. It is observed that problem of smartphone addiction leads to several problems in mental health, social life and personal relationships (Choi, Lee and Ha, 2012). For all these reasons, it was concluded that there was a negative relationship between subjective well-being, which is the equivalence of happiness in psychology, and smartphone addiction.

According to the results achieved in this study, smartphone addiction decreased as psychological autonomy and parental strictness/supervision increased. The lack of a healthy relationship between parents and child is one of the important situations that lead the individual to smartphone addiction (Ryu & Cho, 2015). While the strictness/supervision factor explains to what degree the parents are strict/supervisory with their children, the psychological autonomy factor is about to what extent parents practice the democratic style and encourage the individuality of the child (Yılmaz, 2000).

Parents with democratic parenting style usually care about their children's opinions and are always warm and sincere to their children regardless of whether they fulfill their expectations. When a familial decision is to be taken, they help their self-confidence improve by including their children in this decision-making process and taking their opinions. They criticize the behaviors of children in a constructive manner and help children find the truth by taking lessons from the wrongdoing (Çağdaş, 2002). Parents practicing this style give their children the chance to express their abilities and to freely complete their development and allow them to express and actualize themselves (Baumrind, 1966). This parenting style is the most appropriate style for the personality development of children (Kulaksızoğlu, 2011). If parents of a child do not have a democratic style and not encourage him/her to express his/her individuality, it is likely to cause the child to grow up as introvert individuals who cannot express himself/herself in the society and have difficulty in expressing his/her needs and demands. If this is the case, the child will attempt to make up for his/her deficiencies by bringing himself/herself to the point he/she desires through a virtual identity he/she has created. According to Polat (2017), smartphone addiction is a behavioral addiction which offers an elbow room for individuals who are shy in real life, find it hard to express themselves and try to make up for their deficiencies in a virtual reality by becoming whoever they want to be through their own virtual identities without making any effort, going into any face-to-face communications and taking the responsibility for any relationship. Therefore, the fact that parents practice styles to allow their children to express themselves, providing them with the awareness that they are individuals and allow for the satisfaction of needs such as acceptance, approval within the family will limit the time children spend on smartphones, and in parallel, smartphone addiction levels will decrease as the children will not need to meet such needs of theirs on social media tools which are connected to via smartphones away from reality. In this study conducted on the basis of this association, it can be concluded that smartphone addiction decreased as psychological addiction and parental strictness/supervision increased.

Students' academic achievement levels were evaluated in three categories of low, moderate and high in this research. According to the results of analysis, regarding the adolescents' perceived academic achievement levels, the students with lower academic achievement had significantly higher scores of smartphone addiction than the students with moderate and higher academic achievement. It can be inferred from this finding that there was a negative relationship between smartphone addiction and academic achievement and that smartphone addiction affected the academic achievement of adolescents negatively. There are studies supporting this research with similar results in the literature. It is observed in the literature that there are studies showing a relationship (Judd, 2014; Lee & Lee, 2017; Lepp, Barkley & Karpinski, 2014; Meral, 2017; Uğur & Koç, 2015) and no relationship (Elmas, Kete, Hızlısoy and Auburn, 2015) between smartphone addiction and academic achievement. Indeed, it is possible to say that students who spend most of their time on smartphone, spend time with smartphones instead of doing homework and studying for exams will have lower academic achievement levels. In addition, it can be argued that the behaviors of keeping the smartphones with them during the class to check the instant notifications and misusing the smartphone during the class will cause students to distract and have a negative impact on learning behaviors as they cannot focus on the course sufficiently, leading to serious problems in attaining academic achievement. Hence, previous research studies concluded that excessive and unconscious use of smartphones affect academic achievement negatively. The results achieved in this research also coincide with this finding that excessive and unconscious use of smartphones affect academic achievement negatively.

As for the results of the analysis conducted to determine whether adolescents' smartphone addiction scores differed by gender, no significant difference was found in terms of gender. There are results in the literature in parallel with this finding of the research. The studies conducted by Dirik (2016), Süler (2016) and Glorifying (2016) found no significant relationship between smartphone addiction and the gender variable.
On the other hand, a group of researchers investigating whether smartphone addiction levels differed by gender observed a significant difference. It was concluded that the level of smartphone addiction differed by gender and the females' smartphone addiction levels were higher than the males' levels (Doğan and Tosun, 2016; Çakır and Oğuz, 2017; Genç Demirağ, 2017) Lee, Chang, Lin and Cheng (2014) concluded that smartphone addiction differed by gender, the females' smartphone abuse were higher than males' and the males were using professional job sites while the females were using social media sites (Twitter, etc.) in general. According to the results of the research conducted by Lee and Lee (2017), the female students were more addicted to smartphone than the male students, and as for gender-related differences, 9.5% of the

female students and 5.9% of the male students were classified as high-risk users, 33.1% of the females and 22.7% of the males were potentially at risk.

As understood from the research findings given above, there are research studies which did and did not find a difference between smartphone addiction levels by gender. The result achieved in this study supports the studies in the literature which found no difference in smartphone addiction levels by gender. The reason for this finding may be that smartphones can be easily available to everyone regardless of age, gender and socioeconomic status and functions of smartphones can appeal to both women and men. It is accordingly possible to argue that smartphone addiction does not differ by gender because smartphones have the potential to appeal to both women and men with their different functions, and therefore, have the addictive impact on users of both genders.

It was also found in an analysis of the study that there was no significant difference between adolescents' smartphone addiction scores by whether their parents were together or divorced. The results of the analysis performed to determine whether adolescents' smartphone addiction scores differed by perceived family income level showed no statistically significant difference. There are other studies observed in the literature to support this result of the study. Süler (2016) observed that there was no relationship between university students' smartphone addiction levels and income levels. It is possible to observe studies in the literature indicating that smartphone addiction levels differ by income levels. According to Dursun (2017), the level of addiction increases statistically and significantly as the socioeconomic level increases. Similarly, Özer (2013) concluded that problematic internet use among high school students significantly differed by the income level of the family.

As can be understood from the previous studies, there are varying results achieved on whether smartphone addiction levels differ by socioeconomic income. The results of this research coincide with the research studies which concluded that the level of smartphone addiction did not differ by perceived socioeconomic income of the family. The fact that smartphone production has increased with the advancing technology and there are smartphones affordable for almost everyone has enabled smartphones to be procured by everyone, and it is observed that adolescents including those of families with low income levels own smartphones as well. The smartphone addiction levels did not differ by the income levels of family probably for all these reasons.

The analysis performed to determine whether adolescents' smartphone addiction scores differed by their duration of smartphone usage showed that the students using smartphone for more than 3 hours had significantly higher scores of smartphone addiction scores than the students using smartphone for 1-3 hours and for less than 1 hour . Similarly, smartphone addiction scores of the participants who reported usage between 1 and 3 hours were significantly higher than the scores of the participants who reported usage less than 1 hour. In the light of these results, it can be argued that duration of smartphone usage is more likely to cause addiction. There are other studies observed in the literature to support this result of the study. Some of the studies in the literature (Çakır and Oğuz, 2017; Genç Demirağ, 2017; Dursun, 2017; Genç, 2017; Meral, 2017) concluded that individuals' smartphone addiction levels increased statistically and significantly as they spared more time to their mobile phones.

Since smartphones involve applications allowing individuals to exhibit behaviors which they will enjoy, individuals necessarily spend more time on smartphones and consequently become addicts. Particularly if it is the case for individuals going through adolescence which is characterized by search for excitement, risk-taking behaviors and effort to be in a group just like the sample of this research, the fact that smartphones have functions to offer them what they need may cause the time spent on smartphone to increase, and in parallel, lead to increase addiction levels. It can be accordingly argued that smartphone addiction levels will increase as smartphone usage duration extends. Therefore, a psychoeducational program can be prepared to reduce students' smartphone use and deal with the problem of smartphone addiction. This study took students as its sample. Using other occupational groups as sample will be useful for the generalization of the results in future studies. Again, the sample of this research consisted of high school students. It will be of use to examine these variables for students studying at different levels of education. It is observed that smartphone usage has been increasing among the students at the secondary school level. Secondary school studies can also be studied given this situation.

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Investigating the Relationship between Life Satisfaction and Academic Self-Efficacy on College Students' Organizational Identification

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ABSTRACT

This article explores the relationship between life satisfaction, academic self-efficacy, and organizational identification through a full structural equation model. The data was collected from 255 participants enrolled in different colleges within two universities via the scales of Life Satisfaction, Academic Self-Efficacy, and Organizational Identification. The results show that life satisfaction has direct significant effects on academic self-efficacy and organizational identification. In addition, the study also revealed that there is a significant indirect effect from life satisfaction to organizational identification via academic self-efficacy.

Keywords:
Academic self-efficacy; college students; higher education; life satisfaction; organizational identification; structural equation modeling

1. Introduction

Organizational identification, since it is related to both individuals' satisfaction and institutions' efficiency, has been an important concept since its first introduction. Tajfel and Turner (1979) developed the theory of Social Identity Theory and based on this theory, the concept of organizational identification was first developed by Ashforth and Meal (1989). According to this, through drawing social comparisons and identifying himself/herself within groups, an individual creates his/her identity. Organizational identification, in this sense, develops when an individual conceptualizes his/her identity via the organization he/she belongs and establishes a psychological bond between him/her and the organization (Fuchs, 2012). Developing organizational identification has some positive effects both on individuals and organizations. For example, motivating individuals for success, cooperating with other members of the organization, and putting more effort for the benefit of the organization are some positive effects observed (Ashforth, Harrison & Corley, 2008; Bhattacharya & Sen, 2003). In addition, individuals that develop organizational identification are highly tend to accept the decisions made by the organization, act in accordance with the organization's functions, and adopt the values set by the organization (Shamir, 1990). Moreover, those that develop strong psychological bonds with the organization share not only the success but also the failure of the organization (Mael & Ashforth, 1992). Considering the effects of identification on performance and success, therefore, it appears to be important for educational institutions to consider developing organizational identifications on the part of students.

In this regard, one may think of the sense of belonging to school or the concept of school identification. According to Participation-Identification Model, the sense of belonging is an essential component of developing identification with the school (Finn & Zimmer, 2012). For this model, school identification

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develops when a student considers himself/herself belong to the school and values outcomes related to the school (Voelkl, 2012). Such a sense of belonging prevents students from various problematic issues, such as dropping out and academic failure (Finn, 1989). According to some recent research on this topic, students that identify themselves with the school's academic culture are more motivated to success and have higher educational achievement (Finn & Cox, 1992). Also, considering the time spending at the school during the childhood and adolescent, it is regarded that school identification has an important role in healthy personal development. During this entire period, as shown previously, students identify themselves with those that are seen as role models in the school and accordingly they adopt some values, rules, and behaviors (Finn, 1989; Kağıtçıbaşı & Üskül, 2004).

Considering the positive effects of identification on students and institutions, it appears to be important to investigate factors that influence the sense of identification. Studies previously done for this purpose found, for example, that participating in school activities, appreciating the services provided by the school, and having some traits such as loyalty and commitment increase college students' sense of identification (Arnett, German & Hunt, 2003; Ceylan & Özbal, 2008; Harrison, Mitchell & Peterson, 1995). According to Meal and Ashforth (1992), also, organizational prestige has a positive effect on identification and many educational institutions use this fact for their advantages. In addition, Arnett et al. (2003) found that those who attribute higher prestige to their colleges provide higher financial support for their colleges and suggest their institution to others. However, despite all those studies, it still is considered that there may be more and various factors influential on organizational identification. It may not be easy to define all the factors. But, in general, some of those factors that play role in developing organizational identification are related to the organization, while some are related to the person.

Regarding identification with educational institutions, one of the most important personal factors can be defined as academic self-efficacy. A person's belief in the self for completion of academic assignments successfully is defined as academic self-efficacy (Bandura, 1982). According to social learning theory, an individual develops beliefs through his/her social relations as direct or indirect life experiences. In this sense, students' aims, motivation levels, academic achievements, for example, influence their academic self-efficacy beliefs and also strengthen their beliefs about realizing higher academic achievement (Schunk, 2009). In addition, those with higher self-efficacy beliefs are more eager to learn, put more effort, and develop more effective strategies against problems (Eggen & Kauchak, 1997). In other words, academic performance is affected by individuals' self-efficacy beliefs (Luszczynska, Gutiérrez-Doña, and Schwarzer, 2005). Therefore, it appears to be that academic self-efficacy and academic success are reciprocally influential over one another. In a similar way, identification plays a role in individuals' self-perceptions. It was found that in order to strengthen their self-respect, individuals tend to identify themselves with a more successful group, while refraining from less successful groups (Arnett et al., 2003). This, in fact, is related to the finding that individuals with higher identification perceive group success as personal success (Dutton, Dukerich & Harquail, 1994). Regarding college students, it can be assumed that there may be a significant relationship between students' academic self-efficacy beliefs and their tendency to identify themselves with their colleges, since self-efficacy is positively associated with college satisfaction (DeWitz &Walsh, 2002; DeWitz, Woolsey, & Walsh, 2009).

Another important personal factor with relation to identification can be defined as life-satisfaction, which is about how an individual evaluates his/her life in general with positive perceptions, including happiness, meaningfulness, and wellness (Diener, Emmons, Larsen & Griffin, 1985; Veenhoven, 1996). In other words, personal evaluation of an individual about how satisfactory life he/she has defines his/her life-satisfaction. Some previous studies found positive relationships between organizational identification and life-satisfaction (Suhlmann, Sassenberg, Nagengast & Trautwein, 2018; Yılmaz, 2008). For example, individuals with higher self-motivation (Hall, Schneider & Nygren, 1970) and higher work-satisfaction (Akman, 2017) have higher organizational identification. But, individuals with negative psychological traits such as a sense of loneliness (Yılmaz, 2008) or exhaustion (Avanzi, Schuh, Fraccaroli & Van Dick, 2015) have lower organizational identification. However, work-satisfaction, as noted by Polatçı, Ardıç and Koç (2014), is a mediating variable. Similar conclusions have been drawn regarding those who spent most of their times at school, students. For example, students who have higher school satisfaction and think they get enough support from the school develop higher school identification (Grace & Kim, 2008; Lee, 2008). In contrast, students with less life-satisfaction and having depressive feelings also develop negative school identification (Bugay, Aşkar, Tuna, Örücü & Çok, 2015; Stefanek, Strohmeier & Yanagida, 2017).

Aim of the Study

It is obvious that like many other institutions or organizations that aim for their members to develop strong identifications, colleges would like their students to establish strong bonds with their colleges. Students' satisfaction with the services provided by colleges is an important factor for a college in today's highly competitive league of higher education. Considering Turkish higher education, with the rapid increase in the number of colleges and of college students in recent years (Arslan & Akkas, 2014; Gunay & Gunay, 2017), partly as a result of competition between the colleges, student satisfaction and identification with the college have become more an important issue. Accordingly, there has been a growing literature on this topic. This current study investigates the relations between students' identifications levels, general life-satisfaction levels, and academic self-efficacy beliefs. It aims to contribute to the literature focusing on how to promote student identification with educational institutions in general. Therefore, the purpose of the study was to examine the relationship among Life-Satisfaction (LS), Academic Self-Efficacy (ASE) and Organizational Identification (OI) via a full structural equation modeling (FSEM). Specifically, it was aimed to assess whether academic self-efficacy mediates between life-satisfaction and organizational identification for college students. The hypothesized model was show in Figure 1.

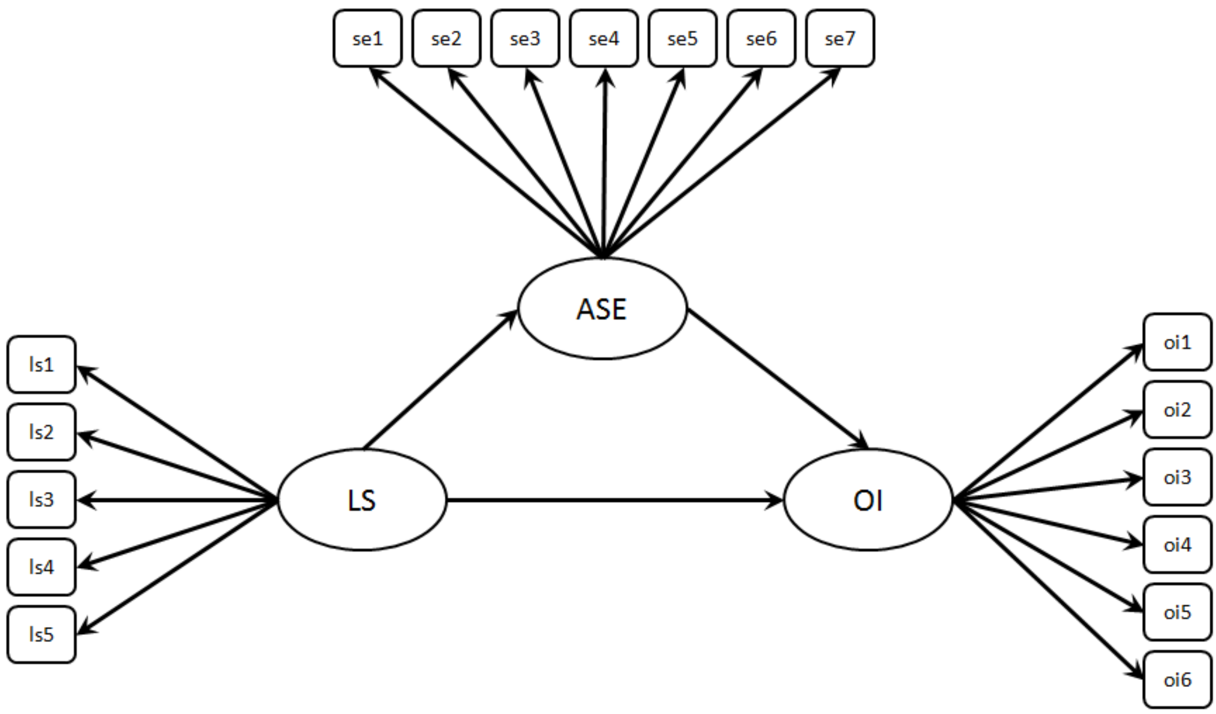

Figure 1. Hypothesized Model

2. Methodology

2.1. Sample

The participant of this study consisted of students from two universities. Convenience sampling procedure was used and the students were voluntarily joined to the study. The data was collected after ethical approval from different colleges (i.e., nursing and education) within the universities. Total number of participants was 255. %22 of the sample was male and the average age of the participants was 19.49 (sd = 1.15). The ages of the participants were raged between 18 and 26 years.

Life Satisfaction

Life satisfaction scale (LS) was developed by Diener et al. (1985). The scale was translated to Turkish by Dağlı and Baysal (2016). Turkish version of LS consisted of 5 items. The items were using 7-point Likert scale from strongly disagree (1) to strongly agree (7). The construct validity of the Turkish version of scale was analyzed via explanatory and conformity factor analysis and a one-factor-structure was established. The internal consistency of the items (Cronbach alpha) was .84 for the current data set and .88 for adaptation study (Dağlı & Baysal, 2016).

Academic Self Efficacy

Academic self-efficacy (ASE) scale was developed by Jarusalem and Schwarzer (1981, as cited in Yılmaz et al., 2007) and was adapted to Turkish by Yılmaz, Gürçay and Ekici (2007). A total of 7 items were used to measure ASE scale. The items were scored with 4-point Likert scale. One of the items was negatively worded. Therefore the item was inverted before using in the scale. The structure for scale was analyzed by explanatory factor analysis and a one-factor-structure was established. Criterion validly was tested by using Rosenberg's Self-esteem Scale. In order to assess the internal consistency among the items Cronbach alpha was used. The alpha value was .79 for the adaptation study (Yılmaz et al., 2007) and was .71 for the current data.

Organizational Identification

Mael and Ashforth (1992) was introduced the organizational identification scale (OI). The scale was translated to Turkish by Tak and Aydemir (2004, as cited in Polat & Meydan, 2010). OI scale has 6 items. The items were measured with a 5-point Likert scale from strongly disagree (1) to strongly agree (5). The Cronbach alpha value of the scale was .68 for the data collected in this study. However, third item (OI3) in the scale indicated lower alpha value. That is, removing the item from the scale increased the alpha value to .74.

Table 1. Descriptive statistics and correlation coefficients at item level

				Correlations																
				LS					ASE							OI				
	#	Mean	SD	1	2	3	4	5	1	2	3	4	5	6	7	1	2	3	4	5
LS	1	4.96	1.65	1																
	2	4.37	1.65	.67	1															
	3	5.13	1.71	.60	.62	1														
	4	5.22	1.54	.48	.51	.58	1													
	5	3.95	1.93	.41	.47	.47	.47	1												
ASE	1	3.04	.67	.07	.04	.08	.15	.04	1											
	2	3.15	.72	.02	.02	.12	.13	.03	.32	1										
	3	3.09	.75	.16	.12	.11	.13	.11	.37	.38	1									
	4	2.67	.83	.08	.15	.19	.15	.07	.31	.38	.39	1								
	5	2.06	.89	.06	.14	.15	.14	.19	.22	.27	.34	.47	1							
	6	2.67	.88	.09	.18	.14	.13	.06	.15	.22	.20	.29	.38	1						
	7	3.00	.89	.04	.01	-.00	-.0	.09	.11	.23	.27	.10	.06	.1	1					
OI	1	3.21	1.23	.16	.04	.14	.09	.05	.20	.06	.18	.18	.15	.02	.08	1				
	2	3.03	1.42	.00	.00	.03	.06	-.1	.20	.03	.13	.04	.05	-.10	.02	.39	1			
	3	2.65	1.43	.05	.02	-.00	-.1	.04	.00	.01	.05	.15	.06	-.00	-.00	.06	.04	1		
	4	3.52	1.26	.18	.15	.20	.14	.11	.32	.12	.20	.19	.16	.15	.06	.39	.33	.09	1	
	5	4.06	1.06	.18	.11	.20	.20	.04	.24	.09	.15	.12	.08	.07	.06	.37	.38	.11	.61	1
	6	2.96	1.44	.12	.04	.11	.09	.04	.10	-.10	.02	.02	-.00	-.10	-.00	.25	.29	.12	.39	.33

2.2. Data Analysis

Item level descriptive statistics and correlation coefficients were optioned via SPSS and reported in Table 1. In order to test the SEM model showed in Figure 1, Mplus 5.1 was used (Muthen and Muthen 1998–2010). The estimation method used for the model was Robust Maximum Likelihood (MLR). The hypothesized model was tested in two steps. At the first step, the measurement model was tested. The measurement model is shown in Figure 2. After having a good model data fit for the measurement model the structural model was tested at the second step. Model-data fit was evaluated based on Hu and Bentler's (1999) recommendations. Chi-square, CFI (comparative fit index), RMSEA (root mean square error of approximation) and SRMR (standardized root mean square residual) values were used for the model-data fit. RMSEA shows a good fit for lower than .06, CFI value is greater than .95 and SRMR is lower than .08 (Hu & Bentler, 1999).

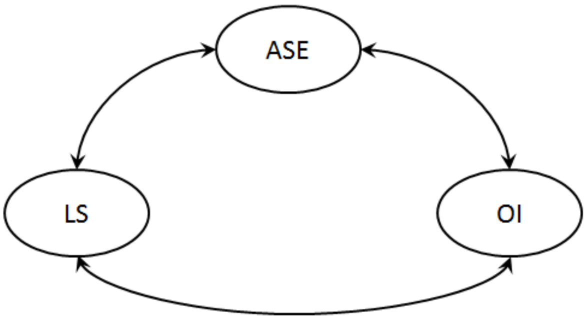

Figure 2. The measurement model

3. Results

3.1. Correlations

Table 1 shows descriptive statistics for each item. For example the average agreement for the first item under LS (ls1) is 4.96 and its standard deviation is 1.65. Besides, Table 1 also shows inter-item correlations. It was expected that the inter-item correlation coefficients within the factors (i.e., LS) were higher than across the factors. However, item 3 under OI (oi3) indicated low correlation values with other items under the factor. For example the correlation between item 1 (oi1) and 3 (oi3) was .06 and not significant. Except item oi1 all other items were significantly related other items under corresponding factors.

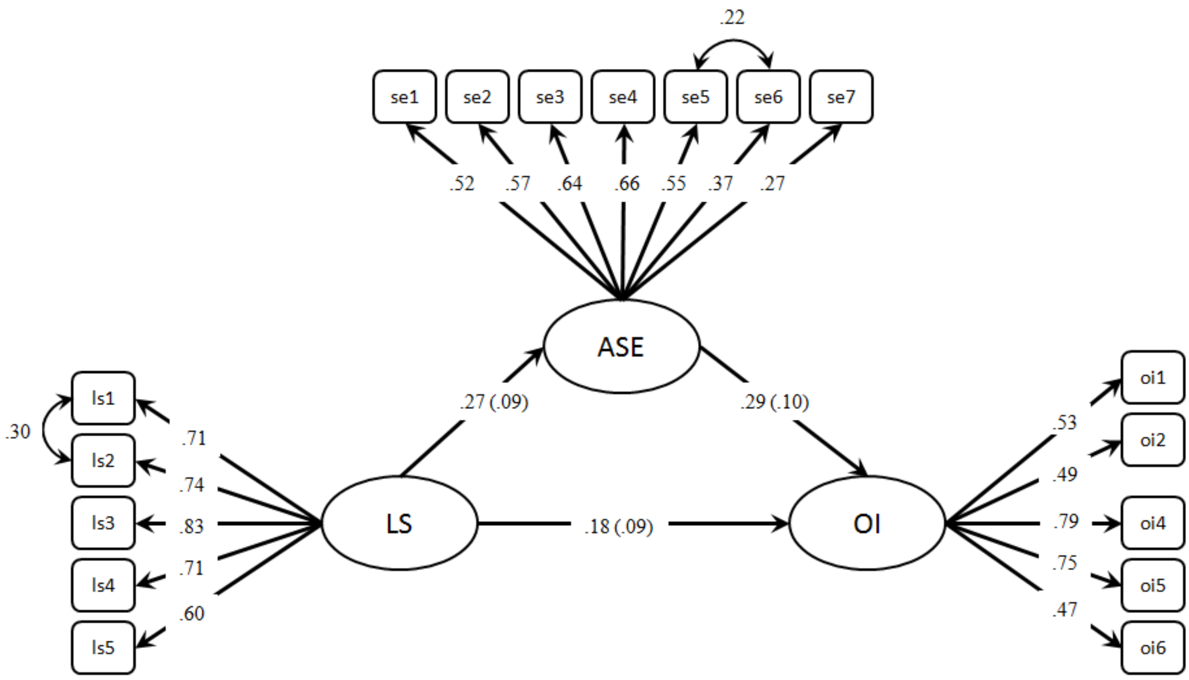

Figure 3. The final model with standardized parameter estimates

3.2. Modeling Strategy

Data analysis was conducted via Mplus 5.1. The measurement part of the hypothesized model was first run. Except chi-square value, the fit indices pointed good model-data fit. However, item oi3 was not significant. Based on the evidence collated from the correlation and Cronbach alpha values it was deiced to remove item 3 from the analysis. After removing the item the measurement model was re-run. Model modifications indices indicated adding few error correlations. For example correlation between ase1 and ase2 was added to model in order to increase the chi-square value of the model. Finally, structural model was tested by using the final measurement model. The final model with standardized parameter estimates were shown in Figure 3.

3.3. Measurement Model

In order to test the hypothesized model first a measurement model was tested (Measurement 1). The measurement model replaces all the direct effect between factors on the hypothesized model with correlations as in shown in Figure 2. The first model indicated item oi3 was not significantly loading on the factor. Therefore it was removed from the model and a new measurement model was run. All the factor loadings were significant at the second model. However, modification indices (Lagrange Multiplier Test) indicated adding two error correlations in order to increase the chi-square fit of the model. These error correlations were added to the model and final measurement model (Measurement 2) was obtained. Table 2 shows the fit indices for the models tested. Based on the critical values (Hu & Bentler, 1999) final measurement model indicated good model-data fit. Therefore, it was preceded with the second step (structural model).

Table 2. Model-Data fit indices

Model	χ^2	*df*	*Sig.*	*Scaling*	*CFI*	*RMSEA*	*SRMR*
Measurement 1	168.96	132	.02	1.175	.959	.033	.054
Measurement 2	135.80	114	.08	1.177	.975	.027	.053

3.4. Structural Model

By replacing the correlation among the factors with direct effect as in the hypothesized model structural model was established. Since the final measurement model and structural model had the same parameters to estimate, the model fit indices were the same for both models. Therefore, chi-square value for the structural model was 135.80 with 114 degrees of freedom (p-value >.05). Other fit indices were also indicated good model fit based on Hu and Bentler (1999) criteria (see table 2). Under the structural model all the direct effects were significant between the factors. The standardized parameter estimates were reported in figure 3. For example, the direct effect from life satisfaction to organizational identification was significant and the standardized estimated was .18 with standard error of .09. This means that life satisfaction was positively affecting organizational identification. That is, one standard deviation increase on life satisfaction will incase organizational identification by .18 standard deviation.

Besides the direct effect, indirect effect was also estimated under the model. The results indicated that there was a significant indirect effect from life satisfaction to organizational identification via academic self-efficacy. The standardized parameter estimate for the indirect effect was .08 and standard error of it was .036.

4. Discussion and Conclusion

This study aimed at providing an understanding of relations among general life satisfaction, academic self-efficacy beliefs, and identification levels of college students. As the results suggest, all the direct effects shown in the structural model are significant between the factors. For example, this current study revealed that life satisfaction positively affects academic self-efficacy. This result shows some similarities with the findings of previous studies. However, the result provided in this current study highlights a different aspect of this relationship. For example, Leganger, Kraft, and Røysamb (2000) and Diseth, Danielsen and Samdal (2012) found a positive relationship between self-efficacy and life satisfaction. Luszczynska, Gutiérrez-Doña, and Schwarzer (2005) reported that general self-efficacy positively affects individuals' life satisfaction. In addition, Burger and Samuel (2017) found that levels of stress in education and self-efficacy beliefs affect adolescents' life satisfaction levels in transition to young adulthood. Moreover, a study conducted on college students by O'Sullivan (2011) found that self-efficacy is positively associated with life-satisfaction. Although the positive relationship between the two factors has been highlighted by various studies generally revealing the impact of self-efficacy on life satisfaction, this current study contributes to the literature by placing more stress on the direct effect from life satisfaction to self-efficacy.

Another direct effect indicated by the results of this study is that academic self-efficacy positively affects organizational identification. Previous studies also found a similar relationship between the two and the result of this study appears to be in line with the findings of previous studies. For example, students that identify themselves with the educational institution put more effort to gain more academic achievements (Finn & Cox, 1992). In turn, students develop higher self-efficacy beliefs and become more effective in problem solving and academic achievements (Eggen & Kauchak, 1997; Schunk, 2009). This current study, moreover, found another positive relation between life satisfaction and organizational identification. This finding is too in accordance with the results of previous studies. For example, while having negative feelings reduce organizational identification levels of individuals as in the case of loneliness and exhaustion (Avanzi et al., 2015; Yılmaz, 2008), having lower life satisfaction levels also lowers students' organizational identification levels (Bugay et al., 2015; Stefanek et al., 2017). In this regard, as provided by Arslan and Akkas (2014), life satisfaction and university identification positively affects college students' college life satisfaction. All these findings appear to be important because college students tend to identify themselves with the image of their colleges when they have higher college life satisfaction levels (Hennig-Thurau et al., 2001; Bhattacharya & Sen, 2003), meaning that they develop higher organizational identification as their life satisfaction levels improve and college experiences broaden positively.

This study also revealed the role of academic self-efficacy as a mediator between life satisfaction and organizational identification. As supported by the structural model used in this study, it appears to be that there is a significant indirect effect between life satisfaction and organizational identification via academic self-efficacy. In other words, the results show that increase in life satisfaction promotes increase in organizational identification over its effect on academic self-efficacy. In this regard, this current study also contributes to the literature by highlighting the indirect effect from life satisfaction to organizational identification through self-efficacy as a mediator.

Before concluding, it may be helpful to consider some limitations and further research suggestions. For example, although this study was conducted with the participants that show culturally diverse characteristics, a further research would consist of various sets of participants from different colleges across the country and perhaps from some other countries. In this regard, a comparative analysis would make an important contribution to the literature. Another important thing may be related to the variables examines in this study. A further research would focus on wider relations between these and some other variables so that a broader perspective on this issue would be provided. To conclude, despite these limitations, the current study appears to have considerable significance to understand the relations among these concepts and draws attention to the importance and role of these factors in providing a better-quality college life and academic achievements. In this regard, it may be insightful to highlight the importance of offering services and activities – starting from even the orientation throughout the entire college life – that help college students increase their life-satisfaction and self-efficacy beliefs so that they develop stronger organizational identifications and gain higher academic achievements. Providing more academic studies on this issue may also be an important suggestion that can be offered by this study.

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The Relationship between Smartphone Addiction and Life Satisfaction: Faculty of Sport Sciences Students

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ABSTRACT

The aim of this study was to investigate the relationship between smartphone addiction and life satisfaction of the students studying at faculty of sport sciences and to determine whether these parameters differ in terms of various variables. In the study, the Smartphone Addiction Scale developed by Kwon et al. (2013) and adapted to Turkish by Noyan et al. (2015) was used to determine the level of smartphone addiction of the participants. Life Satisfaction Scale developed by Diener et al., (1985) and adapted to Turkish by Köker (1991) was used to determine the life satisfaction levels of the participants. Conventional sampling method was preferred for sample selection and face-to-face survey method was used for data collection. In the analysis of the obtained data, descriptive statistics, Independent Sample t-test, One-way ANOVA and Pearson Correlation Analysis were used. A total of 554 volunteers participated in the study: 276 males (49,8 %) and 278 females (50,2%). According to the results of the research, smartphone addiction and life satisfaction parameters had a statistically significant difference according to various variables. In addition, there was a significant negative correlation between life satisfaction and smartphone addiction. As a result, it was determined that as life satisfaction levels increased, smartphone addiction levels of participants decreased.

Keywords:
Smartphone Addiction, Life Satisfaction, Sport Sciences

1. Introduction

Together with the 20th century, there have been great developments in the mass media. Both new communication tools have been invented and the number of these tools has increased considerably.
In the process of time, digital revolution transformed the structure called as *"smart revolution"* (Yi&Yin, 2010) by creating mobile communication technologies, smartphones and tablets.

Smart devices, considered only as distant communication tools in the past, started to be used for different needs and purposes for many people by being equipped much more extensive features except for their instrumental characteristics. Smartphones have many features such as communication, internet, photography, multimedia and navigation. The use of smartphones has increased rapidly, and this rapid increase has brought about addiction and problematic use.

The increase in the use and functions of smartphones in life has led to an increase in the researches on the effects of smartphones on psycho-social fields. The fact that each telephone became a computer together with

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the improving technology has brought forward the attribution of addiction that presents a social threat as well as its useful utilization (Bulduklu & Özer, 2016).

At the basis of self-repeating behaviors, there are behavioral dependencies. The pleasurable aspect of these self-repeating behaviors can be continuously transformed into habits (Grant, 2010). As it is in any kind of dependencies, dealing much with a certain behavior reveals a pleasurable behavior in the lives of individuals, but at the same time it can create dependencies that move them away from the real world and lead stress and tension (Chakraboty, Basu & Vijaya, 2012). Işık & Kaptangil (2018) also stated that social media usage via smartphones in today's society became an indispensable part of daily life especially for university students, and they claim that this situation could be explained by associating the problem of smartphone addiction with the personal characteristics of individuals.

As a result of the researches, it was concluded that excessive use of smartphones led to a problematic behaviors of individuals (Palen, Salzman & Youngs, 2001; Paragas, 2005). Increasing functionality of smartphones has become a tool of dependence not only for interpersonal communication but also for other functions such as social media and digital games. Individuals have turned to smartphones instead of leisure activities as entertainment devices (Ekinci, Yalçın & Ayhan, 2019; Bian &Leung, 2014). This situation may negatively affect life satisfaction by preventing individuals from self-realiziation.

Life satisfaction was one of the issues became the focus of humanity throughout the ages, described as the result of the comparison of the individual's expectations with what the individual had (Haybron, 2004; Çevik & Korkmaz, 2014), the individual`s positive evaluation of his/her own life with his/her own means (Diener et al., 1985; Veenhoven, 2000) and the combination of beliefs and desires on life (Rice, Frone & McFarlin, 1992) and the merge of the concepts of happiness and subjective well-being (Sirgy, 2012).

Life satisfaction can be considered as one of the most important basic elements that people should have in their lives in order to make sense of their lives and to be happy with a full well-being cognitively. Life satisfaction is not one's being satisfied under a certain situation, but with all aspects of the mind cognitively, permanently and comprehensively in a holistic way. Life satisfaction is the reflection of the situation of one's judging, appreciating, approving and being satisfied with his/her life consciously that s/he compare his/her life conditions with the standard that imposed to him/her as a result of his/her comparison life expectations with the current situation (Shin & Johnson, 1978; Diener, et al., 1985; Haybron, 2007). The concept of satisfaction "means achieving something desired, gaining emotional satisfaction, satisfying" (Aydoğan, 2013).

This research aimed at revealing whether the parameters affecting the relationship between smartphone addiction and life satisfaction levels of the faculty of sports sciences students differ in terms of various variables. In the literature, there are some studies related to the issue on a wide variety of variables and factors. However, there is no study related to the issue on especially university students studying at the faculty of sports sciences. Therefore, it was thought that this research would contribute to this field. Finally, the literature on the relationship between smartphone use and life satisfaction would be evaluated briefly.

2. Method

2.1. Research Model

The research was conducted based on a quantitative research design. In a population consisting of a large number of elements a general survey model, on which the survey was conducted on the whole population or on a sample taken from it, was performed in order to reach a general judgment about the population (Karasar, 2012).

2.2. Participants

A total of 554 students (276 males (49,8%) and 278 (50,2%) females) studying at Sakarya University, Faculty of Sports Sciences and selected by using convenience sampling method, were participated in the study voluntarily. In the framework of the research, it was aimed at reaching a certain part of the students of the faculty of sports sciences, a total of 600 questionnaire were conducted by face to face survey model but after eliminating the incomplete and missing ones 554 questionnaire were used for analyzing.

Table 1. Demographic Features

Variables		n	%
Gender	Male	276	49,8
	Female	278	50,2
Age	20 and below	192	34,7
	21-23	289	52,2
	24-26	48	8,7
	27 and older	25	4,5
Department	Physical Education and Sports Teaching	102	18,4
	Sports Management	75	13,5
	Recreation	146	26,4
	Coaching	231	41,7
Grade Point Average	2.00 and below	128	23,1
	2.01-2.50	128	23,1
	2.51-3.00	157	28,3
	3.01-3.50	120	21,7

2.3. Data Collection Tool

In the research, leisure constraints and smartphone addiction scales were used as data collection tools. The form prepared to collect the data has three parts. In trhe first part of the form the "Personal Information Form," was used to determine the demographical and participation oriented information such as the participants' genders, ages, departments and grade point averages.

In the second part, "The Smartphone Addiction Scale", developed by Kwon et.al (2013) and adapted into Turkish by Noyan et.al (2015) was used in order to determine the smartphone addiction levels of the participants. The scale comprises a total of 10 questions, with a six-point Likert type scaling. The scale points vary from 10 to 60. Also the test/repeat test reliability coefficient was found as 0.926.

In the third part, "Life Satisfaction Scale" developed by Diener et.al., (1985) and adapted to Turkish by Köker (1991) was used in order to determine the life satisfaction levels of the participants. The answers were rated in a 5-point likert type scale (1 = definitely not expressing me, 5 = definitely expressing me). Köker (1991) found that the test-retest coherence coefficient of the scale, which was performed three weeks apart, was 0.85. The scale points vary from 5 to 35.

2.4. Data Analysis

SPSS package software program was used in the analysis of the data obtained from the research. Skewness and kurtosis values were checked in order to determine whether the data showed a normal distribution. These values were checked and assessed from +2 to -2 (George & Mallery, 2001). As a result of the assessment, it was seen that the data were normally distributed. Accordingly, as well as descriptive statistics, Independent Sample t-test was used for paired comparison, One-way ANOVA was used for the comparison of more than two groups, and Pearson Correlation Analysis was used to determine the relation between the variables.

Table 2. Descriptive Statistics of Research Variables

Variables	N	Min.	Max.	Mean	Sd.	Skewness	Kurtosis	Cronbach Alpha
Life Satisfaction	554	10,00	60,00	30,64	11,24	,131	-,480	,880
Smartphone Addiction	554	5,00	35,00	20,05	7,12	-,376	-,609	,905

In addition to the mean and standard deviation values of the research variables, the variables were evaluated by considering the skewness and kurtosis values of the data if they had a normal distribution. The findings showed that the data were close to normal distribution and parametric analyzes could be applied. On the other hand, when the internal consistency coefficients of the variables were examined, it was determined that Cronbach α values ranged from .880 to .905 (Coşkun et.al., 2017; Büyüköztürk, 2016).

3. Results

Table 3. Difference Analysis of Smartphone Addiction and Life Satisfaction Levels According to the Gender of the Participants

Variables	Gender	N	Mean	Sd.	t	p
Smartphone Addiction	Male	276	30,01	10,89	-1,312	-190
	Female	278	31,26	11,56		
Life Satisfaction	Male	276	19,80	7,47	-,834	,404
	Female	278	20,30	6,76		

When the results of the analysis were examined, it was determined that there was not a statistically significant difference in smartphone addiction and life satisfaction variables in terms of gender (p>0,05).

Table 4. Difference Analysis of Smartphone Addiction and Life Satisfaction Levels According to the Ages of the Participants

Variable	Age	N	Mean	Sd.	F	p	Post-Hoc
Smartphone Addiction	20 and below[a]	192	32,95	10,78	5,045	,002	a-b,d
	21-23[b]	289	29,77	11,15			
	24-26[c]	48	28,88	12,55			
	27 and older[d]	25	26,28	10,35			
	Total	554	30,64	11,24			
Life Satisfaction	20 and below[a]	192	19,92	7,09	,351	,788	-
	21-23[b]	289	20,04	7,07			
	24-26[c]	48	20,96	7,60			
	27 and older[d]	25	19,40	7,26			
	Total	554	20,05	7,12			

According the Table 4, while it was determined that there was no statistically significant difference in the variable of life satisfaction (p>0,05), a statistically significant difference was determined in the smartphone addiction in terms of age (p<0,05). Accordingly, it was seen that there was a statistically significant difference between the smartphone addiction levels of the participants at the age of 20 and below and the ones between the ages of 21-23 and those at the age of 28 and older.

Table 5. Difference Analysis of Smartphone Addiction and Life Satisfaction Levels in Terms of Participants' Department

Variable	Department	N	Mean	Sd.	F	p	Post-Hoc
Smartphone Addiction	Physical Education and Sports Teaching[a]	102	29,99	12,37	4,245	,006	b-c,d
	Sports Management[b]	75	26,76	10,15			
	Recreation[c]	146	31,04	9,92			
	Coaching[d]	231	31,93	11,59			
	Total	554	30,64	11,24			
Life Satisfaction	Physical Education and Sports Teaching[a]	102	22,24	6,16	5,385	,001	a-b,c
	Sports Management[b]	75	18,97	7,66			
	Recreation[c]	146	18,82	7,62			
	Coaching[d]	231	20,21	6,80			
	Total	554	20,05	7,12			

When Table 5 was examined, it was determined that there was a statistically significant difference in the variable of smartphone addiction and life satisfaction levels of the participants in terms of their departments (p<0,05). Accordingly, it was seen that there was a statistically significant difference between the smartphone addiction levels of the individuals studying at the department of sports management and those studying at the department of coaching. In addition, there was a statistically significant difference between the life satisfaction levels of the students studying at physical education and sports teaching, those studying at the department of sports management and the recreation department.

Table 6. Difference Analysis of Smartphone Addiction and Life Satisfaction Levels in Terms of the Grade Point Average of the Participants

Variable	Grade Point Averages	N	Mean	Sd.	F	P	Post-Hoc
Smartphone Addiction	2,00 and below[a]	128	30,27	10,81	2,214	,066	-
	2,01-2,50[b]	128	31,85	11,68			
	2,51-3,00[c]	157	31,15	11,29			
	3,01-3,50[d]	120	28,43	10,54			
	3,51-4,00[e]	21	34,29	13,12			
	Total	554	30,64	11,24			
Life Satisfaction	2,00 and below[a]	128	18,30	7,61	3,359	,010	a-c,d
	2,01-2,50[b]	128	19,65	6,42			
	2,51-3,00[c]	157	20,96	7,31			
	3,01-3,50[d]	120	21,00	6,91			
	3,51-4,00[e]	21	21,00	6,23			
	Total	554	20,05	7,12			

When the results of the analysis were examined, it was determined that there was no difference in the variable of smartphone addiction in terms of grade point averages (p>0,05). On the other hand, a statistically significant difference was determined in the life satisfaction in terms of grade point averages (p<0,05). Accordingly, it was seen that there was a difference between the participants having the grade point average of 2.00 and below and those having 2,51-3,00 and 3,01 and 3,50.

Table 7. Correlation Analysis of Participants' Smartphone Addiction and Life Satisfaction Levels

Variables		Smartphone Addiction	Life Satisfaction
Smartphone Addiction	r	1	-,113**
	p		,008
Life Satisfaction	r	-,113**	1
	p	,008	

p<0,001**; N=554

When the analysis results were examined, it was determined that there was a negative correlation between smartphone addiction and life satisfaction variable (p<0,001).

4. Discussion and Conclusion

The use and development of smartphones, one of the most important tools of modern technology has changed the way people communicate, gather information, and access the Internet (Hayes et al., 2016). The use of smartphones out of purpose and overuse causes negative consequences such as addiction (Balta & Horzum, 2008). Researches in the related literature have reported that individuals who perceive negative emotions such as depression and anxiety tend to be highly dependent on smartphone addiction (Ahn, 2016; Demirci et al., 2015). Depression and loneliness have negative relations with life or psychological well-being (Çardak, 2013; Carden & Rettew, 2006). In this respect, the aim of this study was to investigate the relationship between smartphone addiction and life satisfaction and to determine whether these parameters differ in terms of various variables.

When the results of the analysis were examined, it was found that there was no statistically significant difference in smartphone addiction and life satisfaction according to gender. In the literature, there are studies supporting the results related to smartphone addiction in this study (Çalışkan et al., 2017; Minaz & Çetinkaya-Bozkurt, 2017; Bavlı et al., 2018; Dikeç & Kebapçı, 2018). It is thought that this result may be caused by the rapid development of technology and the fact that almost every individual has a smartphone. There are also studies in the literature that do not support the results found in this study (Keskin et al. 2018; Roberts, Yaya & Manolis, 2014; Kwon et al., 2013; Noyan et al., 2015; Van Deursen et al., 2015; Aljomaa et al., 2016). This may be due to the age group of the studies and environmental factors of the sample. In the literature, there are studies supporting the results related to life satisfaction in this study (Hampton & Marshall, 2000; Hintikka et.al., 2001; Joronen et.al., 2002).

When the results of the analysis were examined, it was determined that there was no statistically significant difference in life satisfaction according to age and it can be seen that the satisfaction levels of all age groups are moderate. This situation is thought to be due to the fact that the working group consists of university students who have not yet reached the stage of self-realization.

When the results of the analysis were examined, it was seen that there was a statistically significant difference in smartphone addiction according to age. As the age of the participants increase, their levels of smartphone addiction decrease. In the literature, there are studies supporting the results related to this study (Augner & Hacker, 2011; Kwon et al., 2013; Van Deursen et al., 2015; Haung et al., 2015; Kuyucu, 2017; Bavlı et al., 2018). It is thought that this situation may because of the fact that university students are generally leave their phones or decrease using them when they have more exams because their responsibilities began to increase as their ages increase.

When the results of the analysis were examined, it was determined that there was a statistically significant difference in the variable of smartphone addiction and life satisfaction levels of the participants in terms of the departments.

When the findings related to the main purpose of the study were examined, it was determined that there was a negative correlation between smartphone addiction and life satisfaction variables. Accordingly, as the life satisfaction levels of the participants increased, the levels of smartphone addiction decreased. It was supported by studies in the literature that individuals with low life satisfaction levels were more smartphone addicts (Chiu 2014; Chang 2015; Demirci et al., 2015; Ahn, 2016).

Samaha and Hawi (2016) investigated the relation between the risk of smartphone addiction and life satisfaction mediated by stress and academic performance among totally 300 university students. The researchers also examined whether life satisfaction mediated by stress and academic performance would make smartphone addiction easy. As a result, the researchers found that the risk of smartphone addiction was positively related to the perceived stress, but negatively related to life satisfaction. In the same research, while a positive relation occurred between academic performance and life satisfaction, it was observed that the risk of smartphone addiction and academic performance were related negatively.
In this study, aimed at examining the relationship between smartphone addiction and life satisfaction levels of the faculty of sports sciences students, and analyzing whether these parameters differ in terms of several variables, it was determined that there was a statistically negative difference between the smartphone addiction and life satisfaction levels of the participants.

5. Limitations of the Study and Further Research

The research has some limitations. First of all, the scale was used to measure the smartphone addiction. Measurements of mind waves, biological other measurements (Randler, Horzum, & Vollmer, 2014) the measurements based on smartphone usage, time and data can be made in addiction measurements. In addition, studies were carried out by the students of Sakarya University of Applied Sciences. In order to obtain more generalizable data, similar or different studies can be performed by collecting data from students of different universities. In the study, the data of smartphone addiction was taken as a discontinuous variable. For the future studies, structural equation modeling can be performed with continuous data. In this model studies, smartphone addiction can be examined with psychological isolation, anxiety, depression, social skills, personality patterns, academic achievement and traffic accidents.

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The Roles of Value Preferences and Cognitive Emotion Regulation Strategies on Prediction of Dating Violence

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ABSTRACT

The aim of this study is to determine in what extends gender, age, relationship status, value preferences and cognitive emotion regulation strategies predict the dating violence. The study group was comprised of 335 university students. Attitudes Towards Dating Violence Scale, Cognitive Emotional Regulation Scale and Values Scale were used in data collection. According to the findings obtained from research, it was found that there were positive significant relationships between gender and social values, career values, intellectual values, spirituality and dating violence. On the other hand, the findings showed that gender and age variables are significant predictors of dating violence. Social values, intellectual values and freedom values positively predict dating violence. Spirituality, human dignity, romantic values and futuwwa negatively predict dating violence. Increasing the importance given to the social values, intellectual values and freedom values increases the attitudes that not supporting dating violence. On the other hand, increasing the importance given to spirituality, human dignity, romantic values and futuwwa decreases the attitudes supporting dating violence. It was found that there was a positive significant relationship between age and materialistic values and negative significant relationship between age and dating violence. Findings support that gender, age, cognitive emotion regulation strategies and value preferences are significant predictors of dating violence.

Keywords:
dating violence, cognitive emotion regulation, value preference, youth

1.Introduction

Dating violence is generally expressed as all of the behaviours and limitations of deliberate damage that one of the partners or both of the partners trying to gain power and control over the other during a romantic relationship or after the relationship. The concept of dating violence is considered in literature as a synonym of a type of violence or a sub-type of violence such as violence in a romantic relationship, in a close relationship, domestic violence and among concept of interpersonal violence as in a partner/spouse relationship or in a couple relationship (Breiding, Basile, Smith, Balack & Mahendra, 2015; Kepir-Savoly, Ulaş & Demirtaş-Zorbaz, 2014; Öngün & Ünsal, 2018; Polat, 2016).
The most common types of incidence of dating violence in societies are known as physical, sexual, psychological, digital and stalking. Summarize, physical violence is undesired behaviours based on physical power and force to the partner for deliberate damage – such as pushing, hitting or kicking. Sexual violence is undesired behaviours forcing or oppressing the partner for a sexual action such as harassment and rape. Psychological violence, the unseen type of violence, is defined as suppressing the partner with the actions such as insulting, embarrassing, teasing or frightening. Digital violence, control and pressure towards the partner,

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is realized by digital tools as phone or computer on internet or social media. There is another definition in the literature described by Wells (1997), stalking is generally due to an obvious or hidden sexual drive or tendency to someone, is following somebody constantly and unity in actions could be defined as molestation or harassment. When the literature is examined, the riskiest group for high prevalence of dating violence was regarded as adolescents and young adults (Stappenbeck & Fromme, 2010). In the studies conducted among high school students, it was seen that the frequency of any kind of exposing dating violence in the last year varied between 15-50% (Foshee, Linder & MacDougall, 2001; Alleyne-Green, Coleman-Cowger & Henry, 2012). In university students, 31.6% of female and 24.4% of male were exposed to physical violence in 2007 (Straus, 2008); in the USA, it was also found that one in every 5 female students and one in every 10 male students were subjected to dating violence in the last year (Vagi, Olsen, Basile, Vivolo-Kantor, 2015). When the frequency of dating violence in the world was examined according to the types of violence; it was reported that between 9% and 40% to physical violence, between 1% and 13% to sexual violence, between 29% and 90% psychological violence were experienced at least once. In the study conducted among adolescents and young people aged between 15 and 24 in Mexico, 75% of the participants stated that they were exposed to verbal-emotional violence, 27% were exposed to sexual violence, 14% to physical violence and 16% were exposed to threatening behaviour (Instituto Mexicano de la Juventud, 2008). In the study of Toplu and Hatipoğlu-Sümer (2011) in Turkey, it was seen that 40,0% of female and 34,7% of male students were subjected to physical dating violence at least once in their lives; and 85,2% of female and 75,6% of male students were subjected to psychological dating violence. It is estimated that in university students' dating relationships, the psychological violence is 80%, physical violence is 20-30% and sexual violence is 10-15%. Although men are more likely to perpetrate sexual violence, both men and women generally perpetrate psychological and physical violence at the same level (Shorey et al, 2012). Evaluating the conducted studies, it could be stated that both genders can be exposed to dating violence among university students, yetthe dating violence rates are higher in women (Dikmen, Özaydın & Yılmaz, 2018; Kepir-Savoly et al., 2014).

In addition to studies aimed at determining the rates of exposure of dating violence both genders among university students, the studies on determining the factors causing dating violence are gaining importance. Studies conducted in this subject; gender roles (patriarchal societies), family structures, socio-cultural norms and values are considered to be the factors that lead to the emergence of dating violence (Karahan & Kul-Uçtu, 2016; Polat, 2016). It is stated that not gaining social and individual values by the individuals increases the likelihood of encountering quite important problems in the personality development process (Dilmaç, 2015). In order to understand the cause of an important problem as the dating violence, in this study the value preferences of individuals were examined on the basis of classifications such as social values, career values, intellectual values, spirituality values, materialistic values, values of human dignity, romantic values, freedom values and futuwwa (generosity and courage) values (Dilmaç, Arıcak & Cesur 2012). Values are closely related to the feelings, thoughts and behavioural dimensions of people. Most of the social scientists pointed that values have fundamental importance in explaining human behaviour (Kuşdil & Kağıtcıbaşı, 2000). The studies showed that humanitarian values significantly reduced the individuals' negative attitudes and behaviour levels such as aggression and violence; instead, they increased positive attitudes and behaviours such as empathy and democracy (Çokdolu, 2013; Sağkal, 2011).

When the other factors that cause the emergence of dating violence among university students were examined, the causes were seen as problems in family relations (divorce, abuse, etc.), exposure of abuse and violence in the past, trauma, psychological problems, problems of adaptation to university life, use of alcohol and substance, lack of coping with rejection feelings and despair in romantic relationships, continuous anger and lack of emotion regulation skills (Atak, 2011; Avşar-Baldan & Akış, 2017; Dikmen et al, 2018; Fidan & Yeşil, 2018; Öngün & Ünsal, 2018). Among the factors listed above, in this study, especially emotion regulation skills of individuals were examined. Since emotion regulation skills of individuals are regarded as an important and necessary precursor in order to solve problems and managing anxiety and difficulties (Gross, 1998; Thompson, 1991), emotion regulation skills were examined in the context of the use of cognitive processes in this study. In the emotion regulation through cognitive processes, individuals develop cognitive strategies related to any situation before they react and then they respond emotionally through these strategies (Garnefski, Kraaij & Spinhoven, 2001).Examining the studies on cognitive emotion regulation strategies, it was stated that cognitive emotion regulation strategies help individuals to manage their feelings after stressful events (Garnefski et al., 2001; Garnefski & Kraaij, 2006). However, when cognitive emotion regulation strategies were examined; it was seen that they were made up of positive adaptive strategies (acceptance, positive refocusing, refocus on planning, positive reappraisal and putting into perspective) and negative maladaptive strategies (self-blame, rumination, catastrophizing, other-blame) (Garnefski et al., 2001).Therefore, individuals who have low skills in using positive strategies in cognitive emotion regulations can easily show aggressive outbursts/blow-ups (Eisenberg, Fabes, Nyman, Bernzweig, Bernzweig & Pinuelas, 1994). Different studies similarly reported that individuals with low emotional regulation skills exhibit aggressive behaviours when they experience negative emotions, thus there is a positive relationship between aggression and emotion regulation (Bookhaut, Hubbard & Moore, 2018; Cohn, Jakupcak, Seibert, Hildebrandt & Zeichner, 2010; Davidson, Jackson & Kalin, 2000; Gardner & Waadjid, 2018; Hicks, 2018; Sullivan, 2010). In this case, most of the young adults could find themselves in aggressor and victim roles in dating relationships because of their negative cognitive emotion regulation strategies (Wekerle & Wolfe, 1999; Cited in Hatipoğlu, 2010).

Examining some of the short and long term consequences of dating violence especially on young people, these might be substance use, eating and sleep disorders, risky sexual behaviours, unintended pregnancy, fear, anxiety, trauma, suicide, murder, social isolation, embarrassment, guilt and anger (Ackard, Eisenberg & Neumark-Sztainer, 2007). It can be said that dating violence that can be seen in all parts of the society is an important public health problem considering the short and long term physical and psychological consequences (Breiding, Black & Ryan, 2008; Logan & Cole, 2007; Murray, Wester & Paladino, 2008). Considering the prevalence, types, causes and consequences of dating violence, the aim of this study is to determine in what extend gender, age, relationship status, value preferences and cognitive emotion regulation strategies predict the dating violence in the purpose of shedding the light on preventive studies for dating violence in young adults.

2. Method

2.1. Participants

The study group was comprised of 335 university students studying at Trakya University - Faculty of Education in 2017-2018 academic year. 243 of the students (72,5%) were female and 92 of them (27,5%) were male. 134 students (40%) were stated that they had a relationship at that moment, 201 of them (60%) stated that they did not have a relationship. The age of participants varied between 18-25 and the average of age was 20.64 (SD = 1.60).

2.2. Data Collection

Attitudes towards Dating Violence Scale: Developed by Terzioğlu, Gönenç, Özdemir, Güvenç, Kök, Sezer Yılmaz and Hiçyılmaz Demirtaş (2016), Attitudes towards Dating Violence Scale is a 28-item Likert type scale developed for determining individuals' attitudes towards violence in their dating relationships. It has 5 sub-dimension as general violence, physical violence, economic violence, emotional violence and sexual violence. Cashier Meyer Olkin (KMO) value was 0.795 and Bartlett Sphericity test was statistically significant in terms of variables (p <0.001). Cronbach Alpha internal consistency coefficient calculated for determining reliability was 0.91, and Cronbach Alpha internal consistency coefficient of subscales were calculated as 0.72-0.85. In the test-retest reliability test, the difference between the two measurement scores was statistically insignificant (p>0.05).

Cognitive Emotion Regulation Questionnaire (CERQ): The scale is a 36-item Likert type measurement tool developed by Garnefski, Kraaij and Spinhoven (2001). In the original form of the scale, Cronbach Alpha coefficient was determined between .67 and .81. The scale has nine sub-dimensions such "self-blame", "rumination", "acceptance", "positive refocusing", "refocus on planning", "positive reappraisal" and "putting into perspective", "catastrophizing", "other-blame". The Turkish adaptation, validity and reliability of the scale were conducted by Onat and Otrar (2010) and the Cronbach Alpha coefficient was found as α=,784 and test-retest reliability coefficient was "r=.1,00". Criterion-related validity method was used inthe scope of reliability of the scale. There was a statistically significant relationship between Cognitive Emotion Regulation Questionnaire and Negative Mood Regulation Scale (r=,-572).

Values Scale: It was developed by Dilmaç, Arıcak and Cesur (2012). 39 values falling under nine factors were obtained as a result of the exploratory and confirmatory factor analyses. Explanatory and confirmatory factor analyzes revealed that the scale explained 64.74% of the total variance (KMO = .910, Bartlett's Sphericity = 9133.26, df = 741, p = .000). Factor loadings ranged from .51 to .86. The Cronbach alpha internal consistency coefficients of the Values Scale were calculated on a factor basis. As a result of the analyses, Cronbach alpha values were calculated as .90 for “Social Values,” .80 for “Career Values” .78 for “Intellectual Values,” The values were found as .81 for “Spirituality,” .78 for “Materialistic Values,” .61 for “Human Dignity,” .66 for “Romantic Values,” .65 for “Freedom,” and .63 for “Futuwwa (Generosity and Courage).”

2.3. Analysis

In the data analysis depending on the variables in the study, Pearson Product Moment Correlation Coefficient and Hierarchical Regression Analysis were completed by using SPSS 18.0 program.

3.Results

In this section of the study, statistical analysis of the obtained data and results were discussed according to the scope of the study.

3.1. Prediction of Gender, Age, Relationship Status and Values to Dating Violence

The correlation analysis was conducted to determine the relationships between dating violence and gender, age and relationship status variables and the findings were shown in Table 1.

Table 1. Correlations Between Dating Violence and Gender, Age, Relationship Status and Values

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1.Gender	.73	.45	1												
2. Age	20.64	1.60	-.22**	1											
3.Relationship Status	.40	.49	.05	.16**	1										
4.Social Values	8.23	.67	.13*	.08	.07	1									
5.Career Values	7.50	1.07	.12*	.00	-.06	.50**	1								
6.Intellectual Values	8.00	.80	.12*	.11	.02	.48**	.61**	1							
7.Spirituality	6.54	2.14	.21**	.02	.02	.35**	.36**	.37**	1						
8.Material Values	6.14	2.00	.02	.13*	-.02	.11*	.41**	.29**	.22**	1					
9.Human Dignity	7.84	1.27	.02	.07	-.06	.38**	.39**	.40**	.58**	.24**	1				
10. Romantic Values	6.58	1.75	-.08	.04	.30**	.25**	.23**	.23**	.12*	.21**	.19**	1			
11. Freedom	8.18	.77	-.01	-.00	-.04	.41**	.44**	.37**	.11*	.11*	.18**	.24**	1		
12. Futuwwa	7.45	1.35	-.05	-.01	-.04	.41**	.39**	.47**	.31**	.10	.28**	.18**	.34**	1	
13. Dating Violence	4.57	.31	.31**	-.19**	.05	.12*	.05	.07	-.12*	-.05	-.17**	-.10	.13*	-.13*	1

*Note:** p< .05.** p< .01. Gender: Female=1, Male=0; Relationship Status: Yes=1, No=0

As seen in Table 1, positive significant relationships were found between gender and social values (r=.13, p< .05), career values (r=.12, p< .05), intellectual values (r=.12, p< .05) and spirituality values (r=21. , p< .01). Accordingly, women put more emphasis on aforementioned values. Besides, positive significant relationship was found between gender and dating violence (r=.31, p<.01). That is to say, women do not support dating violence compared to men.

Positive significant relationships were found between age and materialistic values (r=.13, p< .05); whereas, negative significant relationships were found between age and dating violence (r=-.19, p< .05). Correspondingly, the more age increases, the more weight is given to materialistic values. In addition, as age increases, attitudes towards supporting dating violence decreases with attachment.

There was a positive significant relationship between relationship status and romantic values (r=.30, p< .01). According to this result, the participants who are in a relationship consider romantic values more important. No significant relationship was found between the relationship status and dating violence (r=.05, p> .05). Consequently, it was found that there were positive significant correlations between dating violence and social values (r=.12, p< .05) and freedom (r= .13, p<.05); negative significant correlations between dating violence and spirituality (r = -.12, p <.05), dating violence and human dignity (r= -.17, p <.05) and futuwwa values (r= -.13, p< .05). In the next phase, in order to analyze the effects of values and cognitive emotion regulation on dating violence, because of the effect of gender, age, relationship status were wanted to control, hierarchical regression analysis was applied (Green & Salkind, 2005) and the findings were shown in Table 2.

Table 2. Hierarchical Regression Analysis Results Related to Prediction of Gender, Age, Relationship Status and Values to Dating Violence

Model	Predictive Variable	B	SH B	B	R^2	ΔR^2
1	(Constant)	4.95	0.22		11***	11***
	Gender	.19	0.04	.28***		
	Age	-.03	0.01	-.13*		
	Relationship Status	.03	0.03	.05		
2	(Constant)	4.33	0.29		24***	13***
	Gender	.17	0.04	.24***		
	Age	-.03	0.01	-.16**		
	Relationship Status	.04	0.03	.07		
	Social Values	.09	0.03	.19**		
	Career Values	.00	0.02	-.02		
	Intellectual Values	.06	0.03	.15*		
	Spirituality	-.02	0.01	-.13*		
	Materialistic Values	.00	0.01	.01		
	Human Dignity	-.04	0.02	-.16*		
	Romantic Values	-.02	0.01	-.13*		
	Freedom	.06	0.02	.15*		
	Futuwwa	-.05	0.01	-.20**		

Note: Gender: Female=1, Male=0; Relationship Status: Yes=1, No=0
* p < .05. ** p < .01. *** p < .001

As seen in Table 2, gender, age and relationship status jointly explained 11% of dating violence [F(3, 331) = 13.97, p< .001]. However, only gender (β = 28, p <.001) and age (β = -.13, p <.05) were significant predictors. Value scale factors were entered into the analysis in the second block. The total explained variance rate reached to 24% [F (12, 322) = 8.50, p< .001].

Accordingly, when gender, age and relationship status were checked, value preferences explained 13% of dating violence[F(9, 322) = 6.05, p< .001]. Among the values, social values (β = .19, p <.01), intellectual values (β = .15, p <.05) and freedom values (β = .15, p <.05) positively predicted the dating violence; however, spirituality (β = -.13, p <.05), human dignity (β = -.16, p <.05), romantic values (β = -.13, p <.05) and futuwwa values (β = -.20, p <.01) negatively predicated the dating violence.

3.2. Prediction of Gender, Age, Relationship Status and Cognitive Emotion Regulation Strategies to Dating Violence

The correlation analysis was conducted to determine the relationships between dating violence and gender, age, relationship status and cognitive emotion regulation strategies. The findings were shown in Table 3.

Table 3. Correlations Between Dating Violence and Gender, Age, Relationship Status and Cognitive Emotion Regulation

Variables	**M**	**SS**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
1. Gender	.73	.45	1												
2. Age	20.64	1.60	-.22**	1											
3.Relationship Status	.40	.49	.05	.16**	1										
4. Self-blame	2.95	.60	-.12*	-.09	-.12*	1									
5. Acceptance	3.00	.73	-.10	-.04	-.19**	.39**	1								
6. Rumination	3.80	.72	.15**	-.07	.01	.30**	.15**	1							
7.Positive Refocusing	3.11	.72	-.02	.14*	-.03	-.15**	.03	-.10	1						
8.Refocus on Planning	3.99	.64	-.05	.05	.08	-.09	-.10	.23**	.32**	1					
9.Positive Reappraisal	3.74	.73	-.03	.05	.03	-.18**	-.05	.11	.41**	.59**	1				
10.Putting into Perspective	3.27	.71	.04	-.06	-.03	.09	.21**	.11	.35**	.16**	.36**	1			
11.Catastrophi sing	2.36	.84	-.18**	.14*	-.05	.35**	.24**	.18**	-.15**	-.25**	-.32**	.12*	1		
12.Other-Blame	2.70	.66	-.04	.13*	-.06	.08	.10	.16**	.02	-.09	-.04	.10	.36**	1	
13.Dating Violence	4.57	.31	.31**	-.19**	.05	-.04	-.06	.12*	-.02	.12*	.12*	.05	-.26**	-.14*	1

Note: *p< .05.** p< .01. Gender: Female=1, Male=0; Relationship Status: Yes=1, No=0

As seen in Table 3, there were positive significant correlations between dating violence and rumination (r=.12, p<.05), refocus on planning (r=.12, p<.05) and positive reappraisal (r=.12, p<.05). It was found that there were negative significant correlations between dating violence and catastrophizing (r= -.26, p<.01) and other-blame (r= -.14, p<.05)

In the next phase, hierarchical regression analysis was applied to determine whether cognitive emotion regulation strategies predict dating violence, and the findings were shown in Table 4.

Table 4. Hierarchical Regression Analysis Results Related to Prediction of Cognitive Emotion Regulation Strategies to Dating Violence

Model	Predictive Variable	B	SH B	β	R^2	ΔR^2
1	(Constant)	4.95	0.22		.11***	.11***
	Gender	.19	0.04	.28***		
	Age	-.03	0.01	-.13*		
	Relationship Status	.03	0.03	.05		
2	(Constant)	4.78	0.27		.19***	.07**
	Gender	.17	0.04	.25***		
	Age	-.02	0.01	-.10		
	Relationship Status	.02	0.03	.03		
	Self-blame	.02	0.03	.05		
	Acceptance	.00	0.02	.01		
	Rumination	.04	0.03	.08		
	Positive Refocusing	-.01	0.03	-.03		
	Refocus on Planning	.02	0.03	.05		
	Positive Appraisal	.03	0.03	.08		
	Putting into Perspective	-.03	0.03	-.08		
	Catastrophizing	-.07	0.02	-.18**		
	Other-blame	-.02	0.03	-.05		

Not: Gender: Female=1, Male=0; Relationship Status: Yes=1, No=0
* $p < .05$. ** $p < .01$. *** $p < .001$

As seen in Table 4, gender, age and relationship status and cognitive emotion regulation jointly explained 19% of dating violence [$F(12, 322) = 5.83$, $p< .001$]. When gender, age and relationship status were controlled, cognitive emotion regulation explained 7% of dating violence [$F(9, 322) = 2.88$, $p< .01$]. Only "catastrophizing" had a significant effect among the dimensions of cognitive emotion regulation ($\beta = -.18$, $p< .01$). Accordingly, the more catastrophizing increases, the more attitudes towards supporting dating violence increases.

4. Discussion

According to the findings obtained from research, it was found that there were positive significant relationships between gender and social values, career values, intellectual values, spirituality and dating violence. It is possible to come across similar findings when examining the studies oriented gender and violence relationship in the literatüre (Bharat, Jain, Gupta & Bharat, 2018; Baş & Hamarta, 2015; Karabacak & Çetinkaya, 2015; Terzioğlu et al, 2016; Vagi et al., 2015). It is thought that this stems from culture, upbringing and gender roles in society. According to the result, it can be said that women give more importance to the values than men and they do not support dating violence. Also, gender and age variables are significant predictors of dating violence. Social values, intellectual values and freedom positively predict dating violence. Spirituality, human dignity, romantic values and futuwwa negatively predict dating violence. The more increasing the importance given to the social values, intellectual values and freedom values increases the attitudes that not supporting dating violence. On the other hand, increasing the importance given to spirituality, human dignity, romantic values and futuwwa decreases the attitudes supporting dating violence. It was found that there was a positive significant relationship between age and materialistic values and negative significant relationship between age and dating violence. Belk (1985) associated materialism with personal features such as possessing, stinginess, jealousness (envying) (Ersoy-Quadır, 2012). The studies presented the relationship of materialism and age generally stated that the more age increases, the more materialism level increases as well (Chan, 2013; Goldberg, Gorn, Peracchio & Bamossy, 2003). By reason of having a dating relationship means social acceptance, high self-confidence and identity, having a dating relationship for the individuals who have materialistic values may stand for happiness, success and socialising. As the age increases, the violence in the relationship decreases with sense of possessiveness, however, the results are more severe (Munoz-Rivaz, Grana & O'Leary, 2009; Wekerle, 1999). A positive significant relationship was found between relationship status and romantic values; whereas, there was no significant relationship between relationship status and dating violence. In terms of value preferences, especially romantic values (love, spouse/partner, delight/ pleasure) is associated with dating. According to Sternberg (1986), romantic love is a combination of components of intimacy and passion. According to this, it is thought that establishing a love relationship of the individual in a sense brings together the loyalty to the partner, passion and togetherness. It was found that there were positive significant relationships between dating violence and social values and freedom; and negative significant relationships between dating violence and spirituality, human dignity and futuwwa values. Social values (such as love, respect, tolerance, freedom, goodness, righteousness and responsibility) and freedom values are an important element that supports universal values (basic rights and freedoms) and enables them to be accepted via internalizing them by individuals who make up societies (Göz, 2014). As these behaviours described as goodness increase, dating violence is not supported. On the other hand, as the spirituality, human dignity (honour, pride, justice, fairness) and futuwwa values (generosity and courage) increase, the attitudes that supporting dating violence decrease. It can be said that human dignity is a self-value that differentiate human from other living creatures and the base of human rights.

Another finding is cognitive emotion regulation strategies are associated with dating violence. Positive significant relationships were found between dating violence and the sub-dimensions of emotion regulations as rumination, refocus on planning and positive reappraisal. A negative significant relationship was found between dating violence and sub-dimensions as catastrophizing and other-blame. In other words, emotion regulation strategies such as catastrophizing which is focusing on terrifying aspects of events in the past and other-blame increases, dating violence increases as well; in contrast, as refocus on planning, which is systematic thinking on what steps should be taken to cope with an incident, and positive reappraisal, which is giving a positive meaning to the incident in terms of self-improvement increase, dating violence decreases. One of the sub-dimensions of cognitive emotion regulation, catastrophizing is significant predictors of dating violence. The studies in the literature supported that there is a relationship between increasing difficulties with emotion regulation and increasing aggressiveness (Norstrom & Pape, 2010; Sullivan et al, 2010; Tager, Good & Brammer, 2010). Within the scope of inadequate emotion regulation, behaviour emerged as a reaction of emotion is generally experienced inseparably with the emotion (Gratz & Tull, 2010) and the individual cannot use the emotion regulation strategies that are necessary to control the behaviours. For instance, an individual who has controlled the intense anger, otherwise, can start to shout out to the person who would like to have a good relationship. Other-blame is often explained in relation to the way expressing anger (Conway, 2005, Martin & Dahlen, 2005). Perpetual thinking over negative emotions and thoughts in negative experiences prevents effective problem solving skills (Nolen-Hoeksema, 2000). Rey & Extremera (2012) was found that there was a positive relationship between impulsive aggression expressions of young adults and other-blame and catastrophizing from emotion regulation strategies; however, there was an inverse significant relationship between impulsive aggression expressions of young adults and refocus on planning and positive reappraisal. Particularly, the non-adaptive cognitive emotion regulation strategies such as other-blame and catastrophizing are significant predictors on impulsive aggression of young adults. These findings are in parallel with the results of the study. The relationship between inadequate emotion regulation and aggression is not limited to intense anger experiences. Emotions such as unhappiness (Sprott & Doob, 2000), fear (Bitler, Linnoila, & George, 1994) and general negative affectivity (Caprara, Barbaranelli, Pastorelli, Cermak & Rosza, 2001) are associated with aggression. For sure, negative emotions can be effectively regulated and anyone who experiences negative emotions does not exhibit aggressive behaviours (Roberton, Daffem & Bucks, 2012). In addition, if the individuals have difficulties to regulate an emotion circumstance, if they live negative or uncomfortable, generally they remain with a hard to endure emotion experience. In this case, they may be more likely to behave aggressively to put right, abolish or prevent the emotional state.

Based on the results of the research, it seems that gender, age, cognitive emotion regulation strategies and value preferences are significant predictors of dating violence. Future studies should be included in universities in order to enable the youth to develop safe and healthy relationships. For this reason, it is recommended that preventive studies should be conducted to improve values education and emotion regulation skills in studies aiming at preventing dating violence among young adults.

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Investigation of Prejudice against Obesity in Students of Sports Sciences

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ABSTRACT

The aim of this study is to reveal prejudice against obesity in students who study sports sciences at the university level in Turkey in terms of different variables. The sample group of the study included 387 randomly chosen students of sports sciences from Bingöl University, Fırat University, Sütçü İmam University and Düzce University. To collect data from the sample, the "Obesity Prejudice Scale" was used. For the data collected, the normality test was conducted to determine whether the "Obesity Prejudice Scale" provided the normality assumption. "Independent Samples t-test", a parametric test, was conducted to evaluate the level of differentiation in gender, an independent variable. To determine differentiation in variables of grade, university and monthly income, "ANOVA" tests were conducted. The level of statistical significance (α error level) was regarded as $p<0.05$. It was determined that the sports sciences students' perceptions of obesity prejudice demonstrated statistically significant differences in terms of the universities ($p<0.05$). It was also determined that the obesity prejudice of the students did not differ significantly according to their gender, grade and monthly income ($p>0.05$). In conclusion, it seems impossible to eliminate prejudice against obese individuals, just like any other social problem. Therefore, it was concluded that the problems experienced by obese individuals are not their choices and should be qualified as diseases. Decision-makers can provide education in helping obese individuals by conducting awareness studies and developing social responsibility projects. Obesity can be averted by increasing studies on especially balanced nutrition and physical activity.

Keywords:
Obesity, prejudice, sports sciences, student, university

1. Introduction

Obesity, which was defined by the World Health Organization in 1997 as an "*epidemic*" spreading throughout the world, seriously threatens public health based on increasing diabetes, hypertension and coronary heart disease. Obesity, which is called as "*fatness*" colloquially, is viewed as a complex and multi-factored disease characterized by chronic changes that occur as excess amounts of fat collects in the body. Obesity and excess body weight constitute problems that create growing loads on national resources and cause financial burdens. However, these conditions can be greatly avoided by appropriate lifestyle changes. These usually occur due to the combination of unhealthy nutritional behaviors and sedentary lifestyles. Storing excess energy as body fat and inconsistent energy intake and use create unbalances. In obese individuals, increases in fat are observed under the skin and around internal organs, and these increases reach levels that can increase health risks (Demiralp, 2006; Yıldırım et al., 2008). Obesity has a global prevalence due to the increase in urbanization and altered nutritional habits. At the same time, it is defined as a disease that depends on genetic, behavioral and environmental factors (Akbaş, 2002).

Recently, the diseases that developed due to obesity and result in deaths has indicated that more effective measures should be taken for obesity. The number of programs in the media and news published on fighting

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against obesity is rapidly increasing. However, the number of obese individuals in society-wide continues to increase. The fact that obesity is regarded as a disease in adults and practices are rather conducted for adults, as well as the precautions against obesity, causes the children at school ages to be kept in the background on this subject (Doğan et al., 2015)

Countries fight against obesity by taking various precautions. These include educational and informative campaigns to raise the awareness of consumers, regulations, taxes and incentives implemented to limit the advertisements of unhealthy food and nutritional programs conducted in schools (OECD, 2014).

With the incentive of the World Health Organization, especially in recent years, countries have started to use financial tools more intensely. These financial tools cover taxing of products that are believed to be unhealthy or cause obesity and implementing subvention. Especially the food and drinks with high calorie, low nutritional value and high contents of sugar, fat and salt are believed to result in excess calories and cause obesity (Malik et al., 2006). Governments have an important role to play in the fight against obesity. Governments can increase the awareness of the society by taking measures, especially about healthy nutrition and exercise. These measures can include encouraging/informative public services and advertisements. However, the accomplishment of these measures depends partly on socioeconomic and demographic factors; therefore, the policies implemented solitarily in the past turned inefficient in the fight against obesity (Bonnet, 2013).

Although obesity was regarded as a disease in adults in the past, in recent years, it has increased in prevalence in children at the school age. Obesity leads to distortions in body, individualism, image and perception in children. Intensely, it causes children to be viewed as lazy, indifferent, low in self-confidence and asocial. The most significant reasons for the increase of obesity in children at the school age are unhealthy nutrition and irregular nutritional habits. Children, who spent at least 8 hours a day at school, need food consumption. Recently, previously built cafeterias have been removed to increase the number of classrooms and nutrition is left to canteens in schools that provide full-day education. Most of the students have their breakfast and lunch at the canteens with foods, such as French fries, hamburgers, toasts, biscuits and candies, and every type of fizzy drink. Thus, fruit and vegetable consumption of children decreases and unhealthy eating habits are formed. Cafeteria services are conducted by tender contracts and usually practiced by non-professional personnel. Reasons, such as insufficient care in kitchen hygiene, repetition of unchanged food material and menu, failure in meeting the expected quality of service, cause children not to prefer the food presented to them and therefore, they avoid meals by eating junk food (Cengiz, 2013). Briefly, insufficient physical activity and insensible nutrition are regarded as significant reasons for the development of obesity. Additionally, numerous reasons, such as environmental, genetic, neurological, physiological, sociocultural and psychological reasons, can lead to obesity interdependently. Risk factors of obesity include education level, gender, age, marriage, number of births and period between births, nutritional habits, smoking and drinking habits, and sociocultural and socioeconomic status. In this study, it was aimed to reveal the prejudice against obesity in students who study sports sciences at the university level in Turkey. Additionally, it is believed that the perceptions of individuals who study sports sciences are rather important, thus, it was also aimed to reveal whether their perceptions differ in terms of several variables. Overall, it is believed that the study has an importance in terms of revealing the perceptions of individuals in terms of prejudices against obese individuals and the concept of obesity, which is regarded as an epidemic disease and one of the most crucial problems of societies in our age. Accordingly, the following research questions were investigated:

1. What are the participants' perceptions towards the prejudice against obesity?
2. Is there any differences in the participants' prejudice against obesity according to gender?
3. Is there any differences in the participants' prejudice against obesity according to grade of education?
4. Is there any differences in the participants' prejudice against obesity according to university of education?
5. Is there any differences in the participants' prejudice against obesity according to income levels?

2. Method

In this study, it was aimed to investigate the concept of prejudice against obesity in university students who studied on the subject of sports. Accordingly, the study was designed as a quantitative research study and the relational survey model was adopted.

2.1. Participants

The sample group of the study included 387 randomly chosen students of sports sciences from Bingöl University (N=78), Fırat University (N=115), Sütçü İmam University (N=108) and Düzce University (N=86). The reason for forming the sample group from these universities is due to the convenience.

2.2. Data Collection Tools

To collect the data from the sample group, the "Obesity Prejudice Scale," which was developed and studied for reliability and validity by Ercan et al. (2015), was used. The scale developed by Ercan et al., (2015) was reported to have a reliability coefficient (Cronbach alpha) of 0.847, which indicates that the scale has high reliability. To investigate the construct validity of the scale, factor analysis was conducted and the items included in the scale were collected in a single factor. In the confirmatory and exploratory factor analyses, it was determined that the scale had a single-factor structure and this single-factor structure explained 44.263% of the total variance. It is sufficient for a newly developed scale to have this rate higher than 30%. The fact that the explained variance is high is an indicator that the related concept or structure is successfully measured at that level. In the confirmatory factor analysis, it was confirmed that the scale had a single factor. All of the results obtained from this analysis ($c^2/sd=2.49$; NNFI=0.92; CFI=0.97; RMSEA=0.08) proved that the scale had a single factor. The reliability analysis of the scale was investigated by the item analysis method. Cronbach alpha and the Spearman-Brown reliability coefficients were determined as 0.845 and 0.838, respectively. These values indicated that the scale had high reliability. As a result of expert opinion, reliability and validity analyses, a total of 27 items were included in the obesity prejudice scale.

2.3. Data Analysis

In this study, according to the quantitative research design, the statistical analyses were conducted by using the SPSS 23 statistics software. For the data obtained from 387 students, the normality test was first conducted to determine whether the "*Obesity Prejudice Scale*" provided a normality assumption. As it is presented in Table 1, it was determined that the skewness and kurtosis values of the "*Obesity Prejudice Scale*" were calculated to be between +1.5 and -1.5. Thus, it was observed that the normality assumption was provided. This is because Tabachnick and Fidell (2007) determined that skewness and kurtosis values between +1.5 and -1.5 can be interpreted as a normal distribution.

Table 1. Normality test results of the obesity prejudice scale

Scale	N	$\bar{X}$	Sd	Skewness	Kurtosis
Obesity Prejudice Scale	387	3.116	0.405	[-0.457; 0.124]	[1.216; 0.247]

Then, frequency and percentage calculations were conducted to reveal the distributions of the sample group according to individual variables. For the independent variables, "Independent samples t-test", one of the parametric tests, was conducted to reveal the differentiation in gender. To determine the differentiation in grade, university and monthly income variables, "ANOVA (F test)", which is one of the parametric tests, was used. The level of statistical significance (α error level) was regarded as $p<0.05$).

3. Results

In this section, the findings obtained from the perceptions of students, who received sports education, were presented according to the aims of the study.

Table 2. Mean scores of the sample group's perceptions in the obesity prejudice scale

No	Items	$\bar{X}$	Sd
1	Obese individuals are selfish.	2.170	1.228
2	Obese individuals have beautiful faces.	3.281	1.060
3	Obese individuals are not aesthetical.	3.074	1.260
4	Obese individuals are cheerful.	3.400	1.044

5	Obese individuals are irresolute.	2.687	1.322
6	Obese individuals are prone to sicknesses.	3.718	1.217
7	Obese individuals are happy.	2.733	1.009
8	Obese individuals do not like eating in society.	2.633	1.138
9	Obese individuals are fainthearted.	2.485	1.120
10	Obese individuals are hospitable.	3.196	0.950
11	Obese individuals are attractive.	2.664	1.099
12	Obese individuals have limited mobility.	3.770	1.207
13	Obese individuals stink of sweat.	3.051	1.228
14	Obese individuals are sympathetic.	3.232	1.039
15	Obese individuals look healthy.	2.330	1.242
16	Obese individuals do not like moving.	3.390	1.180
17	Obese individuals are self-confident.	2.772	1.025
18	Obese individuals have a low quality of life.	3.173	1.225
19	Obese individuals look older than they are.	3.033	1.122
20	Obese individuals have strong social relationships.	2.969	1.030
21	Obese individuals get tired quickly.	4.020	1.020
22	Obese individuals are great listeners.	3.178	0.966
23	Obese individuals are slow in their movements.	3.948	1.039
24	Obese individuals are lazy.	3.416	1.204
25	Obese individuals are good at cooking.	3.188	1.024
26	Obese individuals are not preferred in emotional relationships due to their looks.	3.170	1.170
27	Obese individuals are friendly.	3.439	1.012

In the investigation of the first research questions, as can be seen in Table 2, when the mean scores of the participants' perceptions in the obesity prejudice scale, it was determined that item 23, "*Obese individuals are slow in their movements*", had the highest mean score ($\bar{X}$=3.948). It was also observed that the item with the lowest mean score was item 1, "*Obese individuals are selfish.*" ($\bar{X}$=2.170).

Table 3. T-test results of the sample group according to gender

Scale	**Gender**	**N**	$\bar{X}$	**Sd**	**t-value**	**p-value**
Obesity Prejudice Scale	Male	253	3.124	0.373	-0.582	0.561
	Female	134	3.099	0.461		

*p>0.05

In the investigation of the second research question, as can be seen in Table 3, it was determined that the perceptions of the students, who received sports education, on prejudice against obesity did not differ significantly according to their gender (p>0.05). When the mean scores were evaluated, it was observed that male students had higher levels of perceptions of prejudice against obesity compared to female students (Table 3).

Table 4. ANOVA analysis results of the sample group according to their grade levels of education

Scale	**Grade**	**N**	$\bar{X}$	**Sd**	**F**	**p-value**
Obesity Prejudice Scale	(a) 1st Grade	110	3.051	0.423	1.432	0.233
	(b) 2nd Grade	121	3.153	0.396		
	(c) 3rd Grade	116	3.141	0.385		
	(d) 4th Grade	40	3.104	0.430		

*p>0.05

In the investigation of the third research question, as can be seen in Table 4, It was observed that the prejudice perceptions of students, who received sports education, against obesity did not differ according to their grade level of education (p>0.05). When the mean scores were evaluated, it was determined that the students who received education at the 2nd grade had higher levels of prejudice against obesity compared to students who studied at other grade levels (Table 4).

Table 5. ANOVA analysis results of the sample group according to the universities where they studied

Scale	University	N	$\overline{X}$	Sd	F	p-value	LSD
Obesity Prejudice Scale	(a) Bingöl University	78	3.169	0.354	5.038	**0.002***	
	(b) Fırat University	115	3.173	0.389			a, c
	(c) Sütçü İmam University	108	2.990	0.459			b, c
	(d) Düzce University	86	3.149	0.367			c, d

*p<0.05

In the investigation of the fourth research question, as can be seen in Table 5, it was determined that the perceptions of the students, who received sports education, constituted statistically significant differences according to the universities where they studied (p<0.05). When the mean scores were evaluated, it was determined that the students of Sütçü İmam University had lower perceptions of prejudice against obesity compared to the students of other universities (Table 5).

Table 6. ANOVA analysis results of the sample group according to the monthly income of the family

Scale	Monthly Income	N	$\overline{X}$	Sd	F	p-value
Obesity Prejudice Scale	(a) 0-1500 TL	117	3.062	0.406	2.238	0.083
	(b) 1501-3000 TL	176	3.105	0.410		
	(c) 3001-5000 TL	56	3.191	0.413		
	(d) 5001 TL and above	38	3.220	0.339		

*p>0.05

In the investigation of the fifth research question, as can be seen in Table 6, when the perceptions of students, who received sports education, on prejudice against obesity were evaluated , it was observed that the perceptions did not differ significantly according to the monthly incomes of the families (p>0.05).

4. Discussion and Conclusion.

(In the "*Global Action Plan for the Prevention and Control of Noncommunicable diseases*" of the World Health Organization, obesity, mentioned as a disease that needs to be stopped, is emphasized in terms of psychological and social problems it causes, which is also supported by scientific studies conducted in the last decade, and it is noted that obesity paves the way for psychological problems such as prejudice, stigmatization and discrimination based on body weight (Puhl et al., 2013; Djalalinia et al., 2015).

When the perceptions of the sample group towards prejudice against obesity were compared according to gender, it was determined that there were no statistically significant differences (Table 3). This finding is believed to be due to the fact that the prejudices of female and male students against obesity are at the same level. This result is also supported by the findings of Uluöz (2016), Karaçay et al. (2019) and Altun (2015). In the study conducted by Sikorski et al. (2013), it was reported that females usually had greater fears of gaining weight in societies and they had a more dominant fear of losing their beauty and attractiveness in case they gained weight compared to males. Similarly, Hansson and Rasmussen (2014) reported that females had more negative attitudes towards overweight and obese individuals compared to males while females complained more about their body weight regardless of their status of body weight compared to males.

It was observed that the prejudice perceptions of students, who received sports education, against obesity did not differ according to their grade level of education (Table 4). In the study conducted by Altun (2015), similar results were reported. Contrary to these results, in the study conducted by Uluöz (2016), it was determined that the variable of grade affected the levels of prejudice against obese individuals. It was discovered that the students studying in the 4th grade had higher levels of prejudice against obese individuals.

It was observed that the perceptions of prejudice against obesity in the sample group constituted a statistically significant difference in terms of the universities where the studied. The students of Sütçü İmam University had lower perceptions of prejudice against obesity compared to the students of other universities (Table 5). The reason for this significant difference was interpreted to be due to regional differences, education programs in which the students receive their sports education and nutritional habits.

When the sample group's perceptions of prejudice against obesity were evaluated, it was determined that there were no statistically significant differences according to the monthly income levels of families (Table 6). In this study, it was assumed that obesity was not related to the income level of the family.

Just as like any other social problem, it is not possible to eliminate attitudes towards obese individuals. According to the results obtained in this study, the main conclusion of the study is that the problems experienced by obese individuals are not their choices and should be qualified as diseases. Within this scope, this study recommends to increase public service broadcasts in societies. It is also suggested that decision-makers provide education in helping obese individuals by conducting awareness studies and developing social responsibility projects. Obesity can be averted by increasing studies on especially balanced nutrition and physical activity. It should not be forgotten that education is an invaluable tool of prevention and regulations should be implemented to include children at the school age should in activities of raising awareness and to avoid keeping them in the background.

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Examination of Psychological Symptom Levels of Physical Education Teachers and Teachers in Different Branches

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ABSTRACT

Purpose of this research is to determine differences between teachers' branches in terms of mental health status according to whether they do regular sports or not. Research was carried out using descriptive scanning model. Research population consist of schools in Turkey affiliated to the Ministry of Education, active working teachers in 2018-2019 education term. The sample consists of teachers working in Şanlıurfa and Mersin. 461 teachers were participated in the study. Easy sampling method was preferred as sampling method. Revised Symptoms Checklist (SCL-90-R) was used to measure psychological symptoms and distress developed by Derogatis. Descriptive statistics and independent samples t test was used to analyze differences between two groups. In terms of branches of teachers, there was a significant difference in all other sub-scales and GSI except HOS sub-scale. It was found that there was a significant difference in favor of teachers doing regular sports in all sub-scales according to which teachers did regular sports regardless of their branch. There was a significant difference between some sub-scales and GSI of other teachers who participated regular sports. There was no significant difference in all sub-scales between all teachers who did regular sports. As a result, GSI score of each participant who declared that they participate in regular sports was lower than those who did not. There were no significant differences in mental health status of the teachers. The difference between individuals was found to be significant compared to whether or not to do regular sports. Sub-scales scores of teachers who participated in regular sports were found to be low.

Keywords:
Teachers, Psychological Symptoms, SCL-90-R

1. Introduction

Exercise has been advocated by health scientists and doctors for many years to prevent physical health problems such as obesity and hypertension. Its effectiveness as a therapeutic measure after the occurrence of certain diseases has also been abolished. The last decade has seen the notion that exercise can also prevent the onset of emotional and psychological problems. In addition, many health professionals now believe that exercise is an effective treatment for mental health problems. For example, a survey conducted by approximately 2000 primary care physicians in 1983 found that 85 percent regularly recommended exercise in the treatment of depression (Morgan and Goldston, 2013).

Positive effects of sport and exercise on health as well as its' benefits for mental health are now well known (Raglin JS, Morgan WP, O'Connor PJ, 1991). Individual state of doing sport or exercise is inversely

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proportional to level of stress, anxiety and depression;and also it is directly propotional to self-esteem and self-perception. These positive effects of exercise have sometimes made it a part of treatment of mental illnesses. (Karakaya, Coşkun, & Ağaoğlu, 2006). In 2005, the World Health Organization included sports as one of the measures to protect mental health. Studies on effects of sport activities on mental health are generally evaluated from four perspectives. Mood, fear, depression and self-functions (Ersan, Dogan and Dogan, 2007). Massive studies conducted for many years have investigated effects of sport and exercise on individuals' mental health. It was determined that exercising mild to moderate intensity and maintaining exercise about 20-30 minutes had significant effects on reducing anxiety and depression (Raglin and Morgan, 1990). The researches has shown that exercise not only reduces level of depression but also provides protection from depression. In addition, the first review of the 26-year literature review on the protection effects of sports on mental health showed that even dealing with tasks requiring mild physical activity, such as walking or gardening about twenty-thirty minutes a day for all age groups can prevent depression (Mammen and Faulkner, 2013).

The US National Institute of Mental Health considers exercise to be a valid treatment for anxiety and depression and recommends it as an alternative to standard medication (Hastürk and Şenışık, 2011). It was stated that those who exercise are more extroverted and emotionally balanced than those who do not (Tiryaki, 2000). Individuals who participate in skill and physical activity programs increased social, family, academic achievement and self-esteem scores (Aşçı, Gökmen and Öner, 1993). Athletes' athletic competence and self-esteem scores were found to be significantly higher than non-athletes (Yegül, 1999).

Throughout the history of psychology, a variety of methods have been developed to determine level of psychological disorders that may occur in individuals. Various tests are used to determine psychological disorders in Turkey and all over the world. One of these tests is is the Symptoms Check List-90 (SCL-90; and SCL-90-R). It is an advantage for fast data collection especially in field studies and in clinical setting. This test is a multidimensional list for assessment of psychopathology and it has been reported to be highly compatible with Minnesota Multidimensional Personality Inventory (MMPI) (Askin et al.,1995). This test has been used in a wide range of application areas such as education, health and forensic environment. In literature studies, although there are many researches about benefits of sports to mental health, few studies have been found by using Symptoms Check List (SCL-90-R) in sports environment.

Considering irrefutable effects of sports and physical activity on individuals' mental health, purpose of the research is to determine mental health status of physical education teachers who are intertwined with sports and exercise almost every day compared to other branch teachers, and also to determine whether there is a significant difference in terms of mental health status according to whether they do regular sports between do regular sports or not. Taking these measurements with SCL-90-R in accordance with the purpose of the study will allow us to reach new data on an area and subject that has not been studied much in literature and to reach new information about effects of sports on teachers' mental health status.

2. Method

The research population consist of the teachers in Turkey affiliated to the Ministry of Education who were actively working during the 2018-2019 Education term. Also the sample consists of teachers working in Şanlıurfa and Mersin. A total of 461 teachers, 164 males, 71 females (n = 235) physical education teachers, 139 males, 87 females (n = 226) teachers in different branches, were participated in the study. Easy sampling method was preferred as sampling method.

2.1. Data Collection

Revised Symptoms Checklist (SCL-90-R) was used in the study. Symptoms Checklist is a 90-item personal symptom inventory which was used to evaluate psychological symptoms and psychological distress developed by L. R. Derogatis in the 1970s (Derogatis and Unger, 2010). Turkish version of SCL-90-R was adapted by Dağ (1991) that was used in this sudy. The list includes “not at all” , “a little bit”, “moderately”, "quite a bit", "extremely" choices for all items. Scoring is done by giving zero to four points for each item (Dağ, 1991). The test is a system that has been approved in a wide range of clinical subjects (Croft, 1999). SCL-90-R evaluates psychological disorders in terms of ten sub-scales and three summary scores which are called global scores (Derogatis and Unger, 2010).

1. Somatization (SOM): This 12-item sub-scale reflects problems associated with potential disorders of stomach, vascular, heart, excretory, respiratory and other systems.

2. Obsessive-compulsive(OBS): This sub-scale, which has a total of ten items, indicates ideas that are undesirable but persistent and irresistible.

3. Interpersonal sensitivity(INT): This sub-scale contains nine-item. Negative aspects of this sub-scale represent inferiority, introversion, personal inadequacy. Pozitive aspects of this scale represent undesirable impulsive behaviors and extroversion. This sub-scale also consists of interpersonal relationship conflicts, interaction and communication problems.

4. Depression (DEP): Contains 13 items. This scale indicates negatory and dysfunctional affective states including somatic symptoms, such as loneliness, withdrawal symptoms, mood swings, uncertainty, hopelessness, suicidal ideation and helplessness.

5. Anxiety (ANX): Contains 10 items. These items indicates with clinical anxiety, such as nervousness, chronic worry (neurosis), tension, panic fear and trembling.

6. Hostility (HOS): Contains 6 items. This sub-scale measures feelings, beliefs, thoughts and actions related to state of anger such as violence, aggression, rage, hate, irritability, psychopathy tendencies, lack of empathy.

7. Phobic Anxiety (PHOB): Contains 7 items. This sub-scale indicates a constant fear response of other places, other people (social phobia), events or objects which is irrational and unrealistic.

8. Paranoid Ideation (PAR): Contains 6 items. This sub-scale evaluates disordered behaviors, such as narcissist, grandiosity, suspicious behaviors, confrontational behavior, closedness, oppositional, nonconforming tendencies and disobedience. These personality traits are frequently related with violence, criminal ideation and aggression. Criminal individuals score easily high level on this scale.

9. Psychoticism (PSY): Contains 10 items. This sub-scale evaluates psychosis and psychopathic characteristics such as lack of empathy, aggression, withdrawal symptoms, isolation, alienation, hallucinations, delusions, schizoid lifestyle, first-rank schizophrenia symptoms and thought broadcasting including absence of meaningful relationship with others. Criminal individuals score easily high level on this scale.

10. Additional items (It isn't a scale): Contains 7 items. These items address disorders in sleep and nutrition patterns and contribute to global scores of the checklist (Benk, 2006).

Moreover the scale has 3 general indicators. These are summary or global indexes which evaluates by SCL-90-R

Global Severity Index (GSI): Mean score of 90 items ranging between 0.00 and 4.00 in the scale.
Positive Symptom Total (PST): Number of items with scores above zero.
Positive Symptom Distress Index (PSDI): Mean score of the items with scores above zero.

First adaptation study was conducted in Turkey with 122 university students in 1987. Invariance coefficients of the Pearson correlation technique were 0.82 for SOM., 0.84 for OBS., 0.79 for INT., 0.78 for DEP., 0.73 for ANX., 0.79 for HOS., 0.78 for PHOB., 0.63 for PAR., 0.73 for PSY. and 0.77 for additional scales (Kılıç, 1987).

2.2. Data Analysis

The research was carried out using descriptive scanning model. Statistics of the data were analyzed with SPSS 17.0 program. Participants were randomly selected from volunteer teachers working in schools in Şanlıurfa and Mersin. Participants at school were informed by face-to-face the scale was applied to participants after informing face to face at schools. In the analysis of the research data, descriptive statistics were used and independent samples t-test was used to analyze differences between two groups.

3. Results

Table 1. Frequency Distribution of Participants

		Physical Education Teachers		Teachers in Different Branches	
		n	%	n	%
Gender	Female	71	30.2	139	61.6
	Male	164	69.8	87	38.4
	Total	235	100	226	100
Regular Sports Status	Yes	111	39.6	33	14.6
	No	124	60.4	193	84.4
	Total	235	100	226	100
Experience Years in Teaching	1 - 10	120	51.06	128	56.6
	11 - 20	84	35.74	79	34.9
	21 – 30	31	13.19	19	8.4
	31-above	0	0	0	0
	Total	235	100	226	100

Gender, regular sports status experience in teaching status of teachers participated in the study are shown in Table 1.

Table 2. SCL-90-R Sub-scales t-test Results in Terms of Branch of Teachers

	Branch	n	$\bar{x}$	sd	t	p
Somatization	Physical edu.	235	.6408	.44552	3.516	.000*
	Diff. branches	226	.8060	.55920		
Obsessive Compulsive	Physical edu.	235	1.0528	.51576	3.191	.002*
	Diff. branches	226	1.2155	.57849		
Interpersonal Sensitivity	Physical edu.	235	.8506	.56005	3.860	.000*
	Diff. branches	226	1.0728	.67269		
Depression	Physical edu.	235	.9093	.60324	3.591	.000*
	Diff. branches	226	1.1205	.65676		
Anxiety	Physical edu.	235	.5957	.44719	3.013	.003*
	Diff. branches	226	.7385	.56527		
Anger Hostility	Physical edu.	235	.7390	.59474	1.507	.132
	Diff. branches	226	.8245	.62196		
Phobic Anxiety	Physical edu.	235	.3161	.38724	2.902	.004*
	Diff. branches	226	.4355	.49197		
Paranoid Ideation	Physical edu.	235	.9362	.61009	2.416	.016*
	Diff. branches	226	1.0796	.66243		
Psychoticism	Physical edu.	235	.5170	.45174	2.664	.008*
	Diff. branches	226	.6398	.53292		
Additional Scales	Physical edu.	235	.9234	.55693	2.137	.033*
	Diff. branches	226	1.0411	.62192		
Global Severity Index	Physical edu.	235	.7568	.44179	3.556	.000*
	Diff. branches	226	.939	.50547		

Mean scores of SCL-90-R sub-scales and *t*- test analysis results of teachers participated in the study in terms of branch are given in the table. There is no significant difference between two groups in anger-hostility sub-scale (p> .05), but there is a significant difference in all other sub-scales and global severity index (p <.05). Scores in favor of physical education teachers are low

Table 3. SCL-90-R Sub-scales t-test Results in Terms of Regular Sports Status of Teachers

		n	$\bar{x}$	sd	t	p
Somatization	Yes	144	.5023	.37163	6.492	.000*
	No	317	.8215	.53402		
Obsessive Compulsive	Yes	144	.9486	.50300	5.121	.000*
	No	317	1.2161	.55498		
Interpersonal Sensitivity	Yes	144	.7623	.50953	4.651	.000*
	No	317	1.0491	.65514		
Depression	Yes	144	.7511	.51853	6.171	.000*
	No	317	1.1318	.65250		
Anxiety	Yes	144	.4924	.37061	5.018	.000*
	No	317	.7445	.54860		
Anger Hostility	Yes	144	.5995	.50841	4.394	.000*
	No	317	.8633	.63345		
Phobic Anxiety	Yes	144	.2639	.33421	3.648	.000*
	No	317	.4250	.47948		
Paranoid Ideation	Yes	144	.9178	.62641	2.032	.045*
	No	317	1.0468	.64250		
Psychoticism	Yes	144	.4236	.40469	4.573	.000*
	No	317	.6470	.51873		
Additional Scales	Yes	144	.8363	.54587	3.717	.000*
	No	317	1.0469	.60116		
Global Severity Index	Yes	144	.6507	.38892	5.706	.000*
	No	317	.9170	.49475		

Mean scores of SCL-90-R sub-scales and t test analysis results of teachers participated in the study in terms of regularly do sports or not regardless of their branches are given in the table. In all sub-scales and global severity index between two groups, a significant difference was found in favor of the teachers who did sports regularly (p <.05).

Table 4. SCL-90-R Sub-Scale t-test Results of Branches in Terms of Regular Sports Status

Branch		**Physical Education**					**Different Branches**					
		n	$\bar{x}$	sd	t	p		n	$\bar{x}$		t	p
Somatization	Yes	111	.49	.345	4.9	.000*	Yes	33	.52	.453	3.2	.001*
	No	124	.76	.484			No	193	.85	.561		
Obsessive Compulsive	Yes	111	.92	.495	3.7	.000*	Yes	33	1.03	.525	2.1	.050
	No	124	1.16	.507			No	193	1.24	.582		
Interpersonal Sensitivity	Yes	111	.74	.504	2.8	.005*	Yes	33	.82	.528	2.3	.022*
	No	124	.94	.591			No	193	1.11	.686		
Depression	Yes	111	.74	.518	4.0	.000*	Yes	33	.77	.525	3.3	.001*
	No	124	1.05	.636			No	193	1.18	.659		
Anxiety	Yes	111	.47	.370	4.1	.000*	Yes	33	.55	.369	2.0	.046*
	No	124	.70	.481			No	193	.76	.587		
Anger Hostility	Yes	111	.56	.505	4.4	.000*	Yes	33	.72	.506	1.2	.308
	No	124	.89	.625			No	193	.84	.639		
Phobic Anxiety	Yes	111	.25	.321	2.4	.014*	Yes	33	.30	.374	2.0	.105
	No	124	.37	.430			No	193	.45	.506		
Paranoid Ideation	Yes	111	.89	.615	.9	.345	Yes	33	.98	.666	.83	.401
	No	124	.97	.605			No	193	1.09	.662		
Psychoticism	Yes	111	.41	.399	3.4	.001*	Yes	33	.46	.425	2.1	.036*
	No	124	.61	.476			No	193	.67	.544		
Additional Scales	Yes	111	.81	.535	2.8	.004*	Yes	33	.90	.583	1.3	.188
	No	124	1.02	.560			No	193	1.06	.626		
Global Severity Index	Yes	111	.63	.384	4.1	.000*	Yes	33	.70	.403	2.6	.010*
	No	124	.86	.461			No	193	.94	.513		

Mean scores of SCL-90-R sub-scales and *t* test analysis results of branches of teachers participating in the study in terms of regular sports status variable are given in the table. According to results, there is no significant difference between physical education teachers who do regular sports according to the paranoid ideation sub-scale (p>, 05), and there is a significant difference in favor of physical education teachers in all other sub-scales and global severity index (p <, 05). According to t-test analysis results of the SCL-90-R subscales, there is a significant difference between teachers in different branches according to interpersonal sensitivity, somatization, anxiety, depression and psychoticism sub-scales and global severity index. It is found that there is a significant difference in favor of teachers doing regular sports (p <.05), but there is no significant difference in other sub-scales (p> .05).

Table 5. SCL-90-R Sub-Scale t-test Results of Regular Sports Status in Terms of Branches of Teachers

		Regular Sports						**Non-Regular Sports**				
		n	**x̄**	**sd**	**t**	**p**		**n**	**x̄**	**sd**	**t**	**p**
Somatization	Phy. Edu	111	.49	.345	.2	.754	Phy. Edu	124	.63	.484	1.4	.383
	Dif. Bran.	33	.52	.453			Dif. Bran.	193	.70	.561		
Obsessive	Phy. Edu	111	.92	.495	1.0	.272	Phy. Edu	124	.76	.507	1.2	.152
Compulsive	Dif. Bran.	33	1.03	.525			Dif. Bran.	193	.85	.582		
Interpersonal	Phy. Edu	111	.74	.504	.7	.424	Phy. Edu	124	1.16	.591	2.3	.209
Sensitivity	Dif. Bran.	33	.82	.528			Dif. Bran.	193	1.24	.686		
Depression	Phy. Edu	111	.74	.518	.2	.797	Phy. Edu	124	.94	.636	1.6	.021*
	Dif. Bran.	33	.77	.525			Dif. Bran.	193	1.11	.659		
Anxiety	Phy. Edu	111	.47	.370	1.1	.251	Phy. Edu	124	1.05	.481	.07	.097
	Dif. Bran.	33	.55	.369			Dif. Bran.	193	1.18	.587		
Anger	Phy. Edu	111	.56	.505	1.5	.115	Phy. Edu	124	.70	.625	.7	.293
Hostility	Dif. Bran.	33	.72	.506			Dif. Bran.	193	.76	.639		
Phobic Anxiety	Phy. Edu	111	.25	.321	.7	.397	Phy. Edu	124	.89	.430	1.5	.453
	Dif. Bran.	33	.30	.374			Dif. Bran.	193	.84	.506		
Paranoid	Phy. Edu	111	.89	.615	.7	.453	Phy. Edu	124	.37	.605	1.7	.119
Ideation	Dif. Bran.	33	.98	.666			Dif. Bran.	193	.45	.662		
Psychoticism	Phy. Edu	111	.41	.399	.5	.552	Phy. Edu	124	.97	.476	1.0	.090
	Dif. Bran.	33	.46	.425			Dif. Bran.	193	1.09	.544		
Additional	Phy. Edu	111	.81	.535	.8	.385	Phy. Edu	124	.61	.560	.6	.302
Scales	Dif. Bran.	33	.90	.583			Dif. Bran.	193	.67	.626		
Global Severity	Phy. Edu	111	.63	.384	.8	.368	Phy. Edu	124	1.02	.461	1.5	.526
Index	Dif. Bran.	33	.70	.403			Dif. Bran.	193	1.06	.513		

Mean scores of SCL-90-R sub-scales and t test analysis results of regular sports status in terms of branches of teachers variable are given in the table. It is observed that there is no significant difference between physical education teachers who do regular sports and teachers in different branches who do regular sports in all sub-scales (p>, 05). It is found that there is a significant difference only in depression sub-scale (p <.05), whereas there is no significant difference in all other sub-scales. Scores in favor of physical education teachers who do non regular sports are low in depression sub-scale.

4. Discussion and Conclusion

In today's challenging life conditions, importance and protection of mental health in society is becoming more and more important. In this concept, mental health of teachers who play a key role in education of children and young people, and constitute future of a society, has a more important position. As mentioned above, physical activity and sport, which is one of the ways to protect mental health, can be seen as a research subject. With this idea whether there is a difference between physical education teachers who do regular sports or do not do regular sports and other sports teachers who do regular sports or not, in terms of mental health status, also purpose of our study is to examine whether there is a significant difference between "doing regular sports or not" status. In the study according to the mean scores of SCL-90-R sub-scales and t-test analysis results of teachers participated in the study in terms of branch. there is no significant difference between two groups in anger-hostility sub-scale), but there is a significant difference in all other sub-scales and global severity index. Although it is observed that there is no significant difference only in anger-hostility sub-scale, at the same time there is a significant difference in all other sub-scales and global severity index but mean scores of physical education teachers in all sub-scales and global severity index were lower than. It can be said that physical education teachers are in better condition than teachers in different branches in terms of mental health status. There is no generally valid standart point system for the "abnormal" assessment of SCL-90R score, but it is commonly reported that in this study over 1 (Derogatis, Lipman and Covi, 1977) and in this study over 1.5 (Kılıç, 1987) points show symptom of mental problems.

In a study, mean scores of anger and anger expression style sub-scales of all teachers were examined (Temel et al., 2015). As a result of this study; It was found that mean score of the trait anger and anger expression style sub-scales of teachers from different branches included in the study was moderate and there was no significant difference between anger and anger subscales between the branches (Temel et al., 2015). In this study, it was observed that scores of anger-hostility sub-scales were similar and low according to branches of the teachers and it was found to support this study's findings. Furthermore, in another study (Temel, 2015); it was observed that mean score of anger mean score of anger in control, mean score of introvert anger, and mean score of extrovert anger of the teachers' continuous anger and anger expression style sub-scales. So it can be said that being low mean score of anger was parallel to current study. According to mean scores of SCL-90-R sub-scales and t test analysis results of teachers participated in the study in terms of regularly do sports or not regardless of their branches, there is a significant difference between two groups in all sub-scales and global severity index, it is observed that scores are lower in favor of teachers who did regular sports. In other words, it can be said that general mental health status of teachers participating in regular sports is healthier than those who do not do regular sports.

Rimer et al.(2012) found that exercise reduces the severity of depression complaints; and Mammen and Faulkner (2013) also found that exercise is effective in preventing depression (, 2013). In a different study (Dunn et al., 2005), it was found that exercise, which corresponds to a daily walking time of thirty-five minutes, six days a week, reduces the participants' depression complaint by 47%. This study showed that three hours of physical activity per week was as effective as antidepressants in reducing complaints for individuals with mild to moderate depression (Dunn et al., 2005). The studies show that participating in physical activity not only reduces depression but also provides protection from depression. In the first review of twenty-six years of manuscript on the preservation of mental health with physical activity, it was stated that even mild activities such as walking or gardening for thirty minutes a day for all age groups can prevent depression (Mammen and Faulkner, 2013). In the study which investigated effects of regular exercise on depression in adolescents aged 14-18, it was found that depression levels of adolescents exercising regularly were lower than depression levels of non-exercising adolescents and as a result, regular exercise has a protective effect against depression processes (Hastürk and Şenışık, 2011). It can be said that regular sports, where all the above mentioned studies overlap with the findings of our research, have positive effects on mental health as well as the other groups mentioned. According to mean scores of SCL-90-R sub-scales and *t* test analysis results of branches of teachers participating in the study in terms of regular sports status variable results, there is no significant difference between physical education teachers who do regular sports according to the paranoid ideation sub-scale, and there is a significant difference in favor of physical education teachers in all other sub-scales and global severity index. According to t-test analysis results of the SCL-90-R subscales, there is a significant difference between teachers in different branches according to somatization, interpersonal sensitivity, depression, anxiety and psychoticism sub-scales and global severity index. It is found that there is a significant difference in favor of teachers doing regular sports, but there is no significant difference in other sub-scales. Except one scale, all sub-scales and global severity index scores of physical education teachers participating in regular sports were lower than physical education teachers who did not participate in regular sports. Most of the sub-scales and global severity index scores were lower in favor of doing regular sports teachers in different branches compared to not doing. In addition, global severity index and most sub-scales mean scores were lower in physical education teachers do regular sports than physical education teachers who do not do sports, and scores of teachers in different branches who do regular sports were lower than who do not sports. So it can be said to they have better mental health status in teachers who do regular sports. According to the findings of a study on mental health status of Flemish teachers (Bogaert et al., 2014), physical education teachers who participate physical activities reported better mental health status and less occupational stress than their colleagues. In a similar study (Erick and Smith, 2011), it was reported that physical education teachers' mental disorder prevalence scores were lower than other branch teachers. They argued that PE teachers could be physically more active and could spend more time on physical activity than other teachers. It is seen that results of the studies support the findings of our study. According to mean scores of SCL-90-R sub-scales and t-test analysis results of regular sports status in terms of branches of teachers variable, it is observed that there is no significant difference between physical education teachers who do regular sports and teachers in different branches who do regular sports in all sub-scales. It is found that there is a significant difference between PE teachers who do not regular sports and teachers in different branches who do not regular sports only in depression sub-scale), whereas there is no significant difference in all other sub-scales. Spesific for branches reason why there is no significant difference between those who do regular sports or those who do not do sports is that the concept of regular sports is a general condition, so physical education teachers do not show that they are in a better position as mental health than teachers in different branches who do regular sports even if PE teachers do regular sports. Regardless of teachers' branches mean scores of the test subscales and global severity index scores of the teachers doing regular sports were lower than those who did not do regular sports. In summary, an important criterion for teachers is to ensure regular participation in sports, not teachers' branches. A study (Scheuch, Haufe and Seibt, 2015) found that teachers working in Germany, especially those who are more conscious about sports and physical activity, differ from the general population, have less pronounced cardiovascular risk factors such as overweight, metabolic disorders and smoking, and less mental health complaints reported. The results of this study also coincide with the findings of the current study.

In this research, it was aimed to determine differences between teachers' branches in terms of mental health status according to whether they do regular sports or not. As a result, global severity index score of each participant who declared that they do regular sports was lower than those who do not. There were no significant differences in mental health status of the teachers according to specific branches. The difference between individuals' scores was found to be significant compared to whether or not to do regular sports. Sub-scales scores and global severity index score of teachers who participated in regular sports were found to be low. It is one of the limitations that the research consists of teachers working only in Mersin and Şanlıurfa. Another limitation is inclusion of teachers in the research regardless of type or degree of school which they work. Although large number of studies about SCL-90-R literature have reached, one of handicaps of the study is that there has been very limited resources about sports and teachers in SCL-90-R context. On the other hand, despite very limited resources, it is the first study investigating teachers' sports behaviors and their psychological symptoms levels in Turkey are also thought to be very important in terms of making a new contribution and perspective to the literature.

Most studies have demonstrated positive effects of regular sport participation at optimum level on human physical and mental health. Teachers in the school are primary and effective guide to the children and young people who are guarantee of our future. Undoubtedly teachers have a great duty to raise healthy individuals and generations. Regardless of their branches, the physical and mental health of teachers we consider to raise healthy individuals and generations, has a great importance. Young people or children who receive education from an unhealthy teacher in an unhealthy environment will undoubtedly experience chronic negative consequences of this throughout their lives. Contribution of sports should not be denied in order to protect and strengthen mental health of individuals and to improve their coping capacity. It is thought that individuals who have mental health problems and who do not have healthy mental processes will create socializing environments other than clinical precautions, ensure their participation in sports or exercise, and that they will hold on to life more closely and contribute to society. For this reason, it may be suggested that education, health and sports policies should be encouraged teachers to participate in sports regularly in order to improve their own mental health quality and contribute to their role models.

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The Patriotic Attitudes of the Prospective Teachers

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ABSTRACT

The concept of patriotism can be defined as loving the homeland and making sacrifices for it. From this perspective, it can be said that the concept of patriotism has a function of uniting and integrating the people who live on the same land and gives people an understanding which is proud of its history. Patriotism is also a dynamic concept. Because it is the behavior, consciousness and understanding that we put forward in every moment of life, in every field and in all our actions. It is also the basic condition of being a good and effective citizen. With the impact of globalization and technology, while the world is rapidly becoming a big village, civil wars, migrations, economic crises, hunger, famine and confusion in various continents and countries of the world increase the need for protection of national values and reveal the importance of patriotic education. On the other hand, patriotic education is aimed to be provided to the students who will be the citizens of the future through the education programs in the schools. For this reason, determining the patriotism attitudes of the teachers who will gain the patriotism value to the students is important in determining the deficiencies and taking measures in the acquisition of this value. In this context, the aim of the study was to reveal the pre-service teachers' patriotic attitudes. In the research, screening model which is one of the quantitative research types was used. The study group of the research is composed of Social Studies, Turkish, Science, Mathematics, Primary School and Preschool teachers who are studying in the 3rd and 4th grades of a state university in the fall semester of 2019-2020 academic year. The sample type of the study was determined as purposeful sample. In the study, "Attitude Scale of Patriotism Attitude" which was developed by Schatz, Staub and Lavine (1999) and adapted into Turkish by Yazıcı (2009) was used. As a result, according to the gender of male teachers were more patriotic than famela students. According to the department variable, there is a difference between the department of social studies education and preschool education in the blind patriotism and whole scale scores, in favor of social studies education. There was no significant difference according to family income and class level.

Keywords:
Patriotism, prospective teachers, attitude.

1. Introduction

Countries have aimed at reaching a better status all the time. As for the states already standing in a good position, they have paid strict attention to secure and improve their existing conditions. What makes possible for a country to exist and develop is, in fact, the individuals who live in it. As long as the individuals are sensitive to the country or society in which they live, the country develops at an equal rate. Individuals who work for and endeavor to promote their country are patriotic individuals. At this point, the concept of patriotism comes to the forefront.

It is thought to be useful to explain the concept of homeland before the patriotism. In Turkish language, the word vatan, which is the equivalent of the English word homeland, derives from the word "evtan" in Ottoman Turkish. It means the motherland where a human being was born and raised, the hometown

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beloved and the land worth dying for (Can-Beken, 2010). Üstel (2004) also states that the concept of homeland includes three aspects in its meaning as a whole: the land, origin and nationality. According to this statement, homeland is a place having a meaning based on the sense of belonging, loyalty and affection and to be loved, secured, made sacrifices for and even to be died for, if needed. The concept of patriotism is expressed by these feelings towards the homeland. Merry (2009) defines patriotism as defending the country by word or in action, having a strong liking for and glorifying the ones who have lost their lives by fighting for their country, and memorializing the ones who have fought in order to ensure the independence of the country. Karagözoğlu (2018) points out that patriotism is to believe consciously in the unity of nation and indivisible unity of the country. Yazıcı and Yazıcı (2010) consider patriotism as the consciousness in existence in daily life and current affairs beyond making great sacrifices and accomplishing great things. Elban (2011) explains the love of homeland in view of the fact that the individual regards particularly himself and his family, his close circle, the organization where he works, the country where he lives and its citizens esteemed. Parker (2009) sees patriotism as a means of maintaining the policies and values of national institutions. According to Nathanson (1997), patriotism involves four basic constituents. These are special affection for one's own country, perceiving the sense of personal identification with the country, being concerned with the well-being of the country and willingness to sacrifice to promote the well-being of the country.

In the literature, it is seen that the concept of patriotism is classified into three as blind patriotism, constructive patriotism and active patriotism.

Blind Patriotism: It is characterized with displaying an unquestioning attitude by ignoring all analyses and criticisms related to the country and therefore supporting the country blindly (Schatz, Staub and Lavine, 2009). The ones who have adopted such kind of attitude consider that their own countries are superior or must be superior to other countries (Seymour Feshbach, 1991). In this regard, the sense of "love it or leave it" dominates. Since this type is not open to such a criticism, it is also not appropriate for the culture of democratic life and education (Kahn and Middaugh, 2006).

Constructive Patriotism: It is identified with the patriots who hold some of the actions realized by the government right, but criticize some of them in order to ensure a positive change and comply with the ideals of nations (Schatz, Staub and Lavine, 2009). For instance, although imperialism is mostly advantageous for the people of a nation, this perception may be rejected if it does not comply with democratic values (Staub, 1989).

Active Patriotism: One of the distinctions to be made for determining whether patriotism is right for democracy is to agree whether it requires an active participation, or not. Though both blind and constructive patriots love their country, none of them necessarily participate in civilian or political life in an active manner. Both blind and constructive patriots can discuss their viewpoints in social environments without acting to support the nation in any way. However, active patriots take part in democratic and civilian life in order to support the thing which they regard as the best for the country, maintain it and change the features about which they think that it is required to be improved. They can begin with voting on the actions and also go beyond. Their way of dealing with the actions may include the parent-teacher association board meetings or political movements and protests. Active patriots can be volunteers for elderly or work on a campaign. Their love of country and desire for the development of the country can be proven by the tasks they perform (Harwood Institute for Public Innovation, 2002).

When the types of patriotism are investigated, it can briefly be said that the ones in favor of blind patriotism defend their country blindly. Their country, whether it be good or not, is absolutely superior to the other countries. Constructive patriots criticize their country in all its positive and negative aspects, naturally in a constructive manner. Active patriots participate personally in the resolution of social problems.

An individual as a patriot is the one who knows well about all the characteristics of the nation and country to which he belongs, has a good knowledge of its history, culture and values, protects and defends his country under any circumstances, takes pride in the wars won by his nation and in military victories, and fulfills his own duties and responsibilities in terms of maintaining and also promoting the historical-cultural position which his country keeps across the world (Karagözoğlu, 2018). Patriots are expected to know and exercise their own rights, fulfill their responsibilities, be aware towards the world affairs and issues related to their countries and produce a solution to these, be sensitive to animals and natural heritage, to preserve historical heritage, be aware of the roles and responsibilities in their own society's share in historical process, and adopt social values. With the value of patriotism, social order and continuity are ensured. Patriotism enables an individual to learn his own rights in the society and has an important role in his socialization (Avcı, 2015). Moreover, patriotism features in the cooperation among groups, tolerance to diversity and adaption (Li and Brewer, 2004), creation of citizenship consciousness and raising effective citizens (Ersoy and Öztürk, 2015).

It would be possible only through education systems for the regime newly established following the proclamation of the Republic in our country to attain its goals. To maintain the unity and continuity of the country would be accomplishable by raising individuals as patriots. In this sense, the formation of citizenship consciousness in individuals would show parallelism with the development of sense of patriotism (Can-Beken, 2010). This is also obvious from the fact that the article in the Basic Law of National Education numbered 1739 which is declared as "To raise all the members of Turkish nation as citizens …embracing, conserving and promoting the national, ethical, humanitarian, moral and cultural values of Turkish nation, having a love for and endeavoring in order to glorify their family, homeland and nation all the time, …" is directly related to the concept of patriotism.

It is seen that there are several studies dealing with patriotism in the body of literature. Within the scope of these studies, the followings have been considered: transformation of the idea of patriotism in 1997 and 2004 primary school social studies course books (Ertürk, 2006), perception of teachers towards patriotism (Kurt, 2007), the study of the validity and reliability of the Patriotism Attitude Scale (Yazıcı and Yazıcı, 2010), attitudes of 11th graders towards patriotism and history courses (Elban, 2011), the evaluation of history courses in the schools of minorities in terms of multiculturalism and patriotism (Yazıcı, 2012), patriotic attitudes of the students at police academy (Çetinalp Şahin, 2014), perception of prospective Social Studies teachers for patriotism as a citizenship value (Ersoy and Öztürk, 2015), teacher and student opinions on introducing patriotism value to be gained in social studies courses (Avcı, 2015), some views on history education and patriotism (Elban, 2015), perception, attitude and educational practices of the history and social studies teachers for patriotism education (Yazıcı and Yazıcı, 2016), opinions of prospective preschool teachers about patriotism value (Karasu Avcı and İbret, 2016), teaching patriotism value in social studies course for primary school 4th graders (Gümüş, 2016), patriotic attitudes of the university students (Kabaklı Çimen, 2017), opinions of social studies teachers for patriotism value to be gained (Avcı, İbret and Karasu Avcı, 2017), value approaches that are practised by history teachers while teaching "patriotism" value to secondary school students (Gündüz, 2018), opinions of social studies teachers about patriotism and patriotism education in social studies courses (Yıldız, 2018), practices by different countries with respect to patriotism value to be gained in social studies (Yavuz, 2018), education for social studies teachers to achieve independence and patriotism values (Demirok, 2019), opinions of social studies teachers on developing patriotism value (Karaderili, 2019), opinions of 3rd and 4th graders and grade teachers as related to patriotism value (Özcel, 2019), contribution of tours and observations made within the scope of Geography courses to patriotism value (Küpeli, 2019), perception of secondary school students towards patriotism value (Bilginer, 2019), and attitudes and opinions of the prospective social studies teachers concerning patriotism in citizenship context (Tarhan, 2019). According to this, it can be stated that patriotism is usually dealt within the context of Social Studies and History courses. On the other hand, patriotism is not a course subject which can be evaluated only in these fields of study. It is required that the concept of patriotism be considered important within the scope of other fields.

It is significant for individuals to have their attitudes towards patriotism built at early ages in terms of internalizing this attitude (Karasu Avcı and İbret, 2016). For this reason, the acquisition of patriotism value at the elementary level, which an individual begins to see and make sense of the life, will contribute to both educating conscious citizens and maintaining the unity and solidarity of the country in the future. The contribution made by the teachers at this level in respect of patriotism value to be gained by the students cannot be denied. Determining the patriotic attitudes of the teachers who will allow their students gain patriotic attitude is important in terms of identifying the deficiencies in gaining this attitude and taking relevant precautions. In this study, it is aimed to investigate the patriotic attitudes of the prospective teachers from various fields of study at the elementary level.

The following questions are sought in the research.

1. What are the patriotic attitudes of prospective teachers?

1.1. Do the attitudes of prospective teachers towards patriotism differ by gender?

1.2. Do the attitudes of prospective teachers towards patriotism differ by their departments?

1.3. Do the attitudes of prospective teachers towards patriotism differ by family income?

1.4. Do the attitudes of prospective teachers towards patriotism differ by grade level?

2. Methods

2.1. Research Model

In this research, survey model as a quantitative research method was used. Survey model is an approach that aims to define and describe a past or present situation as it existed or still exists. In this approach, there is no attempt to change or influence on whatever the subject of the research is (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz and Demirel, 2009).

2.2. Study Group

The study group of the research consists of 528 prospective Social Studies, Turkish Language, Science, Mathematics, Primary School and Preschool teachers receiving education as the 3rd and 4th year undergraduates of a state university for the fall semester of the academic year 2019-2020. Purposive sampling method was determined to be used in the study. Purposive sampling is the selection of the sample in which the researcher focuses on his own professional judgment about who will be selected and that fits the research objective (Balcı, 2009). In this study, 3rd and 4th year undergraduates, as prospective teachers, were selected since it was thought that they gained professional teaching knowledge, skills and attitudes more.

2.3. Data Collection Tool

In the research, "Patriotism Attitude Scale" developed by Schatz, Staub and Lavine (1999) and adapted into Turkish language by Yazıcı (2009) was used as data collection tool. Data were collected by the researchers by reaching prospective teachers personally. The Scale is a five-point Likert type. The coefficient of internal consistency was calculated 0,79 for the blind patriotism dimension, 0,78 for the constructive patriotism dimension, and 0,75 for the whole scale by Yazıcı (2009). However, the researchers calculated 0,671 for Blind Patriotism, 0,767 for Constructive Patriotism and 0,637 for the whole scale. Although reliability coefficient found 0,70 and over for a psychological test is considered sufficient for test reliability (Büyüköztürk, 2012), 0,50 and over are regarded acceptable reliability coefficent when the number of items is few (Nunnally, 1978). Since the item 5, item 7 and item 12 in the Scale were negative statements, they were re-coded and calculated.

2.4. Data Analysis

Data were collected by the researchers by reaching the prospective teachers themselves. According to Tabachnick and Fidell (2001), if the sample size is large, it is more appropriate to evaluate the type of distribution, instead of the tests of normality for significance. Since the standard error will be minor in large samples, it will lead to the rejection of null hypotheses for the tests of significance easily. Therefore, in the researches, finding Kolmogorov-Smirnov results significant should not be interpreted as excessive deviation from normal distribution. As the sample size increases, it is estimated that the probability of finding small differences significant tends to increase (Çokluk, Şekercioğlu and Büyüköztürk, 2012). Thus, skewness and kurtosis values for the relevant variable were +/- 1, and the tests of significance for skewness and kurtosis values were not found significant. In the test performed for normal distribution, the skewness value was calculated 0,142 and the kurtosis value was calculated 0,256. Accordingly, since it was normal in distribution, parametric tests were used. Data obtained in the research were analyzed by independent samples t-test, one-way ANOVA, Scheffe test, LSD test, descriptive statistics, and correlation analysis.

3. Findings

In this section, findings obtained through the answers that the prospective teachers gave to the patriotism attitude scale are included. As regard to this, answers given by the prospective teachers to the scale were examined and assessed by gender, grade level, department and family income per month. Additionally, the relationship between the dimensions on the scale was detected and presented below in tables.

Descriptive statistics for blind patriotism, constructive patriotism and total attitude scores that the prospective teachers obtained from the scale are given in Table 1:

Table 1. Patriotic attitude scores of the participants

Dimensions	n	Minimum	Maximum	$\bar{X}$	sd
Blind Patriotism (12 items)	528	12	60	33,98	5,48
Constructive Patriotism (7 items)	528	7	35	30,67	2,96
Whole Scale (19 items)	528	19	95	64,65	6,06

When the minimum, mean and maximum awareness scores to be obtained from the dimensions on the scale were analyzed, 12(12x1) as the minimum, 30(12x2.5) as the mean and 60(12x5) as the maximum were calculated for blind patriotism; 7(7x1) as the minimum, 17,5(7x2.5) as the mean and 35(7x5) as the maximum were calculated for constructive patriotism; and 19(19x1) as the minimum, 47,5(19x2.5) as the mean and 95(19x5) as the maximum were calculated for the whole scale. Considering the findings in Table 1 as based on these scores, it was detected that the scores obtained by prospective teachers for blind patriotism, constructive patriotism and whole scale.

The difference by gender in the scores of prospective teachers for blind patriotism, constructive patriotism and total was examined and findings relevant to the independent samples t-test results are presented in Table 2.

3.1. Findings for Difference by Gender of the Participants in the Patriotism Attitude Scale Dimensions

Table 2. Independent samples t-test results of the participants' patriotism attitude scale dimensions according to gender

Dimensions	Gender	n	Mean	S.D.	t	p
Blind Patriotism	Female	385	33,4831	5,32049	-3,459	,001
	Male	143	35,3217	5,70718		
Constructive Patriotism	Female	385	30,5948	2,97682	-,124	,360
	Male	143	30,8601	2,91089		
Whole Scale	Female	385	64,0779	5,89175	-3,187	,000
	Male	143	66,1818	6,27047		

When Table 2 is examined, it is seen that blind patriotism and total mean scores of the prospective teachers differ by gender (p=0,001; p=0,000). In other words, a difference was found in the blind patriotism dimension and the whole scale in favor of males.

3.2. Findings for Difference by Grade Level of the Participants in the Patriotism Attitude Scale Dimensions

Another variable in the research is grade level. Considering the grade level of undergraduates as prospective teachers participating in the study, findings for their scores for blind patriotism, constructive patriotism and Whole Scale are presented in Table 3.

Table 3. Independent samples t-test results of the participants' patriotism attitude scale dimensions according to grade level

Dimensions	Grade Level	n	Mean	S.D.	t	p
Blind Patriotism	3rd Year	263	33,8707	5,20115	-,460	,646
	4th Year	265	34,0906	5,75834		
Constructive Patriotism	3rd Year	263	30,6920	3,03419	,196	,845
	4th Year	265	30,6415	2,88737		
Whole Scale	3rd Year	263	64,5627	5,89434	-,321	,749
	4th Year	265	64,7321	6,23649		

When Table 3 is examined, it is seen that blind patriotism, constructive patriotism and Whole Scale mean scores of the prospective teachers do not differ by grade level (p=0,646; p=0,845; p=0,749). In other words, no difference is found in any dimensions.

3.3. Findings for Difference by Department of the Participants in the Patriotism Attitude Scale Dimensions

The department at which the prospective teacher's study is another variable in the research. Concerning this variable, findings for the scores that the prospective teachers obtained for blind patriotism, constructive patriotism and Whole Scale are presented in Table 4.

Table 4. Descriptive statistics for the patriotic attitudes of the participants' according to department

Dimensions		n	$\overline{X}$	sd
Blind Patriotism	Social Studies Education	88	35,41	5,84
	Turkish Language Education	73	33,41	6,84
	Classroom Teaching Education	96	34,21	5
	Mathematics Education	87	34,16	5,03
	Science Education	57	34,81	4,39
	Preschool Education	127	32,65	5,21
	Total	528	33,98	5,48
Constructive Patriotism	Social Studies Education	88	30,58	3,59
	Turkish Language Education	73	31,08	2,94
	Classroom Teaching Education	96	30,79	2,88
	Mathematics Education	87	30,71	2,45
	Science Education	57	30,39	2,72
	Preschool Education	127	30,49	2,99
	Total	528	30,67	2,96
Whole Scale	Social Studies Education	88	65,99	6,61
	Turkish Language Education	73	64,49	7,55
	Classroom Teaching Education	96	65,00	5,76
	Mathematics Education	87	64,87	5,24
	Science Education	57	65,19	5,15
	Preschool Education	127	63,14	5,63
	Total	528	64,65	6,06

When Table 4 is examined, it is seen that the blind patriotism and Whole Scale scores of prospective teachers differ. On the other hand, it is also seen that their scores for constructive patriotism are very close. In addition to this, the highest score is held by the prospective social studies teachers in the blind patriotism dimension and for the whole scale. In order to analyze the difference seen in these scores in terms of the grade level variable, one-way ANOVA was made. The analysis results are presented in Table 5.

Table 5. One-way ANOVA results for the patriotic attitudes of the participants' according to department

Dimensions		Sum of Squares	df	Mean of Squares	F	Sig.
Blind Patriotism	Intergroup	473,653	5	94,731	3,216	,007
	Intragroup	15374,158	522	29,452		
	Total	15847,811	527			
Constructive Patriotism	Intergroup	23,493	5	4,699	,534	,750
	Intragroup	4589,841	522	8,793		
	Total	4613,333	527			
Whole Scale	Intergroup	481,307	5	96,261	2,660	,022
	Intragroup	18893,170	522	36,194		
	Total	19374,477	527			

According to Table 5, a significant difference was found between the blind patriotism and whole scale scores of prospective teachers, but no significant difference was seen in the scores for constructive patriotism (F=3,216, p<,05; F=,534, p<,05; F=2,660, p<,05).

The Scheffe test multiple comparison of the blind patriotism and total attitude scores of prospective teachers by grade level variable was carried out. The relevant results are presented in Table 6.

Table 6. Results of LSD test comparison of the patriotic attitudes of the participants' according to department

Dimensions	Difference of Means	Standard Error	P	Difference	
Blind Patriotism	2,75555*	,75	,021	Social Studies Education	Preschool Education
Whole Scale	2,84690*	,83	,042	Social Studies Education	Preschool Education

According to Table 6, it is seen that there is a difference between the department of social studies education and preschool education in the blind patriotism and whole scale scores, in favor of social studies education.

3.4. Findings for Difference by Family Income of the Participants in the Patriotism Attitude Scale Dimensions

In the research, the blind patriotism, constructive patriotism and Whole Scale scores of prospective teachers were examined by the family income per month. Descriptive statistics for this are presented in Table 7.

Table 7. Descriptive Statistics for the Patriotic Attitudes of the Participants' According to Family Income

Dimensions		n	$\bar{X}$	sd
Blind Patriotism	1000-1999	151	33,73	5,24
	2000-2999	162	34,56	5,34
	3000-3999	95	33,71	6,04
	4000-4999	55	34,06	5,42
	5000 and over	65	33,46	5,64
	Total	528	33,98	5,48
	1000-1999	151	30,96	2,92
	2000-2999	162	30,27	3,00

Constructive Patriotism	3000-3999	95	30,72	2,98
	4000-4999	55	30,36	2,93
	5000 and over	65	31,17	2,87
	Total	528	30,67	2,96
Whole Scale	1000-1999	151	64,69	5,88
	2000-2999	162	64,83	6,03
	3000-3999	95	64,42	6,42
	4000-4999	55	64,42	6,21
	5000 and over	65	64,63	6,07
	Total	528	64,65	6,06

When Table 7 is examined, it is seen that the blind patriotism, constructive patriotism and whole scale scores do not differ. In order to analyze whether there is a difference in these scores obtained by the prospective teachers in terms of the family income variable, one-way ANOVA was made. The analysis results are presented in Table 8.

Table 8. One-way ANOVA results for the patriotic attitudes of the participants' according to family income

Dimensions		**Sum of Squares**	**df**	**Mean of Squares**	**F**	**p**
Blind Patriotism	Intergroup	89,323	4	22,331	,741	,564
	Intragroup	15758,488	523	30,131		
	Total	15847,811	527			
Constructive Patriotism	Intergroup	60,793	4	15,198	1,746	,139
	Intragroup	4552,540	523	8,705		
	Total	4613,333	527			
Whole Scale	Intergroup	13,268	4	3,317	,090	,986
	Intragroup	19361,210	523	37,020		
	Total	19374,477	527			

With reference to Table 8, no significant difference was found among the scores of the prospective teachers for the blind patriotism, constructive patriotism and whole scale (F=,741, p<,05;F=,1,7466, p<,05;F=,090, p<,05). In other words, no intergroup difference is seen in any dimensions and for the whole scale.

3.5. Findings for the Values of Arithmetic Mean, Standard Deviation and Correlation of the Patriotism Attitude Scale of the Participants

Table 9. Arithmetic mean, standard deviation and correlation values of the variables

Dimensions	$\bar{X}$	**sd**	**1**	**2**	**3**
1.Blind Patriotism	33,9811	5,48377	1	- ,064	,873**
2.Constructive Patriotism	30,6667	2,95871		1	,430**
3. Whole Scale	64,6477	6,06331			1

Considering the relationship for the dimensions in Table 9, low-degree negative relationship between constructive patriotism and blind patriotism and high-degree positive relationship between the whole scale and whole scale were found. Also, a moderate-degree positive relationship was found between constructive patriotism and total dimension.

4. Discussion

In the research, the patriotic attitudes of the prospective teachers from different fields of study were investigated. According to this, a significant difference in favor of males was realized for the blind patriotism and total dimensions when the patriotic attitudes of the prospective teachers were analyzed by gender variable. In the study carried out by Tartakovsky (2010), it is stated that males have a stronger sense of identity towards their country. It is pointed out by Kabaklı Çimen (2017) that the blind patriotic attitudes of male undergraduates are higher, while female undergraduates have greater attitudes for constructive patriotism. This finding supports the result of this research. On the other hand, there are some studies (Gömleksiz and Cüro, 2011; Baş, 2016; Küpeli, 2019) indicating that female students are more aware towards the value of patriotism than male students are, when examined from gender variable. This contrasts with the result attained in this study. However, the results suggesting that any relationship by gender was not determined (Elban, 2011; Tarhan, 2019) are also encountered in literature. In the study carried out by Bakioğlu and Kurt (2009), it was detected that most of the teachers had positive perception of patriotism regardless of their gender. This consequence can be explained by the view that the patriotic attitude with its political, sociological and psychological aspects may differ as based on the one's socio-cultural environment, personality traits, loyalty to the country and the political landscape of the country.

In the research, the patriotic attitudes of the prospective teachers were also evaluated by the department at which they studied. Considering their scores for the blind patriotism and total dimensions, difference between social studies education and preschool education was found in favor of social studies education. It was determined by Yazıcı, Pamuk and Yıldırım (2016) that the prospective History teachers had a high level of patriotic attitudes. In the study carried out by Ersoy and Öztürk (2015), it is seen that the prospective Social Studies teachers have constructive patriotic attitudes. Yazıcı (2009) determined that the patriotic attitudes of Social Studies and History teachers show similarity greatly. As certain courses, such as Social Studies and History, are the ones which patriotism can be gained through their content, this study also supports the results obtained in favor of the prospective Social Studies teachers. In the study by Kabaklı Çimen (2017), a significant difference between the patriotic attitudes of the university students and the faculty where they studied was found. Accordingly, it can be said that the faculty or department where students receive education may have an effect on their patriotic attitudes.

In this study, it is seen that the patriotic attitudes of the prospective teachers do not differ by family income. Also, Beldağ (2012) found same result. In the study by Tarhan (2019), on the other hand, it is seen that the patriotic attitude levels of the prospective Social Studies teachers do not differ by the economic conditions of the family. This finding is consistent with the result of this study. In the study carried out by Kabaklı Çimen (2017), a significant difference between the patriotic attitudes of the university students participating and their socio-economic levels was determined. It is not consistent with the result of this study.

When considered by grade level, it is seen that there is no difference in the patriotic attitudes of the prospective teachers. It was determined by Kabaklı Çimen (2017) that the scores for constructive patriotism differed by the grade level of university students. According to this, it can be said that the grade level may have an effect on the patriotic attitudes of the university students. However, in the study carried out by Tarhan (2019), it is seen that the patriotic attitude levels of the prospective Social Studies teachers do not differ by grade level. This finding supports the results obtained from this study.

In line with the results of this study, the following suggestions can be made:

- To include the courses for citizenship as compulsory or elective into the undergraduate programs may enhance the patriotic attitudes of the prospective teachers positively.
- Tours to the historical sites or sights, like Çanakkale, which may have a positive effect on developing the patriotic attitudes of the prospective teachers, may be organized.
- Movies and documentaries focusing on the patriotism value (120, Fetih 1453, Gelibolu and etc.) which helps the prospective teachers enhance their patriotic attitudes may be shown during their education.
- The prospective teachers may be guided to attend the panels, conferences, seminars and such kind of scientific activities through which they enhance their attitudes towards patriotism.

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Examination of the Academic Dissertations Related to the Problems Encountered in Social Studies Teaching: Meta-Synthesis Study

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ABSTRACT

The aim of the research is to examine the postgraduate theses about the problems encountered in social studies teaching with meta-synthesis study. The study was prepared with meta-synthesis design including thematic content analysis based on qualitative research methodology. The data of the master's and doctorate theses were collected from the National Thesis Center of the Council of Higher Education (YOK) via internet connection. The data were searched under the title of problems encountered in social studies teaching. The researches in this study were 28 master and 2 doctoral theses conducted between 2004-2018. The studies included in the research were determined primarily by reviewing the literature. Each of the identified studies was coded as 'A' by shortening 'Research'. A1, A2, A3,…, A30 codes were given and a detailed grading process was passed. All theses examined were primarily coded. Then all the coded data were tabulated for the themes created. The coded theses were tabulated according to the objectives, years, university, thesis type, sample region, model, method, results and suggestions. The frequencies of the theses that were coded into tables were found. The frequencies were interpreted in accordance with the meta-synthesis study. The prominent problems in research are; problems of teaching of the course, problems of program and textbook, problems in teaching of geography subjects and problems encountered in teaching of history subjects. In the research theses, some suggestions are made such as in-service training, tools, equipment and resource support, arrangement of program and textbooks, appropriate course teaching and increasing the hours of the course.

Keywords:
Social studies teaching, problems encountered, meta-synthesis study.

1. Introduction

Education starts from the existence of human beings. Education has always existed in different ways, from the most primitive societies to the most modern societies, from early human societies to modern human societies. The education, which was informal before the writing was found, then became formal (Şişman, 2012; Uygun, 2018). Education is the part of education that is planned, programmed and carried out as a course in schools. The curriculum is a course set-up covering all of the teaching experiences and activities planned to be taught to individuals both inside and outside the school. The syllabus is the program that covers all the activities that are applied to the individual while acquiring the aims and behaviors designed in the course of teaching (Demirel, 2013). Each course has a curriculum and the social studies course is taught within a program. Social Studies course was taught in the United States in 1916 for the first time. In Turkey, for the first time, it began

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to be taught in 1968 (Güngördü, 2002; Sönmez, 2005; Öztürk, 2006; Bilgili, 2008; Safran, 2008; Kan, 2010). The latest social studies curriculum was published in 2017 and revised in 2018.

Units were not included in the social studies curriculum and gains were given under the title of learning areas. The skills included in the program have increased and the gains and values have decreased. The concept list and classification is not made and there is no explanatory information about the activities. The latest social studies curriculum offers flexibility to teachers (Uygun, 2018). Social Studies course; although it is multidimensional, open to development and active discipline that puts the student in the center, the problems and difficulties encountered in teaching are outstanding. There are many studies in the field literature on the problems encountered in teaching social studies. These studies can be categorized as follows:

Studies on social studies education and teaching problems (Aydın, 2004; Karasoy, 2004; Köroğlu, 2006; Tahiroğlu, 2006; Yılmaz, 2010a; Alataş, 2010; Yavuz, 2010; Akşit, 2011; Tangülü & Çıdacı, 2014; Akmehmetoğlu, 2014; Yener, 2014; Memişoğlu & Köylü, 2015; Gönenç & Açıkalın, 2015; Karaca, 2017; Tonga, 2017; İbrahimoğlu, 2018); studies on social studies curriculum, content and textbook problems (Tuncer, 1999; Kırtay, 2007; Sağlam, 2014; Akdeniz, 2008; Ekici, 2018; Baydar, 2009; Arslantaş, 2006); problems in geography subjects in social studies teaching (Salik, 2007; Karakök, 2011; Aktaş, 2010; Sagay, 2007); problems in history subjects in social studies teaching (Yuvacı, 2018; Göç, 2008; Akşit, 2016; Ünal, 2012); method / technical problems of social studies teachers (Erdoğdu, 2010; Polat, 2006); Problems in museum teaching (Sönmez, 2011); Problems of new teachers (Tepebaş, 2010; Yılmaz & Tepebaş, 2011); problems faced by students (Göçgen,2016); problems in merged classes (Abay, 2007) and problems encountered in social studies education at undergraduate level (Yılmaz, 2009; Yılmaz, 2010b).

The similarities, differences, results and suggestions of the problems encountered in the teaching of social studies will shed light on the other researchers.

1.1. Purpose of the research

The aim of the research is to examine the postgraduate theses about the problems encountered in social studies teaching with meta-synthesis study. For this purpose, the following sub-problems were sought:

What is the distribution according to research purposes?

What is the distribution of research by years?

What is the distribution of Research by Universities?

What is the distribution according to sampling regions?

What is the distribution of research by thesis types?

What is the distribution according to research models?

What is the distribution according to research methods?

What is the distribution according to research results?

What is the distribution according to research proposals?

2. Method

2.1. Research Design

The study was prepared with meta-synthesis design including thematic content analysis based on qualitative research methodology. Meta-synthesis studies are to reach common themes with a holistic perspective of the researcher (Glesne, 2013). Meta-synthesis is a study examining and interpreting the findings of multiple studies (Finfgeld, 2003; Walsh & Downe, 2004). In addition, the research is to compare the similarities and differences. It is the synthesis of the critical paradigm of studies and themes on the same subject (Çalık & Sözbilir, 2014).

2.2. Data Collection and Analysis

The study has been prepared considering the following sequential stages (Noblit & Hare, 1988: 26-29):

Stage 1: Identifying the topic or title by creating the focus of the topic.

Stage 2: Determining the works to be synthesized, deciding the works to be included and excluded.

Stage 3: Reading the study data.

Stage 4: Creating themes by identifying the relationship between works.

Stage5: Transforming works by comparing them.

Stage 6: Synthesizing the works.

Stage 7: Presenting the synthesis.

The data of the master's and doctorate theses were collected from the National Thesis Center of the Council of Higher Education (YOK) via internet connection. The data were searched under the title of problems encountered in social studies teaching and obtained by contacting the university library where theses were made for the dissertations that could not be reached. The researches in this study were 28 master and 2 doctoral theses conducted between 2004-2018.

The studies included in the research were determined primarily by reviewing the literature. Each of the identified studies was coded as 'A' by shortening 'Research'. A1, A2, A3,…, A30 codes were given and a detailed grading process was passed. All theses examined are primarily coded. Then all the coded data were tabulated for the themes created. The coded theses were tabulated according to the objectives, years, province / university, thesis type, sample region, model, method, results and suggestions. The frequencies of the theses that were coded into tables were found. The frequencies were interpreted in accordance with the meta-synthesis study.

The validity of qualitative research is the fact that the researcher presents the facts as researched as it is and as impartially as possible (Yıldırım & Şimşek, 2005). It is important for the validity of the data collection process, the identification of included and excluded studies. The studies included in the research were analyzed in an objective manner and as is.

2.3. Inclusion and Exclusion Criteria for Research

Inclusion and Exclusion Criteria for Research

Studies have been prepared in Turkey.

The researches were conducted between 2004-2018.

In the title and summary of the research, social studies teaching includes words of problem, problem and difficulty.

To reach the full text of the research.

The studies included in the research are given in Table 1.

Table 1. List of studies included in the research

Code	Author	Research Subject	Sampling / Province
A1	Kırtay, A.	The solution references and meeting problems using the application of the social in studies in the 4th and 5th classes in the education term in 2005-2006	Kars
A2	Aydın, D.	Teaching at social studies lesson in 4. and 5. classes of primary school on difficulties that are faced with (Example Bitlis)	Bitlis
A3	Karasoy, D.	Teaching of social studies lesson in 4. and 5. classes of primary school and difficulties that are faced with	Konya

A4	Sönmez, E.	2nd stage 6th grade elementary social studies course in Ancient history museums in the processing of the importance of issues problems and solutions: Case of Şanlıurfa	Şanlıurfa
A5	Erdoğdu, E.	Methods/techniques used by social studies teachers and problems they faced	Kütahya
A6	Sağlam, E.	Evaluation of value getting levels and difficulties which are met in evaluation process designated in the program of primary school 4th grade social studies lecture	Çanakkale
A7	Tepebaş, F.	Social studies teachers encountered problems who start a new career	İstanbul
A8	Köroğlu, F. İ.	The problems of teaching social studies lesson in fifth class of primary school	Erzurum
A9	Polat, F.	Social studies of teachers and their faced problems at 7th grade of primary school	Afyon
A10	Alataş, F.	Problems encountered in 4th and 5th grade social studies teaching in primary education curriculum	İzmir
A11	Salik, G.	The problems encountered in teaching geography subjects in social studies and the teachers views about the analyzing suggestions	Eskişehir
A12	Karakök, H.	The effect of success level of teacher candidate of land trip in education of physical geography subjects and the problems encountering in education of physical geography subjects	Niğde
A13	Akmehmetoğlu, H.	The problems encountered by social studies teachers in social studies teaching (Sample of Kastamonu province)	Kastamonu
A14	Yener, Ş.	Problems encountered by social studies teachers related to the instruction of social studies course: Case of Muş province	Muş
A15	Akşit, İ.	The problems which social studies teachers serving in primary schools faced, during the social studies education (The examples of Denizli and Erzurum)	Denizli- Erzurum
A16	Yavuz, İ.	Opinions of teachers regarding problems encountered in social studies courses in the six grade (Ankara provincial sample)	Ankara
A17	Yuvacı, İ.	The applications of social studies teachers about the local history and the problems encountered-sample of Sivas	Sivas
A18	Aktaş, S.	Teaching subjects of geography at social studies at second grade in primary scholls in the of renewed syllabus of primary school	Kilis G.Antep
A19	Tahiroğlu, M.	To reveal the obstacles and the difficulties that the social sciences teachers come across in the process of teaching social sciences (sample of Aksaray city)	Aksaray
A20	Akdeniz, N.	Difficulties encountered in new lesson program application of 6th class social studies lesson	Konya
A21	Göç, N.	To apply local history topics within social studies lessons; difficulties which they appear and solution offers (For the Yozgat case)	Yozgat
A22	Sagay, N.	Teaching of geography subjects in primary social studies courses (stage 2) : Problems- suggestions	Afyon

A23	Akşit, İ.	An action research intended to solve and detect the encountered issues that are used during the process of studying of some concepts on the 7th grade social studies course in the unit 'voyage in the history of Turkish	Denizli
A24	Ekici, Ö.	Social studies teachers' opinions on the problems in citizenship education at secondary schools	Diyarbakır
A25	Baydar, P.	The level of value acquisition which is determined in fifth grade primary school social studies course and the evaluation of the problems which are encountered in that process	Adana
A26	Abay, S.	The problem of teaching social studies in unified classes	Samsun
A27	Arslantaş, S.	The problems about instruct of satisfied of 6th grade and 7th grade social studies and proposals explanation in agreement with posture of teachers	Malatya
A28	Karaca, S.	The problems which social studies teachers serving in secondary schools faced, during the social studies education (The examples of Çorum)	Çorum
A29	Göçgen, S.	Examination of the problems faced by 7th grade students in preparing social studies course performance mission	Erzurum
A30	Ünal, S.	Social studies teachers problems about student oriented methods which they used for teaching history	Çanakkale

3. Results

Table 2. Distribution according to research purposes

Research purposes	**Code**	**f**
Course teaching problems	A2, A3, A8, A10, A13, A14, A15, A16, A19, A28	10
Program and textbook problems	A1, A6, A20, A24, A25, A27	6
Problems in teaching of geography subjects	A11, A12, A18, A22	4
Problems in teaching of history subjects	A17, A21, A23 A30	4
Method / technical problems of teachers	A5, A9	2
Problems in museum teaching	A4	1
Problems of new teachers	A7	1
Problems faced by students	A29	1
Problems in merged classes	A26	1
	Total	**30**

When Table 2 is examined, it is seen that the problems related to the teaching of the course (f = 10) are mostly examined according to the research aims. Distribution according to other purposes is given in Table 2.

Table 3. Distribution of research by years

Year	**Code**	**f**
2010	A5, A7, A16, A18	4
2006	A8, A9, A19, A27	4

2007	A1, A11, A22, A26	4
2008	A10, A20, A21	3
2011	A4, A12, A15	3
2014	A6, A13, A14,	3
2004	A2, A3	2
2017	A23, A28	2
2018	A17, A24	2
2009	A25	1
2012	A30	1
2016	A29,	1
2005	-	0
2013	-	0
2015	-	0
	Total	**30**

When Table 3 is examined, it is found that the most studies were conducted in 2006, 2007 and 2010 (f = 4). Distribution according to other years is shown in Table 3.

Table 4. Distribution of research by universities

University	**Code**	**f**
Atatürk University	A8, A14, A24, A29	4
Selçuk University	A3, A4, A19, A20,	4
Gazi University	A9, A16	2
19 Mart University	A6, A30	2
Çukurova University	A25	1
Afyon Kocatepe University	A22	1
Amasya University	A28	1
Pamukkale University	A15	1
Fırat University	A27	1
Anadolu University	A11	1
Marmara University	A7	1
Dokuz Eylül University	A10	1
Kastamonu University	A13	1
Kilis 7 Aralık University	A18	1
Kafkas University	A1	1
Dumlupınar University	A5	1
Niğde University	A12	1
Sakarya University	A2	1

Ondokuz Mayıs University	A26	1
Cumhuriyet University	A17	1
Gaziosmanpaşa University	A21	1
Uşak University	A23	1
	Total	**30**

Table 4 shows that the highest number of studies was conducted in Atatürk University (f = 4) and Selçuk University (f = 4). The distribution according to other universities is given in Table 4.

Table 5. Distribution according to sampling regions

Sampling Region	**Code**	**f**
Central Anatolia (İç Anadolu)	A3, A11, A12, A16, A17, A19, A20, A21, A28	9
Aegean (Ege)	A5, A9, A10, A15, A22, A23	6
Eastern Anatolia (Doğu Anadolu)	A1, A2, A8, A14, A29	5
Southeastern Anatolia (G. Doğu Anadolu)	A4, A18, A24, A27,	4
Marmara	A6, A7, A30	3
Black Sea (Karadeniz)	A13, A26	2
Mediterranean (Akdeniz)	A25	1
	Total	**30**

Table 5 shows that the highest number of studies was performed in Central Anatolia (Iç Anadolu) Region (f=9). Distribution according to other sample regions is given in Table 5.

Table 6. Distribution of research by thesis types

Thesis Type	**Code**	**f**
Master's	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A12, A13, A14, A15, A16, A17, A18, A19, A20, A21, A22, 25, A26, A27, A28, A29, A30	28
Doctorate	A23, A24	2
	Total	**30**

When Table 6 is examined, it can be seen that the most work is the master's thesis (f = 28). Distribution of the other thesis type is given in Table 6.

Table 7. Distribution according to research models

Research Model	**Code**	**f**
Screening model	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A13, A14, A15, A16, A17, A18, A19, A20, A21, A22, A23, A24, A25, A26, A27, A28, A29, A30	29
Experimental model	A12	1
	Total	**30**

When Table 7 is examined, it is found that the most study is done in the screening model (f = 29) according to the research model. The distribution of the other model is shown in Table 7.

Table 8. Distribution according to research methods

Research Method	Code	f
Quantitative	A1, A2, A3, A4, A5, A6, A9, A10, A12, A13, A15, A16, A17, A18, A19, A20, A21, A22, A26, A27, A28, A29	22
Qualitative	A7, A8, A11, A14, A23, A24, A30	7
Mixed	A25	1
	Total	**30**

When Table 8 is examined, it is determined that the most studies are made by quantitative method (f = 22) according to the research method. The distribution of other methods is given in Table 8.

Table 9. Distribution according to research results

Research Results	Code	f
Insufficient time	A5, A7, A8, A9, A13, A15, A18, A20, A21, A22, A23, A26, A27, A28, A29, A30	16
Lack of tools, equipment and resources	A1, A7, A11, A14, A17, A20, A21, A23, A26, A27, A28, A29, A30	13
Inadequate curriculum	A8, A11, A13, A16, A17, A18, A21, A22, A24, A26, A27, A28	12
Low readiness	A9, A10, A11, A13, A20, A23, A30	7
Teacher qualifications	A11, A12, A14, A15, A16, A18, A19	7
Crowded classes	A3, A5, A7, A9, A11, A25, A30	7
Insufficient textbooks	A13, A14, A18, A22, A23	5
Problems in the evaluation phase	A1, A2, A3, A20	4
insufficient classroom physical facilities	A7, A20, A23	3
Problems in the preparation phase	A2, A4, A16	3
Lack of role model	A6, A25	2
Lack of social studies classrooms	A9, A28	2
Inadequate guidance service	A14, A19	2
Examination system	A15, A28	2
	Total	**85**

When Table 9 is examined, it is found that the most time is insufficient (f = 16) according to the research result. Distribution according to other research results is given in Table 9.

Table 10. Distribution according to research proposals

Research Proposals	Code	f

In-service training	A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A14, A16, A17, A18, A19, A20, A21, A22, A24, A25, A26, A27, A28, A29	24
Tools, equipment and resource support	A1, A4, A7, A8, A9, A10, A11, A16, A17, A18, A19, A20, A23, A26, A27	15
Organizing program and textbooks	A6, A12, A13, A15, A16, A17, A18, A19, A21, A22, A23, A24, A27, A28, A29	15
suitability for student	A4, A5, A6, A10, A14, A16, A19, A22, A23, A24, A26, A28, A29, A30	14
Course hours should be increased	A7, A13, A14, A15, A17, A18, A21, A22, A26, A27, A28, A30	12
Reducing the number of class students	A5, A9, A11, A16, A20, A30	6
Physical conditions should be improved	A7, A9, A13, A14, A23, A27	6
School-family collaboration	A5, A7, A10, A14, A19, A25	6
Creating a social studies class	A7, A14, A16, A28	4
Arrangement of measurement and evaluation	A1, A16, A20	3
Regulation in exam system	A15, A28	2
	Total	**107**

In Table 10, in-service training (f = 24) is the most recommended according to the research recommendations. Distribution according to other recommendations is given in Table 10.

4. Discussion and Conclusion

The prominent problems in research; problems of teaching of the course, problems of program and textbook, problems in teaching of geography subjects and problems encountered in teaching of history subjects.

In literature it is possible to see studies that reach similar results with regard to teaching problems, curriculum and textbook problems (Aydın, 2004; Karasoy, 2004; Köroğlu, 2006; Tahiroğlu, 2006; Yılmaz, 2010a; Alataş, 2010; Yavuz, 2010; Akdeniz & Kapıcıoğlu, 2011; Akşit, 2011; Tangülü & Çıdacı, 2014; Akmehmetoğlu, 2014; Yener, 2014; Memişoğlu & Köylü, 2015; Gönenç & Açıkalın, 2015; Karaca, 2017; Tonga, 2017; İbrahimoğlu, 2018; Tuncer, 1999; Kırtay, 2007; Sağlam, 2014; Akdeniz, 2008; Ekici, 2018; Baydar, 2009; Arslantaş, 2006).

There are similar studies related to the problems experienced in the teaching of history subjects in social studies course (Salik, 2007; Karakök, 2011; Aktaş, 2010; Sagay, 2007). There are similar studies related to the problems experienced in the teaching of history subjects in social studies course (Yuvacı, 2018; Göç, 2008; Akşit, 2016; Ünal, 2012).

The most academic thesis about the problems and solutions of social studies teaching was done in 2006, 2007 and 2010. There were no dissertations in 2005, 2013 and 2015. The number of researches increased between 2006-2011. The university with the highest number of dissertations on the subject of the research is Atatürk University and Selçuk University. When we look at the universities where theses are made, an interesting result emerges. There are fewer studies in Istanbul, Ankara and Izmir, both in established universities and in provinces with high number of universities. The highest number of dissertations was conducted in the Central Anatolia (Iç Anadolu) Region and the least number of studies were conducted in the Mediterranean Region. When the sample regions are examined, the study in the Mediterranean (Akdeniz) Region is scarce and decreases the power of generalization. The more regions the samples address, the more generalization power is thought to increase.

The majority of graduate theses are master's theses. Two of the 30 theses are doctoral theses and the others are master's theses. It is seen that there are not enough doctoral studies and after 2016 doctoral studies started. Most of the researches were prepared by screening model. One of the 30 theses is experimental model and the others are screening model. Most of the theses were prepared by quantitative method. 22 of the 30 theses were designed with quantitative, 7 with qualitative and 1 with mixed method. It is thought that it will be more beneficial to increase the experimental researches about the problems encountered in social studies teaching. In addition, action researches that focus on problems and solutions can be recommended.

In the results of the research theses, it was revealed that most time and course hours, tools, resources and curriculum were insufficient. In the literature, there are studies that reach similar conclusions about the lack of time (Arslantaş, 2006; İncekara, 2011; Çalışkan, 2010; Işık, 2011, Akdeniz & Kapıcıoğlu, 2011; Memişoğlu & Köylü, 2015; Gönenç & Açıkalın, 2017), lack of equipment and resources (Işık, 2011; Yılmaz & Tepebaş, 2011; Memişoğlu & Köylü, 2015; Gönenç & Açıkalın, 2017) and insufficient curriculum (Arslantaş, 2006; Işık, 2011; Memişoğlu & Köylü, 2015; Tangülü & Çıdacı; 2014; Tuncer, 1999; Kırtay, 2007; Sağlam, 2014; Akdeniz, 2008; Ekici, 2018; Baydar, 2009).

In the research theses, some suggestions are made such as in-service training, tools, equipment and resource support, arrangement of program and textbooks, appropriate course teaching and increasing the hours of the course. The recommendations in many studies in the literature coincide with our research (Arslantaş, 2006; Çalışkan, 2010; Işık, 2001; Memişoğlu & Köylü, 2015).

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Turkish as a Foreign Language Learners' Language Learning Skills Related Problems[1]

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ABSTRACT

Number of studies on teaching Turkish as a foreign language (TFL) has increased along with the increasing number of foreign students in Turkey. Turkish is intended to be taught more effectively and efficiently through scientific studies and development of the materials that can be used in teaching process. The problems that are encountered in this process form a basis for scientific studies and material development. Detecting such problems enables production of researches on lessening and eliminating the problems, finding solutions, and providing recommendations. In this sense, it is important to detect the problems related to language learning skills in teaching TFL. Therefore, it is aimed to detect the problems of the TFL learners related to language learning skills in this study. For this purpose, the data were collected with a form consisting of open-ended questions and the form was filled in by B1-B2 level learners studying Turkish at Turkish Language Teaching Research and Application Center at Sakarya University. The data were analyzed through content analysis. Learners' reading, listening, speaking, and writing skills related problems as well as the ones related to learning grammar rules and new words are presented under themes and subthemes as the results of the study.

Keywords:
Teaching Turkish as foreign language, language skills, learning grammar, learning words, learning anxiety

1. Introduction

Foreign language teaching comprises teaching vocabulary along with grammar and their effective use in listening, reading, speaking, and writing skills. Language teaching constitutes a whole with grammar rules, vocabulary and language skills. As Genç (2017) stated, knowing a foreign language is not solely expressing self and/or understanding others, but integrating these with listening, reading, and writing skills. Competence in a language is evaluated by the use of reading, listening, speaking, and writing skills (Güneş, 2013; Lüle Mert, 2014). Lack of grammar and vocabulary knowledge prevents the full use of language skills. Grammar and vocabulary knowledge that is not put to use with language skills cannot be learned thoroughly.

Learners state that they mostly know the rules but fail to use them in language learning. This expression requires considering the concept of functional language knowledge that emphasizes the functional aspect of language, features semantic items and deals with linguistic competence (Oflaz, 2010; Peçenek, 2008). As Genç (2017) stated, functional language knowledge considers the functions of semantic, morphemic, and phonemic items in terms of their contributions to language. In order to achieve functionality, language items should be handled as a whole with their semantic, morphemic and use of language aspects (Larsen-Freeman,

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2011). Activities for language use should be included in teaching process particularly for preventing what is learned from being forgotten (Kara, 2010). It is also important to bring in "communicational competence" in activities to achieve language competency (Aktaş, 2005; Pilancı, 2009).

Learners of a foreign language go through a process different from the process of acquiring their native language. In this process, they learn new rules and new words, and experience listening, reading, writing, and speaking skills all over again.

Listening and reading are important receptive skills in terms of language exposure. Learners learn new language rules and words through these skills. Speaking and writing skills are important productive skills that help put what is learned into use. The grammar rules that are not used with speaking and writing skills remain as theoretical knowledge for learners.

Listening —an important skill for understanding a language while learning it— plays a key role in learning a foreign language and is considered as the core of foreign language learning (Rost, 2011; Vandergrif, 2007). Considering learners, they perceive the listening in a foreign language as a difficult skill and fail to fully achieve this skill effectively (Berne, 2004; Graham, 2006). Reading skills —defined as a process of vocalization of written or printed signs according to predetermined rules and establishing an interpretation process that requires interaction between the writer and the reader (Akyol, 2006)— are also important in understanding and learning a new language. Reading skills require mental and physical effort for learners of foreign language in order to understand and vocalize a text.

Speaking skill which is needed and utilized mostly for communication can be defined as conveying emotions, thoughts and information through a language consisting of voices (Aktaş & Gündüz, 2001; Demirel, 1999). In this respect, speaking can be considered as a physical and mental process (Erdem, 2013). Speaking a language apprehensibly by learners is probably one of the most important skills of foreign language teaching (Erdem, Şengül, Gün & Büyükaslan, 2015). For this reason, foreign language learners are expected to acquire effective speaking skills. According to Chenoweth and Hayes (2001), writing skills take a long time and are hard to acquire, so it may be an effortful experience. According to Çakır (2010), learners and teachers experience the biggest challenges in writing skills. According to Barkaoui (2007: 44), the process of writing in a foreign language is affected by several factors such as linguistic, affective, and sociocultural ones, and this fact is among the reasons why writing in a foreign language is a demanding and complicated process. It is stated that TFL learners also have problems and difficulties in writing skills too often for similar reasons (Ak Başoğul & Selcen Can, 2014; Genç, 2017). The purpose of teaching writing skills to the TFL learners is to enable them to write out their emotions and thoughts in compliance with the language properties of Turkish in a planned way (Tiryaki, 2013).

Grammar functions as a tool for correct and effective use of language skills in the process of learning a foreign language. The reason for teaching grammar is to have learners comprehend the language they are learning (Genç, 2017). In this sense, as Derman (2010) stated, teaching grammar is of vital importance. Grammar should not be handled as a separate field where rules are memorized, but as a whole together with other language skills where rules are implicitly presented (Göçen, 2019). In this process, it is important to carry out grammar teaching along with other language skills and activities (Eroğlu & Sarar Kuzu, 2014; Göçen & Okur, 2013; Sağır, 2002). For this, methods revealing the functional aspect of grammar should be employed (Dik, 1979; İşcan, 2007).

Words function as tools for conveying emotions, thoughts, wishes, and ideas while learning a foreign language. It is important for learners to have sufficient vocabulary knowledge for effective use of language skills because, as Genç (2017) stated, conveying thoughts starts at word level; words turn into sentences, and sentences turn into structures that constitute paragraphs. While the similarities among languages facilitate learning a foreign language and vocabulary, the weak relationship among languages generally leads to differentiation of vocabulary, and learners may need to obtain information on the meanings/uses of words all over again (Odlin, 1989; Türkoğlu, 2004).

Learners are expected to have problems related to learning and using the language while learning a new language. The fact that competence in foreign language teaching may vary significantly among individuals (Açık, 2008) makes us think that the problems that learners encounter in the language learning process may also vary. It is important to detect these problems in order to ensure effectiveness in language teaching. As Açık (2008) states, it is required to carry out assessment, identify the problems clearly, discuss them and offer solutions in order to achieve the purpose of language teaching. There are studies for identifying the problems related to teaching TFL and it is found in these studies that the problems related to the matters such as program, teacher, method, teaching equipment, material use in the related field are indicated and solutions are offered. Some of these studies are as follows: Açık, 2008; Akkaya & Gün, 2016; Biçer, Çoban & Bakır, 2014; Bulut, Kanat Soysal & Gül Çiçek, 2018; Bülbül & Güven, 2017; Candaş Karababa, 2009; Chang & Kalenderoğlu, 2017; Derman, 2010; Durmuş, 2013; Er, Biçer & Bozkırlı, 2012; Kara, 2010; Maden & İşcan, 2011; Moralı, 2018; Mutlu & Ayrancı, 2017; Özdemir & Arslan, 2018; Özyürek, 2009; Yılmaz, 2015. Besides these, there are also studies where problems are described by focusing on a single subject area or several of them for teaching TFL. Some of them are: Boylu, 2014; Kahraman, 2018; Kaldırım & Degeç, 2017; Nurlu & Kutlu, 2015; Tiryaki, 2017; Tüm, 2014. There are also studies employing error analysis in order to reveal the TFL learners' problems: Adalar Subaşı, 2010; Ak Başoğul & Selcen Can, 2014; Bölükbaş, 2011; Büyükikiz & Hasırcı, 2013; Çerçi, Derman & Bardakçı, 2016; Çetinkaya, 2015; Fidan, 2019. When these studies are examined, it is found that generally a single subject area, study group of single nationality or a single language level was taken for examination. Among them, the number of studies conducted with Arab learners on writing skills is the highest. However, when it comes to teaching TFL, problems should also be identified for the language learners from different nations for reading, listening, speaking, and writing skills, and for grammar and vocabulary. There are no studies that handle all these skills all together. Also, it is found that there are limited number of studies on grammar learning problems related to teaching of TFL and there are not any studies specifically on vocabulary learning problems. Therefore, a study that comprise all language learning skills as reading, listening, speaking, writing, grammar, and vocabulary including different learner characteristics is needed. In this regard, it is aimed to answer the following subquestions based on the research question "What are the problems of the TFL learners in language learning skills?" within the scope of this study:

- What are TFL learners' problems in reading skill?
- What are TFL learners' problems in listening skill?
- What are TFL learners' problems in speaking skill?
- What are TFL learners' problems in writing skill?
- What are TFL learners' problems in grammar learning?
- What are TFL learners' problems in learning new words?

2. Method

2.1. Research Design

Phenomenology —one of the qualitative research methods— is employed in this study to identify TFL learners' problems related to reading, speaking, writing skills, and grammar and vocabulary learning. As Yıldırım and Şimşek (2013) stated, phenomenology focuses on the phenomena people are aware of, but unable to fully understand.

2.2. Study Group

251 learners in total learning TFL at B1 and B2 levels formed the study group. Distribution of learners by language levels is as follows:

Table 1. Distribution of the Study Group by Language Levels

Level	Frequency
B1	120
B2	131
Total	251

According to Table 1, it was found that language levels of the learners in the study group are close to one another. Distribution of learners by gender is as follows:

Table 2. Distribution of the Study Group by Gender

Gender	Frequency
Male	122
Female	129
Total	251

According to Table 2, it was found that the numbers of males and females in the study group are close. Distribution of learners by language level and gender is as follows:

Table 3. Distribution of the Study Group by Language Level and Gender

Gender	B1	B2	Total
Male	62	60	122
Female	58	71	129
Total	120	131	251

As seen in Table 3, there is a balance between the number of males and females under language levels. Distribution of learners by age is as follows:

Table 4. Distribution of the Study Group by Age

Age Range	Frequency
17-20	138
21-25	54
26-30	25
31-43	8
Not stated	26
Total	251

According to Table 4, majority of learners in the study group are between 17-20 years old. Distribution of learners by country is as follows:

Table 5. Distribution of Learners in the Study Group by Country

Country	Frequency
Afghanistan	16
Albania	3
Bangladesh	3
Benin	1
Burkina Faso	1
Burundi	2
Algeria	1
Chad	5
Democratic Republic of the Congo	2
Indonesia	60
Morocco	4
Ivory Coast	2
Palestine	9
The Gambia	1
Guinea	2
South Sudan	1
Georgia	1
India	1

Iraq	25
Iran	4
Italy	1
Cameroon	2
Montenegro	2
Kazakhstan	17
Kenya	1
Kyrgyzstan	3
Kosovo	1
Madagascar	1
North Macedonia	1
Malaysia	1
Mali	2
Egypt	1
Mongolia	1
Moldova	2
Myanmar	1
Niger	1
Nigeria	1
Central African Republic	1
Pakistan	3
Russia	1
Senegal	1
Sierra Leone	1
Somali	5
Sudan	6
Syria	8
Tajikistan	2
Tanzania	3
Thailand	4
Tunisia	2
Turkmenistan	1
Uganda	1
Jordan	5
Yemen	6
Not stated	18
Total	251

According to Table 5, it was found that most learners in the study group came from African and Asian countries.

2.3. Data Collection and Analysis

A form that consists of open-ended questions was used in order to identify TFL learners' problems related to reading, listening, speaking, and writing skills and grammar and vocabulary learning. The form asked learners to state the problems they have related to listening, reading, speaking, writing skills, and learning grammar rules and vocabulary (new words) under different themes. Sufficient time was given to the learners to answer all the questions and the completed forms were collected by the researchers. Only the forms that have been fully completed were included in the study. Learners' responses were transformed into digital format and analyzed under each research question by using Microsoft Office 365 Excel. Following the content analysis, the data were classified under themes and subthemes and presented in tables. To ensure reliability, expert opinion was sought for the themes and subthemes. To ensure validity, extracts from the learners' responses have been included in the tables.

3. Findings

In this study, TFL learners expressed their problems related to reading, listening, speaking, and writing skills, and grammar and vocabulary learning. The following table states the number of problems expressed by the learners:

Table 6. Number of Problems Related to Language Learning Skills

Skills	Reading Skill	Listening Skill	Speaking Skill	Writing Skill	Grammar Learning	Vocabulary Learning
Problems	274	337	237	247	167	230

According to Table 6, the number of problems (from highest to lowest) related to the language learning skills expressed by TFL learners is: Listening skill, reading skill, writing skill, speaking skill, vocabulary learning, grammar learning. Accordingly, it was found that learners expressed more problems related to the listening and reading skills compared to other areas of comprehension skills. While learners mentioned listening skill as the most problematic, they regarded the grammar learning as the least problematic one.

3.1. Findings and Comments on TFL learners' Problems in Reading Skills

Reading skills related problems of TFL learners were analyzed. Their problems related to the reading skills were classified under the following themes:

Table 7. Themes on Reading Skills Related Problems

Themes	Frequency
Problems Related to Comprehension	111
Linguistic Problems	12
Problems Related to Reading Text	81
Problems Related to the Action of Reading	49
Problems Originated in Learners	7
Problems Related to Teaching Process	14
Total	274

According to Table 7, learners expressed the highest number of reading skills related problems under the theme "Problems Related to Comprehension". In addition, learners frequently expressed problems under the themes "Problems Related to Reading Text" and "Problems Related to the Action of Reading".

The problems expressed by TFL learners related to the reading skills were classified under the following subthemes:

Table 8. Themes and Subthemes Related to the Reading Skills

Themes and Subthemes	Example	Frequency
Problems Related to Comprehension		**111**
Unknown rules	Reading a book is too difficult, because there are rules in it, and we haven't learned these rules. (S72/B2)	21
Words with figurative meaning	There are too many figurative meanings in Turkish. Therefore, I can only read but I cannot understand the subject/text. Many words are too far from their basic meanings. (S146/B1)	13
Long words	Sometimes, I cannot understand the long words. (S185/B2)	4
New suffixes	Some suffixes are unfamiliar. (S2/B2)	3
Unfamiliar words	There are too many words I don't know. I must translate them one by one. (S14/B2)	62
Difficult words	There are very difficult words in some reading texts. (S174/B1)	8
Linguistic Problems		**12**
Differences in language structures	My language and Turkish are quite different from each other. (S101)	2

Non-existence of some Turkish letters in L1	Some letters in Turkish don't exist in the Latin alphabet: ğ, ü, ı, ö. (S9)	7
Difference of logic in Turkish	I think the most important problem is the logic. For example, Turkish logic is quite different for Arabic learners. (S2/B2)	3
Problems Related to Reading Text		**81**
Failing to understand the relationship between the text and the question	I understand the text well, but the comprehension questions are different. There are too many synonymous words in the questions. (S135/B1)	3
Text length	I lose too much time, because the texts are too long. (S115)	22
Text difficulty	Sometimes, texts are too difficult and I have to read them a couple of times to understand. Sometimes, I cannot understand them at all. (S25)	30
Inappropriateness for the level	I don't have problem in reading very much while learning Turkish, but texts are difficult for the learners at B1 and B2 levels. (S3/B2)	9
Difficult Questions	Questions are confusing and difficult. (S95/B1)	4
Insufficient time	Time is too short. Sometimes, I am pinched for time in answering the comprehension questions. (S114/B2)	13
Problems Related to the Action of Reading		**49**
Suffixes	Too many suffixes are used in Turkish. Therefore, reading is a bit challenging. (S24)	1
Inability to read fast	"Reading" is a bit difficult for me while learning Turkish, because I read a bit slowly. If I read fast, I make mistakes. (S136)	10
Difficulties in Pronunciation	For me, pronunciation is difficult. (S101/B1)	24
Long words	I cannot read long words. (S19/B2)	12
Unfamiliar words	There are a lot of new words. I must use a dictionary all the time while reading. (S103/B1)	2
Problems Originated in Learners		**7**
Lack of attention	I am careless. (S100)	2
Reading Anxiety	I can read texts alone, but I feel a bit nervous when I read them in the class. (S170)	2
Lack of reading practice	I must read more texts and paragraphs, but I don't do it. (S14)	3
Problems Related to Teaching Process		**14**
Differences between the contents of lessons and exams	The words used in the exam are not taught by the teachers in the class. (S44)	14
Total		274

According to Table 8, the TFL learners have the highest number of reading text related problems under the subtheme "Existence of new words".

3.2. Findings and Comments on TFL learners' Problems in Listening Skills

The problems of TFL learners related to listening skills were analyzed. Learners' problems related to listening skills were classified under the following themes:

Table 9. Themes Related to the Problems in Listening Skills

Themes	Frequency
Problems Related to Comprehension	37
Linguistic Problems	14
Problems Related to Listening Text	165
Problems Related to Speaker	70
Problems Originated in Learners	15
Problems Related to Teaching Process	36
Total	337

According to Table 9, TFL learners expressed the highest number of listening skills related problems under the theme “Problems Related to Listening Text”. Additionally, learners frequently expressed problems under the themes “Problems Related to Speaker” and “Problems Related to Comprehension”.

TFL learners’ problems related to listening skills were classified under the following subthemes:

Table 10. Themes and Subthemes Related to the Problems in Listening Skill

Themes and Subthemes	Example	Frequency
Problems Related to Comprehension		**37**
Unknown rules	New rules are difficult. For example, we can use some grammar knowledge in writing, reading, and comprehension, but it is different when it comes to listening. It is hard to understand. (S2/B2)	4
Lack of vocabulary knowledge	Listening is difficult for me because I don’t know a lot of words. (S236/B2)	7
Long words	I don’t understand long words while listening. (S19/B2)	3
Unfamiliar words	There are many new and different sentences. Therefore, I can generally understand very few words. (S84/B1)	24
Difficult words	Listening is the most difficult skill for us because words are hard to understand when there are semi-figurative, synonymous or antonymous words. (S240/B2)	6
Linguistic Problems		**14**
Differences in daily language	I have a lot of problems in listening. For instance, I can understand very well when the teachers at school speak, but their speech is quite different from the Turkish spoken in daily life. (S3/B2) I can listen and understand the Turkish teacher, but I cannot understand Turkish people. (S93/B1)	8
Accent differences	There are differences among traditional accents in Turkish. (S86/B1)	5
Difference of logic in Turkish	The logic in our language is quite different. (S2/B2)	1
Problems Related to Listening Text		**165**
Pace of listening input	My Turkish friend talks too fast. (S123/B1) I can understand only a few words or sentences in exams. (S246/B2)	95
Complicated listening texts	It is generally complicated. (S189/B2)	3
Differences in subjects	For example, we can understand the texts about technology, health or family, but sometimes a text about GMO (for example) is given in the exam. (S82/B2)	6
Text length	Listening is too long. (S209/B1)	5
Texts inappropriate for the level	Listening texts are not appropriate for our level. Turkish is spoken in the countries of some students, but it is difficult for us as Africans. (S44/B2)	2
Text difficulty	Listening texts are difficult. (S111/B2)	18
Unclarity of questions	Questions. (S8/B2)	4
Incomprehensible questions	Answers of the listening questions were not provided. I didn’t understand the questions. (S43/B2)	6
Length of questions	I generally understand everything and listen well, but the listening questions in exams are too long. (S75/B1)	1
Difficulty of questions	Questions are difficult, and words with the same meaning are used. (S124/B1)	3
No revision	Sometimes, I need to listen more than once, but it isn’t possible. (S29/B2)	5
Lack of time	I need more time to understand the listening texts. (S119/B2)	17
Problems Related to Speaker		**70**
Pace of the speaker	Sometimes, I don’t understand the people who speak fast in a market or shopping center, and I say “Please, say it again.” (S25/B2)	44
Misarticulation	I think some teachers speak in a way that is hard to understand. (S26/B2)	10

Volume of speakers' voice	Because they speak like they are murmuring. I can't hear. (S123/B1)	6
Differences in pronunciation	While learning Turkish, I can't understand some words in "listening" due to the manner of pronunciation. (S23/B2)	10
Problems Originated in Learners		**15**
Failing to pay attention	I can't pay attention to words. (S178/B1)	5
Failing to remember what is listened	Some people can't remember a listening text well. I'm not good at remembering it, either. (S234/B2)	1
Failing to form an interaction	I don't speak with and listen to people regularly, so I have problems. (S200/B2)	2
Problems Related to Teaching Process		**36**
Differences between the contents of lessons and exams	Listening questions are quite simple in the class. But they are a bit harder in the exam. (S46/B2)	15
Lack of listening practice	We cannot make any progress; we only listen to texts from the book. We listen to them, but we cannot understand. We still don't know how to answer the questions easily. (S104/B2) It would be better if there is more listening practice in the courses. (S211/B1) Listening practice should be made once every day. (S240/B2)	21
Total		337

According to Table 10, TFL learners expressed the highest number of problems under the subthemes "Pace of listening input"" and "Pace of the speaker".

3.3. Findings and Comments on TFL learners' Problems in Speaking Skills

TFL learners' speaking skills related problems were analyzed. The problems of learners related to the speaking skills were classified under the following themes:

Table 11. Themes Related to the Problems in Speaking Skills

Themes	Frequency
Problems Related to Expression	25
Linguistic Problems	10
Problems Related to Anxiety and Excitement	27
Problems Related to the Action of Speaking	19
Problems Related to Speaking Text	10
Problems Related to Language Use	45
Problems Originated in Learners	43
Problems Related to Teaching Process	46
Total	225

According to Table 11, learners expressed the highest number of speaking skills related problems under the theme "Problems Related to Teaching Process". Besides, learners frequently expressed problems under the themes "Problems Related to Language Use" and "Problems Originated in Learners".

TFL learners' problems related to speaking skills were classified under the following subthemes:

Table 12. Themes and Subthemes Related to the Problems in Speaking Skills

Themes and Subthemes	Example	Frequency
Problems Related to Expression		**31**
Failing to use academic language	I can speak only a little in academic matter. (S25/B2)	6
Lack of vocabulary knowledge	I still don't know many words for speaking well. (S102/B2)	15
Failure in self-expression	I still can't express myself. (S38/B2)	4
Not knowing the context of conversation	I know a lot of words, but when and in which context should I use them? (S29/B2)	5
Failing to speak like a native speaker	I can't speak like Turkish people. (S93/B1)	1
Linguistic Problems		**10**

Differences in language structures	Sentence structure is different from my native language. Therefore, I feel like I must think twice before speaking. (S24/B2)	8
Differences in daily language	The Turkish language I use in daily life and the one I learn in the lessons are a bit different, so I sometimes cannot understand easily. (S244/B2)	2
Problems Related to Anxiety and Excitement		**27**
Getting excited	I cannot speak due to anxiety. (S195/B2)	4
Getting into panic	I get into panic, because nothing comes to mind due to panic when I need to find an answer on a topic. (S205/B1)	2
Experiencing exam anxiety	I experience anxiety too much in speaking exams. They ask questions to all students. Everybody speaks, so I get excited. (S177/B1)	7
Getting stressed	Sometimes, I can't give an answer because of stress. (S109/B2)	5
Being afraid of making mistakes	Speaking is the biggest problem for me. I want to speak, but I don't want to make a mistake. I want to talk to my friends at the dormitory, but I only give short answers due to being afraid of making a mistake. (S211/B1)	9
Problems Related to Action of Speaking		**19**
Failing to speak fast	I still cannot speak fast. (S19/B2)	8
Failing to pronounce words	I pronounce front vowels as back vowels, back vowels as front ones. (S48/B2) My pronunciation is bad. (S178/B1)	6
Having difficulties in pronunciation	I cannot speak Turkish due to having difficulty in pronouncing the words. (S227/B2)	5
Problems Related to Speaking Text		**10**
Difficult topics	It is hard to speak on some topics. For instance, "Where can I travel in summer holiday? Can I give an advice?" I have just come to Turkey. I haven't travelled around Turkey yet. (S139/B1)	3
Difficult questions	Some questions are difficult. (S167/B1)	2
Lack of time	There are too many questions and not enough time to think. I must give answers instantly. (S190)	5
Problems Related to Language Use		**45**
Failing to use suffixes	I still make mistakes in case suffixes. (S1/B2) It is going better for now, but I still make mistakes, particularly on suffixes. (S9/B2)	6
Failing to use the letters	I pronounce some letters incorrectly while learning Turkish. (S126/B1)	3
Failing to use words	Sometimes, I can't remember words while speaking. (S37/B2)	11
Failing to apply the rules	Speaking is not difficult for me, but I make many mistakes because I still haven't learned most of the grammar rules. (S236/B2)	24
Problems Originated in Learners		**43**
Speaking in native language	All the students in A1 class were my friends. They are Indonesian. I barely spoke Turkish at A1 level. (S204/B1)	4
Thinking in native language	I think in Indonesian in my mind. (S69/B1)	2
Lack of speaking practice	I don't do practice much, so I cannot speak Turkish well. (S58/B2)	12
Being afraid of the teacher	Speaking is not difficult, but some teachers are tough (They don't talk to me or look at me at all...). So, we are afraid of them. (S210/B1)	2
Lack of self-confidence	I am not self-confident, especially while talking to the Turks. (S121/B2)	1
Failing to interact with natives	I barely talk to Turks, because I have few Turkish friends only in the dormitory. (S21/B2) I have a great difficulty in improving my speaking because I don't have any Turkish friends. (S217/B1)	10

Being embarrassed	I only have problems in speaking psychologically. In other words, I feel embarrassed a bit while speaking. (S204/B1)	8
Needing time	I still need to think before I speak. I need time and I cannot say anything directly. (S191/B2)	4
Problems Related to Teaching Process		**52**
Differences between the contents of lessons and exams	The speaking material in the book and the speaking exam are quite different. (S116/B2)	3
Insufficient speaking activities	Speaking activities should be done as in-class practice. (S52/B2) I think speaking courses are not sufficient, we should talk for at least half an hour a day. (S91/B1) We don't practice and there is no speaking club. (S92/B1) Some teachers don't talk to the students at all. They only teach grammar. (S231/B2)	49
Total		237

According to Table 12, the TFL learners expressed the highest number of problems under the theme "Insufficient speaking activities".

3.4. Findings and Comment on TFL learners' Problems in Writing Skills

TFL learners' writing skills related problems were analyzed. The problems of learners related to writing skill were classified under the following themes:

Table 13. Themes Related to Problems in Writing Skills

Themes	Frequency
Problems Related to Expression	16
Linguistic Problems	17
Problems Related to Language Use	74
Problems Originated in Learners	11
Problems Related to Teaching Process	30
Problems Related to the Action of Writing	25
Problems Related to Writing Text	74
Total	247

According to Table 13, learners expressed the highest number of writing skills related problems under the themes "Problems Related to Language Use" and "Problems Related to Writing Text". In addition, learners frequently expressed problems under the themes "Problems Related to Teaching Process" and "Problems Related to the Action of Writing".

TFL learners' problems related to writing skills were classified under the following subthemes:

Table 14. Themes and Subthemes Related to Problems in Writing Skills

Themes and Subthemes	Example	Frequency
Problems Related to Expression		**16**
Failing to write in academic language	I'm good at writing, but I have problems with writing in academic language. (S26/B2)	3
Lack of vocabulary knowledge	I don't know many words. (S172/B1)	8
Failure in self-expression	I can write but I cannot fully express myself. (S13/B1)	5
Linguistic Problems		**17**
Differences in alphabet	Indonesian alphabet is quite different from the Turkish one, this causes a problem. (S11/B1) I had a lot of problems in writing and I'm still having them because the alphabet I learned is Arabic. I have difficulty in learning new letters. (S75/B1)	10
Differences in language structures	Word order in my language is just the opposite. Verbs are at the end of a sentence in Turkish, so I still can't get used to Turkish. (S182/B1)	4

Difference of logic in Turkish	Logic of Turkish sentences is quite difficult for me. (S186/B2)	3
Problems Related to Language Use		**74**
Failing to use suffixes	I get confused while writing the words, because I know the words to be used, but I don't know the case suffixes well. (S179/B1) I still get confused in using the demonstrative suffix. (S191/B2)	15
Failing to use letters	I sometimes confuse the letter "s" with "ş", "u" with "ü" and some other letters. (S93/B1)	6
Failing to use words	I can't use new words in writing, I cannot use them even if I memorize them. (S19/B2)	17
Failing to apply the rules	I know the grammar rules, but I can't apply them in writing. (S33/B2) I know the words, but sometimes I confuse the grammar rules and write incorrectly. (S132/B1)	28
Not knowing the writing strategy	While writing on a topic, I don't know what word or sentence to begin with in the introduction section. (S3/B2) We haven't learned the forms of writing. (S186/B2)	7
Failing to use new words	I can't write new words. (S99/B1)	1
Problems Originated in Learners		**11**
Lack of attention	I just need to be more careful in writing. (S230/B2)	4
Getting excited	I get excited while writing something. (S178/B1)	1
Lack of writing practice	I need more practice. (S69/B1)	3
Needing time	It's okay when I'm home; I comfortably write whatever I want, but I need time to write a good and proper composition. (S9/B2)	3
Problems Related to Teaching Process		**30**
Differences between the contents of lessons and exams	In the exam, passive voice and necessitative mood were given together in a text. We didn't learn them that way in the course; this is difficult. (S89/B1)	2
Lack of feedback	When I write something, I don't understand the reasons of my mistakes. There is no feedback. That is to say, how am I supposed to avoid these mistakes? (S29/B2) Some teachers don't check our paragraphs. (S117/B2)	4
Lack of material	Materials other than the book are needed for writing practice. The coursebook is not enough. (S61/B2)	1
Lack of writing activities	I think teachers should give more writing homework. (S77/B1) That would be great if the teacher gives us one page of writing homework a day. (S81/B2) In fact, we don't write a lot in the course. (S170/B1)	23
Problems Related to the Action of Writing		**25**
Failing to form a sentence accurately	I still get confused while making a sentence. (S156/B1) I mean I still can't write a long and complicated sentence. (S186/B2)	14
Failing to write fast	For example, I can't write fast. (S147/B1)	3
Making spelling mistakes	I make a lot of spelling mistakes. (S23/B2)	8
Problems Related to Writing Text		**74**
High amount of words	We need to write 150 words in B1 exam. This is too much. (S220/B1)	20
Difficult topics	Easier writing topics can be given. (S163/B1)	8
Topics inappropriate for the level	The topics require higher language levels. (S131/B1)	2
Incomprehensible questions	Writing is good, but sometimes I can't understand questions or instructions. (S187/B2)	2
Lack of time	I need too much time for writing. (S119/B2)	42
Total		247

According to Table 14, TFL learners expressed the highest number of problems under the subthemes "Failing to apply the rules" and "Lack of writing activities".

3.5. Findings and Comments on TFL learners' Problems in Grammar Learning

TFL learners' grammar learning related problems were analyzed. These problems were classified under the following themes:

Table 15. Themes Related to Problems in Grammar Learning

Themes and Subthemes	Frequency
Problems Related to Form	25
Problems Related to Course Material	14
Linguistic Problems	15
Problems Related to Language Use	30
Problems Originated in Learners	26
Problems Related to Teaching Process	57
Total	167

According to Table 15, learners expressed the highest number of grammar learning related problems under the theme "Problems Related to Teaching Process". In addition, learners frequently expressed problems under the themes "Problems Related to Language Use" and "Problems Originated in Learners".

TFL learners' problems related to grammar learning were classified under the following subthemes:

Table 16. Themes and Subthemes Related to Problems in Grammar Learning

Themes and Subthemes	Example	Frequency
Problems Related to Form		**25**
Exceptions in rules	I learn new rules and there is an exception to every rule. (S244/B2)	3
High number of rules	Learning a language is not easy and it is important, but there are too many rules in Turkish grammar. (S132/B1)	10
Confusing rules	Grammar is particularly good for us, but I confuse the rules a bit. (S170/B1)	12
Problems Related to Course Material		**14**
Lack of grammar in course books	There is little grammar in the course book. (S133/B1)	5
Difficulty of course books	There are many Turkish books, but our book is difficult. (S145/B1)	2
Lack of supplementary materials	The book is not sufficient. I will learn the rules from the teachers or other books. Sometimes, I learn them from YouTube. (S102/B2)	7
Linguistic Problems		**15**
Differences in alphabet	There are new letters in Turkish. (S134/B1)	4
Differences in language structures	Sentence structure is exact opposite to that of Italian. Language structures are different. (S9/B2)	9
Difference of logic in Turkish	Grammar is taught from the viewpoint of Turks. (S49/B1)	2
Problems Related to Language Use		**30**
Failing to apply the rules in a sentence	It isn't hard to understand the rules while learning Turkish, but it is difficult to apply them in sentences. (S101/B1)	7
Failing to apply the rules in daily life	Although I'm at B2, I still cannot understand the daily language outside when I hear it. I cannot use it. (S52/B2) I can't use the rules well in my daily life. (S75/B1)	5
Failing to apply the rules	I don't know how, where, and when to use some grammar rules. (S11/B1) I don't know what grammar rules to use while speaking. (S93/B1) I know how to write, but I don't know how to use the rules. (S180/B1)	18
Problems Originated in Learners		**26**
Not being careful	I'm not careful. (S172/B1)	4

Failing to memorize the rules	I have difficulty in memorizing. (S140/B1)	5
Lack of practice	I don't practice grammar. I don't use it. (S66/B1)	6
Forgetting	I easily forget the grammar rules I have learned. (S22/B2)	4
Needing time	I think grammar is easy, but I need more time to understand. (S126/B1)	7
Problems Related to Teaching Process		**57**
Lack of activities	We didn't use the grammar rules in speaking with my teacher. I don't know how to use the grammar. (S98/B1) We should use every grammar rule in writing, but we don't. (S133/B1) Writing practice was rarely made in the class for the exam. (S157/B1)	15
Failing to understand the rules	I have difficulty in understanding some grammar rules. (S156/B1)	8
Late presentation of the rules	Grammar is easy to understand, but the teachers explain them too late. If we learn grammar rules earlier, we can read texts more easily. It is hard to understand some texts without some rules. (S224/B2)	3
Fast presentation of the rules	Grammar rules are taught too quickly. (S239/B2)	6
Improper presentation of the rules	Some teachers are not good at teaching grammar. Their method is not good. (S8/B2) They don't focus on what I don't understand. (S55/B1)	8
Lack of revision	Revision is of vital importance for students. Or else, we forget easily. (S209/B1)	8
Inadequate number of examples	The necessary examples for the rules are not provided. (S86/B1)	9
Total		167

According to Table 16, the TFL learners expressed the highest number of problems under the subthemes "Failing to apply the rules" and "Lack of activities".

3.6. Findings and Comments on TFL Learners' Problems in Vocabulary Learning

TFL learners' vocabulary learning related problems were analyzed and classified under the following themes:

Table 17. Themes Related to Problems in Vocabulary Learning

Themes	Frequency
Problems Related to Meaning	33
Problems Related to Form	13
Linguistic Problems	12
Problems Related to Language Use	42
Problems Originated in Learners	60
Problems Related to Teaching Process	54
Problems Related to Teaching Method	16
Total	230

According to Table 17, the TFL learners expressed the highest number of vocabulary learning related problems under the theme "Problems Originated in Learners". Also, learners frequently expressed problems under the themes "Problems Related to Teaching Process" and "Problems Related to Language Use".

TFL learners' problems related to vocabulary learning were classified under the following subthemes:

Table 18. Themes and Subthemes Related to Problems in Vocabulary Learning

Themes and Subthemes	Example	Frequency
Problems Related to Meaning		**33**
Polysemy	Words have plenty of meanings, so I have some difficulties. (S38/B2)	14

Difficulty of words	New words are a bit difficult. (S112/B2)	9
Figurative meaning	It is sometimes hard to understand the figurative meanings of words. (S56/B2)	10
Problems Related to Form		**13**
Similarity	I generally confuse the words, especially the words with similar pronunciation. "Telafi etmek-teklif etmek", "mücadele-müdahale" they are very similar. (S9/B2)	5
Exceptional words	There are many exceptional words that don't conform to the rules. (S154/B1)	4
Length of words	Some words are like a sentence, too long. (S239/B2)	4
Linguistic Problems		**12**
Differences between languages	There are many words in Turkish borrowed from other foreign languages, but they don't have the same meaning. (S10/B2) ...because it is quite different from my native language. (S69/B1)	6
Archaic words	Turkish is a rich and vast language. There are age-old words. (S146/B1)	2
Differences in daily language	The Turks in the daily life don't use the new words found in the coursebook. They laugh at us when we use them. (S104/B2) Turks speak Turkish differently from that taught in the course. (S223/B1)	3
Difference of logic in Turkish	Sometimes, I don't get the logic of Turkish language. (S124/B1)	1
Problems Related to Language Use		**42**
Failing to use words in a sentence	It is a bit hard to use the words in a sentence. (S244/B2)	2
Failing to use word in daily life	I can't use the words outside. (S160/B1)	2
Failing to use words while speaking	I have memorized a lot, but I barely use them in speaking. (S121/B2)	9
Not knowing where to use	I don't know the right place of use for new words in sentences. (S172/B1)	4
Not knowing when to use	The most difficult matter is that we can learn words, but we don't know when to use them appropriately. (S2/B2)	4
Not knowing how to use	We don't know how to use some new words. So, we need to be provided with more examples. (S176/B1)	5
Failing to pronounce words	It is hard for foreigners to learn new words for the first time. I cannot pronounce them. (S83/B2)	6
Using wrong words	Sometimes, I use wrong words. (S26/B2)	5
Failing to use words in writing	For instance, when I learn a word, I can't write it properly. (S132/B1)	5
Problems Originated in Learners		**60**
Needing translation	I have to look up in the dictionary all the time. (S22/B2)	4
Failing to memorize	I don't know how to memorize new words. (S98/B1)	14
Confusing the words	Sometimes, I confuse new words a lot. (S114/B2)	2
Failing to learn	There are many new words, but I can't learn them. (S87/B1)	7
Failing to do practice	I need to practice speaking more. (S14/B2)	4
Forgetting	The biggest problem is, of course, forgetting. For example, I have learned and memorized ten new words today. Probably, I will forget some or all of them tomorrow. (S15/B2) I always forget. I memorize all the time, but they don't stick in my mind. (S64/B2)	23
Needing time	I need a long time to recall. (S235/B2)	6
Problems Related to Teaching Process		**54**
Pace of teaching	The teacher should teach more slowly. (S225/B1)	4
Lack of homework	I think we should be given homework every day. That homework should only be about new words. (S79/B2)	7

Lack of practice	We forget fast, because we don't use them in class a lot. (S39/B2) We should practice new words or use the words we memorize in the classroom every day. (S46/B2)	6
Differences between the contents of lessons and exams	There are new and difficult words in the exam. (S88/B1)	15
High number of words	There are many new words. There are words that I haven't heard of. (S87/B1)	12
Lack of guidance on dictionary	I think a good dictionary should be recommended to students by the course teacher. (S48/B2)	3
Lack of revision	We don't revise enough. (S52/B2)	7
Problems Related to Teaching Method		**16**
Avoiding different meanings	Every teacher must teach the synonyms together with new words. They are not taught much. (S216/B1)	2
No use of English	The teacher should know English a bit for expressing the correct meanings. (S205/B1)	2
Providing no vocabulary lists	We are not given anything for new words. It would be better if the list of new words at all levels (A1, A2, B1, B2, C1) were given. Sometimes, we can't find every word in the dictionary. (S81/B2)	3
Providing no examples	I think the best method to teach new words is to use them in sentences (examples). Examples should be given in different contexts. Few teachers do that since the level A1. (S29/B2) Some teachers only give the translation of words. I need examples to learn and memorize new words. (S45/B2)	6
Absence of a plan	There are many new words, but there isn't any instructional plan for them. It would be better if there were a plan. (S182/B1)	3
Total		230

According to Table 18, TFL learners expressed the highest number of problems under the subtheme "Forgetting".

4. Discussion and Conclusion

The problems expressed by learners related to the language skills indicate that language skills are interrelated, and this interrelation is important for learners' use of language.

It has been found that learners expressed more problems —compared to other areas— related to comprehension skills: listening and speaking, respectively. Akkaya and Gün (2016) stated that listening skills are the second most problematic skills for TFL learners.

It has also been found that learners expressed problems related to both the action of reading (reading aloud) and understanding what is read in terms of *reading skills*. In addition, learners expressed problems within the context of language, text, and teaching process. The problems that learners expressed related to the reading skills were classified under the following themes: Problems Related to Comprehension, Linguistic Problems, Problems Related to Reading Text, Problems Related to the Action of Reading, Problems Originated in Learners, and Problems Related to Teaching Process. In regard to *reading skills*, the subthemes under which the TFL learners expressed the highest number of problems are "Unfamiliar words", "Unknown rules", "Words with figurative meaning", "Non-existence of some Turkish letters in L1", "Text difficulty", "Text length" "Insufficient time", "Difficulties in pronunciation", "Long words", "Inability to read fast", "Lack of reading practice", "Differences between the contents of lessons and exams". In the study by Yelok and Büyükikiz (2010), it is stated that learners learning TFL have problems in pronouncing the vowels. Also, it is observed in a study by Chang and Kalenderoğlu (2017) that TFL learners have problems related to pronunciation while reading.

Regarding *listening skills*, the problems expressed by learners were classified under the following themes: "Problems Related to Comprehension", "Linguistic Problems", "Problems Related to Listening Text", "Problems Related to Speaker", "Problems Originated in Learners", "Problems Related to Teaching Process". In addition, the subthemes under which the TFL learners expressed the highest number of problems are

"Unfamiliar words", "Lack of vocabulary knowledge", "Differences in daily language", "Pace of listening input", "Text difficulty", "Lack of time", "Misarticulation", "Differences in pronunciation", "Failing to pay attention", "Lack of listening practice". It is stated in a study by Chang and Kalenderoğlu (2017) that TFL learners have problems in listening and speaking skills due to lack of vocabulary knowledge. Kaldırım and Degeç (2017) noted problems that are similar to those in this study such as accented speech, lack of using idioms and proverbs, lack of vocabulary knowledge, inaudible voice of the speaker, and pace of speaking which are expressed by learners of Turkish. In the study by Kahraman (2018), speaking fast and accented speech are among the problems that are the most frequently expressed by TFL learners.

As for *speaking skills*, the problems that are expressed by learners were classified under the following themes: "Problems Related to Expression", "Linguistic Problems", "Problems Related to Anxiety and Excitement", "Problems Related to the Action of Speaking", "Problems Related to Speaking Text", "Problems Related to Language Use", "Problems Originated in Learners", "Problems Related to Teaching Process". In regard to speaking skills, the subthemes that are the most frequently expressed by TFL learners are "Lack of vocabulary knowledge", "Failing to use academic language", "Not knowing the context of conversation", "Differences in language structures", "Being afraid of making mistakes", "Experiencing exam anxiety", "Getting stressed", "Failing to speak fast", "Failing to pronounce words", "Lack of time", "Failing to apply the rules", "Failing to use words", "Failing to use suffixes", "Lack of speaking practice", "Not interacting with natives", "Being embarrassed", "Insufficient speaking activities". It is also found in the studies focused on TFL learners with different characteristics that they have problems in "articulation" and "pronunciation" (Biçer, Çoban & Bakır, 2014; Candaş Karababa, 2009; Derman, 2010; Kahraman, 2018; Moralı, 2018). In addition, it is observed in a different study that "lack of vocabulary knowledge" is among the problems that TFL learners frequently have with respect to the speaking skills (Kahraman, 2018). The relevant results in different studies indicate that the problems experienced by learners in this study are also encountered by other learners.

In regard to *writing skills*, the problems that are expressed by learners were classified under the following themes: "Problems Related to Expression", "Linguistic Problems", "Problems Related to Language Use", "Problems Originated in Learners", "Problems Related to Teaching Process", "Problems Related to the Action of Writing", "Problems Related to Writing Text". Azizoğlu, Demirtaş Tolaman and İdi Tulumcu (2019) also stated that "problems originated in learners" is among the writing skills related problems that the TFL learners have. The subthemes with the highest number of problems are: "Lack of vocabulary knowledge", "Failure in self-expression", "Failing to write in academic language", "Differences in alphabet", "Failing to apply the Rules", "Failing to use words", "Failing to use suffixes", "Lack of attention", "Lack of writing practice", "Needing time", "Lack of writing activities", "Lack of feedback", "Failing to form a sentence accurately", "Making spelling mistakes", "Failing to write fast", "Lack of time", and "High amount of words". It is concluded in the study by Maden and İşcan (2011) that TFL learners have difficulty in expressing themselves. It is also observed in different studies that TFL learners have problems on such matters as "differences in alphabet" (Açık, 2008; Boylu, 2014; Bölükbaş, 2011; Kahraman, 2018; Nurlu & Kutlu, 2015), "vocabulary knowledge" (Açık, 2008). Ak Başoğul and Selcen Can (2014), and Çerçi, Derman and Bardakçı (2016) also analyzed TFL learners' mistakes in writing and concluded that learners frequently make mistakes in "using suffixes". It is also stated in the studies by Azizoğlu, Demirtaş Tolaman and İdi Tulumcu (2019), and Chang and Kalenderoğlu (2017) that learners' lack of practice in writing and not providing learners with opportunities to write are significant problems. The relevant results in different studies indicate that the problems that the learners in this study have are also encountered by other learners.

In regard to *the grammar learning*, the problems that are expressed by learners were classified under the following themes: "Problems Related to Form", "Problems Related to Course Material", "Linguistic Problems", "Problems Related to Language Use", "Problems Originated in Learners", Problems Related to Teaching Process". TFL learners mentioned the highest number of problems under the following subthemes: "Confusing rules", "High number of rules", "Lack of supplementary materials", "Differences in language structures", "Failing to apply the rules", "Failing to apply the rules in a sentence", "Failing to apply the rules in daily life", "Needing time", "Lack of practice", "Failing to memorize the rules", "Lack of activities", "Failing to understand the rules", "Improper presentation of the rules", "Lack of revision". It is concluded in the study by Büyükikiz and Hasırcı (2013) that learners frequently make grammar mistakes in written expressions. This indicates that learners have problems in learning and applying the rules.

In regard to the *vocabulary learning*, the problems that are expressed by learners were classified under the following themes: "Problems Related to Meaning", "Problems Related to Form", "Linguistic Problems", "Problems Related to Language Use", "Problems Originated in Learners", "Problems Related to Teaching Process", and "Problems Related to Teaching Method". TFL learners express the highest number of problems with respect to vocabulary learning under these subthemes: "Polysemy", "Figurative meaning", "Similarity", "Differences between languages", "Failing to use words while speaking", "Failing to pronounce words", "Not knowing how to use", "Using wrong words", "Failing to use words in writing", "Forgetting", "Failing to memorize", "Failing to learn", "Differences between the contents of lessons and exams", "High number of words", "Lack of homework", "Lack of revision", "Failing to do practice", "Providing no examples", "Providing no vocabulary lists", "Absence of a plan" It is observed in the study by Chang and Kalenderoğlu (2017) that TFL learners have problems related to lack of vocabulary knowledge and failing to memorize words.

It is understood that the problems TFL learners experience while learning the language are related to the characteristics of the language, and the methods, techniques and materials used for teaching. In addition, some problems are originated in learners. Some of these are lack of practice, lack of revision and some other psychological problems. The psychological problems that learners of Turkish face can be listed as follows: Lack of attention (while reading), reading anxiety, concentration problems (while listening), lack of focus, being afraid of the teacher (while speaking), lack of self-confidence, embarrassment, being careless (while writing), feeling nervous, being careless with grammar, and forgetting (words). Several studies have also found out similar problems regarding learning TFL: (Altunkaya & Erdem, 2017; Boylu & Çangal, 2015; İşcan, 2016; Sallabaş, 2012; Sevim, 2014). A deeper look into these studies revealed that learners experience psychological problems mostly while speaking. According to Şen and Boylu (2015), speaking is the most challenging of all skills since it may trigger speaking anxiety. A theme named "problems related to anxiety and excitement" has emerged and this is supported by the aforementioned study. Underneath this theme, learners expressed their problems that have gone under the subthemes of "getting excited", "getting into panic", "experiencing exam anxiety", "getting stressed" and "being afraid of making mistakes".

The problems that learners of Turkish have in language learning process generally constitute the problems of foreign language teaching, as well. It is clearly understood in the studies that learners of a foreign language also have problems in vocabulary knowledge, articulation, encountering different accents, encountering people that speak fast, and failing to understand the expressions with figurative meaning (Goh, 1997; Scales, Wennerstrom, Richard, & Wu, 2006; Stæhr, 2009; Şenel, 2006). Additionally, it has been observed that anxiety, excitement, stress, and attention influence language learning process (Cheng, 2002; Horwitz, 2016; Sellers, 2000; Woodrow, 2006).

5. Recommendations

The problems that are expressed by learners regarding reading, listening, speaking, writing skills, and grammar and vocabulary learning indicate the close relation of the language skills. Lack of grammar and vocabulary knowledge is among the reasons of learners for failing to use the language skills for comprehension and expression purposes. Therefore, it is possible to say that language should be taught ensuring the integrity of knowledge and skills.

"Linguistic Problems" have been stated in all the areas studied. More specifically, the fact that Turkish has letters that don't exist in other languages and the differences in language structures cause problems for learners while learning the language. Besides, learners mentioned that the differences between the language taught in lessons and the one used in daily life are a problem. Learners stated that they cannot use the language in daily life with the rules and words they learn in the class. In this sense, including activities and applications promoting daily use of language in teaching would help learners.

Learners also expressed problems related to actions of reading, speaking, and writing. Learners mentioned that they fail to read fast and pronounce words properly, and make spelling mistakes. Inclusion of more practices by teachers will help lessen such problems.

It is found that learners have problems in all the areas that are handled in the study. These problems are generally focused on lack of language activities and practices, and differences between the contents of lessons and exams. Teachers should focus on the activities for language use in teaching process to provide learners with opportunities to learn outside the class and prepare for exams.

Learners mentioned fewer grammar related problems in listening, reading, writing, and vocabulary learning. This may be interpreted as that learners have more problems related to language use than form. Under the theme "grammar learning", learners mentioned more problems under "Problems Related to Language Use" than "Problems Related to Form". It is inferred from the problems expressed by learners under the subtheme "Problems Related to Language Use" that they are unable to apply the rules and use them in sentences as well as in daily life. An examination of the problems stated under other skills with respect to language use and form revealed that learners particularly expressed problems related to speaking, writing, and vocabulary knowledge in terms of Language Use. Therefore, it is important for the teachers to include activities on daily life rather than the form in order to eliminate these problems.

It is found in most of the areas that are examined in the study that there are also problems originated in learners. These problems are failing to do language practice, carelessness, being anxious, getting excited, and failing to communicate and interact. Teachers should guide learners on their personal problems and give them opportunities to use the language so such problems will be eliminated.

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Internationalization of Education: From Bologna Process to Orhun Exchange Programme

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ABSTRACT

This article aims to introduce the Orhun Exchange Programme implemented by the Turkic Universities Union, and seeks to position it within the broader, historical developments, and it states that the recent trend of internationalization of education is beneficial for the renaissance of the Turkic civilization. In Middle Ages, mobility of students and scholars helped to the formation of the Islamic Golden Age, rise of Turkic civilization on the Silk Road, and then the renaissance and enlightenment in Europe. Recently, the shift of economic and scientific gravity from the West to the East presents new potentials for the Turkic world to turn it into a hub in the increasingly interconnecting world. The Orhun Exchange Programme is a bold step to enable universities of Turkic countries to cooperate in their fields of superiority for a joint development.

Keywords:
Education systems, globalization, student mobility, Turkic civilization, Turkic renaissance

1. Introduction

In 2017, Turkic Council Turkic Universities Union initiated a new exchange programme for students and academics of its member universities. For the academic year 2017-2018, 22 students and 1 academic from 6 universities in Azerbaijan, Kazakhstan, Kyrgyzstan and Turkey benefited from the Orhun Exchange Programme.

In the concluding decades of the 20th century, education entered into a new period of internationalization with the rising globalization. The mobility of students gained importance to raise flexible graduates, who can benefit from the advantages of the globalizing market conditions. It is known that mobility was also seen in Eurasia in Middle Ages. Islamic and Turkic world achieved a high level of civilization by combining new methods with ancient technics and wisdom of China, India, Mesopotamia, Egypt and Greece around the Silk Road. Much praised European renaissance was also an outcome of interconnection of Europe with Asia through scholars' and students' mobility (Hobson 2004, Morris 2010, Frankopan 2015).

The new trend of internationalization of education can also be elaborated into a beneficial mechanism to achieve the further advancement of the Turkic civilization by Turkic Universities Union, which can act as an organization of regional cooperation for education to join the globalization process by combining national and regional priorities.

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This article aims to introduce the Orhun Exchange Programme initiated by the Turkic Universities Union. It gives fresh and original information about this recently launched programme and its background. It is claimed that this programme can be re-evaluated within the broader context of a renaissance for the Turkic peoples. It is argued that some recent developments, such as the shift of the economic gravity from the Atlantic Coast to the East via Turkic republics and achievements of Turkic republics in search for greater prosperity, build the possibility to accomplish a Turkic renaissance. The historical Silk Road had helped to exchange ideas and to accomplish scientific achievements within the Turkic realm. Now, Central Eurasia is gaining in significance, as a result of the end of the Cold War, independence of five more Turkic republics, foundation of joint organizations, such as the Turkic Council, the rise of the East and China's intention to revitalize the Silk Road linking itself to the West again. These changes create a potential for effective regional interconnection and scientific cooperation.

This research is a descriptive review study. In this study first, the historical Silk Road will be mentioned to show the previous achievements on the greater realm of Central Eurasia to prove that exchange of knowledge as a form of internationalization of education is not a novelty for the region. This golden age of scientific accomplishments in the Turkic and Islamic world also demonstrates that exchange of knowledge is a prerequisite for renaissance. The splendour of the Silk Road was based upon interregional trade, and economic interconnection is recently being revived after a long interruption. The current rise of the East with the shift of economic gravity from the West to the East creates new opportunities for the revival of the Silk Road, which will be mentioned in the next section. Then, the contemporary internationalization of education will be described through the example of Bologna Process. The establishment of the Turkic Council and Turkic Universities Union will also be explained, which will be followed by the initiation of the Orhun Process with original data about its aims, responses of member universities and its application.

1.1. Lessons from the Silk Road: Historical Roots of Internationalization

Before modern ages, students were travelling long distances to become disciples of eminent scholars, and they were realizing a, kind of internationalization of education. In the Middle Ages in the realm of Islam young students were visiting faraway madrasas for education following a famous quote attributed to the prophet saying "Seek knowledge, as far as China". In its Golden Age (750-1258), Islam had spread from Morocco to recent Indonesia, Arabic became *lingua franca*, and Islamic scholarship formed the breeding ground of a new civilization (Berkey 2004: 204).

Asia was connected from eastern Mediterranean to China, from Kazan to India, which made Asia not only a vivid area, where exchange of goods was followed by exchange of ideas making Asia the centre of knowledge. Steward Gordon defines the period in his book "When Asia was the World" as follows:

> [F]rom 500 to 1500, Asia was an astonishing, connected, and creative place. (...) It was in Asia that mathematicians invented zero and algebra. Astronomers there tracked the stars more accurately than ever before and invented the astrolabe for navigation. Poets and writers produced literature that still touches the heart. Philosophers generated systems of thinking and justice that influence us today (Gordon 2008: vii).

The interconnection of Asia started even earlier than Gordon mentions, when in the first century BCE China was linked to India and the Roman Empire formed a network of roads between China, Central Asia, the Steppes, Iran and the Near East called the Silk Road.

The Turkic peoples were positioned at the heart of the Silk Road, and cities, such as Kashgar, Samarkand, Herat, Tabriz, Bursa and Istanbul benefitted from this network of roads becoming cultural and economic centres. In the 15th century, Ottoman Empire on the one end of the Turkic world and Timurid realm in Central Asia developed to prominent economic and intellectual centres through interconnection. It was not unusual that apprentices in search of knowledge were visiting the other part of the Turkic world. For example, Ali al-Qushji (in Turkish, Ali Kuşçu), who was born in Samarkand and died in Istanbul (d. 1474), "was a philosopher–theologian, mathematician, astronomer, and linguist who produced original studies in both observational and theoretical astronomy within 15th-century Islamic and Ottoman astronomy" (Fazlıoğlu 2007: 946). He worked under the patronage of Timur's grandson Ulugh Beg, and then served to another Turkic ruler, Uzun Hasan in Tabriz, until finally joining Sultan Mehmed the Conqueror (Fazlıoğlu

2007: 946-947). It is interesting to notice that his tutor, Qadizade al-Rumi (Bursalı Kadızade Rumi) was born in Bursa (ca. 1359), but died in Samarkand (after 1440), who was a teacher of Ulugh Beg (Ragep 2007: 942). The exchange of ideas and amalgamation of views from different corners of the Turkic world relying upon the historical richness of the regional culture helped the Turkic world to contribute to the human civilization. Hence, the revival of regional cooperation will facilitate the renaissance of the Turkic civilization.

The European renaissance was also an outcome of intercultural exchange within a common educational zone. Scholars were travelling in Europe in search of knowledge under different scholars. As de Ridder-Symoens underlines: "The use of Latin as a common language, and a uniform programme of study and systems of examinations, enabled international students to continue their studies in one 'studium' after another, and ensured recognition of their degrees throughout Christendom." (De Ridder-Symoens 1992: 281)

The internationalization of education, however, broke down as a result of the rise of national education systems. The Bologna Process was a step to omit the national delimitation in Europe, which was confronted by resistance of national education systems.

1.2. Central Asia's Relocation to the Economic and Scientific Centre

After centuries-long interruption, the Silk Road is being revived again. The dissolution of the USSR in 1991 opened Central Asia back to the wider world. First Turkey and then immediately other countries opened up their embassies in newly independent Central Asian republics launching their economic and political rapprochement. Post-Soviet countries aimed to join the greater world, which led of the establishment of joint organizations, such as the Turkic Council. Last decades of the 20th century saw economic rise of East Asia, and then in the 21st century China climbed to top with its economic boom making it the second biggest world economy with a prospect to become the biggest world economy replacing the USA.

Recent global developments are for the advantage of the Turkic countries, such as the shift of the world's economic centre of gravity. The Atlantic coast, which used to be the world's economic centre following the colonization process of Western European countries, is shifting from the Atlantic coast to East Asia, which increases the significance of the Turkic Council member countries. According to a research by Quah, the centre of gravity has shifted between 1980 and 2008 from mid-Atlantic to east of Helsinki and Bucharest, and he projected that until 2050 it would further move on to a location between India and China (Quah 2011: 3-9). It should not be forgotten that not only the east-west axis but also developing economies on the north-south axis, such as India and Russia, create a potential for prosperous regional cooperation (Gürbüz 2016: 83-87), and this increases the *centrality of Central Asia* between big economies of East Asia, EU, Russia and India.

In 2013, China announced the "One Belt, One Road Initiative" (OBOR) to revive the Silk Road. China launched projects worth of 1 trillion US$ (Ryder 2017), and it aims "building infrastructure connectivity, and thus boosting free trade and people-to-people exchanges across Asia, Africa and Europe" (China Daily 2017). 68 countries are involved in this initiative with Central Asia at its heart.

Since 1960s, scientific gravity is also shifting from the West to the East with the rise of academic articles published in Japan, China, South Korea and India. East Asian countries entered the top countries with most Science Citation Index Expanded (SCIE) articles, and the relative decline in the USA enhanced the shift. Another noteworthy trend is the rise of collaborative articles published by an international team of authors from institutions in different countries (Zhang et al 2015), which should also be taken into consideration for the sake of scientific cooperation among the Turkic countries.

The shift of economic and scientific centres of gravity will not lead directly to the development of Turkic countries by external changes, if they will not turn into active actors with plans designed to meet the requirements of the recent process and benefit from the shift. Otherwise, on-going globalization will encourage brain drain.

However, the present situation of scientific achievements in Turkic countries is not promising. Only Turkey among the Turkic Council member states could enter the list of Times Higher Education World University Rankings (980 universities in total) with 17 universities, whereas Asia continues to rise and balance the West by entering the list with 289 universities (Times Higher Education 2017). In the QS World University

Rankings 2016-2017 consisting of 916 universities, Turkey is presented by 11, Kazakhstan by 8, Azerbaijan by 3 universities (https://www.topuniversities.com/university-rankings/world-university-rankings/2016).

Another problem for the Turkic Universities Union is the resistance of national education systems, which is a universal problem of internationalization of education.

The main priority of national education is preparing new generations according to national requirements and expectations. However, internationalization of education prioritizes harmonization of education systems to increase global mobility. Although reform is obligatory, national and regional interests need to be kept at the core.

2. Internationalization of Education and Bologna Process as an Example of Regional Scientific Cooperation

Internationalization of education in higher education has become an important concept of education in a globalizing world. Early forms of internationalization of education were realized as forms of "knowledge and student exchange" between education institutions. Today, global student mobility is among the fastest growing operational policies in strategic plans of universities. Student mobility and international learning experience of students are being encouraged by universities, and they are supported by states as part of global competition. Most universities are constantly revising their internationalization strategies with feedback from their graduates (De Wit, 2002: 5; Sowa, 2002; Nunan, 2006).

Internationalization of higher education will augment very rapidly in line with globalization. UNESCO declared that “students pursuing higher education abroad has more than doubled from 1.7 million (1995) to 4.1 million (2013)" (2016: 76). Projections made by the OECD predict that transnational higher education, including the mobility of students, faculty, and institutions, will grow and that international collaborations in academic research will increase (2009: 64). According to the projections for 2030, North America will continue to be a magnet for international students and academics and dominate scientific output by far, but “higher education systems in Asia and Europe will gradually increase their global influence” (OECD 2009: 14).

The Bologna Process initiated by the European Union (EU) is a well-known example of regional higher education reform in response to demands of globalization. The Bologna Process is understood as a “defensive reaction” of Europe regarding “the fierce competition against USA and Asian countries for global supremacy” (Koivula et al. 2009: 184).

It was, however, a challenge for the members of the EU to reform and harmonize their education systems, which were structured according to national requirements. The student exchange system was one of the first steppes of this harmonization process, when in 1981 Erasmus Programme, which was taking its name from the European renaissance humanist and travelling scholar Desiderius Erasmus of Rotterdam (Rotterdam 1466, 1536 Basel), but was also an abbreviation for “European Region Action Scheme for the Mobility of University Students”, was launched with pilot students. It took a formal shape in 1987 with 3,244 students from 11 countries (Belgium, Denmark, Germany, Greece, France, Ireland, Italy, Netherlands, Portugal, Spain and United Kingdom) (Erasmus+, 2017).

However, the harmonization of education provoked reaction from EU members, and it cannot be added to the agenda of the Union until the Maastricht Treaty (1992), which was formally the foundation stone of the EU (De Wit 2015: 8). The higher education systems in Europe were organized according to different viewpoints on “state regulation, the university governance, competition and funding base”, and they were classified in four groups as Anglo-Saxon (UK), Western (or Continental) European (France, Spain, Germany), Nordic (Scandinavian) and Central and Eastern European model. Western model is further divided to Humboldtian model of Germany and Napoleonic model of France and Spain. (Koivula et al. 2009: 184).

German Humboldtian model is based on *Bildung*, which emphasizes the holistic development of human beings, as Alexander von Humboldt has proposed in 1851: “The real aim of human beings is not what the changing tendency but what the eternally unchanging him prescribes – is the highest and most proportional formation [Bildung] of its forces into a whole” (Humboldt 1851: 9; Koivula et al. 2009: 185). The Humboldtian model aims to create enlightened humanitarians educated in all aspects of knowledge, and the universities were founded as research centres, where students were trained through independent and objective research processes.

The French Napoleonic model of higher education, on the other hand, was based upon state-controlled, centralized universities, where the main aim was educating the specialists demanded by the state, which was transforming universities into institutions of professional and specialized education (Doh et al. 2017: 2, 6).

The Anglo-Saxon model is a liberal model, which is "a large-scale market-driven, diversified, and hierarchical system where competition between institutions is general." This was originally a feature of US universities, which was adapted by the UK after 1980s. Universities in UK are different from Continental universities as they are legally and financially independent from the state. Here, "higher education institutions sell their services to the State and consumers", and "a regular research assessment system has strong consequences for the university funding." (Koivula et al. 2009: 185).

To the contrary of the Anglo-Saxon model, the Nordic proposes that "equal opportunities increase well-being", and instead of a diversified, competitive, liberal education market, Nordic model maintains homogenous and equal higher education institutions. They are controlled and funded by the state, which makes education free of charge (Koivula et al. 2009: 185).

The Central and Eastern European model was based on training "highly qualified work force". The system was quite elitist labour market-led polytechnic system." (Koivula et al. 2009: 185). This was shared with the education system of the Turkic republics in the USSR until 1991. In 1990s, they – together with other post-Soviet republics - transformed their education system by adjusting to the market economy. Consequently, they encouraged opening private schools and universities as part of privatization policy. Accordingly, foreign education institutions were also permitted to operate for the integration to the global system. However the states were slow to describe a new higher education system accommodating changes, and these profit-oriented but uncontrolled and unqualified higher education institutions of Eastern Europe without accreditation and academic recognition were the main reason behind the establishment of the Bologna Process (YÖK 2007: 21), and the emphasis on accountability and quality standards are directly related with these unsophisticated institutions.

Based on those different traditions in Europe, there was strong opposition on the national level against harmonization of education, especially in countries with deeply rooted educational systems, such as France, Germany, Italy and the UK. The crucial step towards change was achieved by a declaration signed by ministers of education of those countries in Paris, in 1998. The reason behind the common step of these four forerunners of the European Community (EC) was not a reflection of their corresponding governments, citizens or even the EC but rather they "acted deliberately as representatives of their national governments, outside the context of the European Commission" (De Wit 2015: 8-9). It was actually an act to bypass their national bureaucratic and political process and clearly a play of fait accompli to avoid public protest.

> [T]he United Kingdom needed France, Italy, and Germany to convince the British public of the advantages of a joint initiative to harmonize European higher education with the British system. The Germans, for their part, needed the support of the other countries to sell a plan at home to introduce the bachelor's and master's degree structure. And the French and Italians needed the others to convince their publics of the need for reform of their higher education systems, something that had previously always been blocked by massive protests (De Wit 2015: 8-9).

Ministers of education acted together to avoid opposition on the national and supranational level. For legitimizing their attempt they declared that the EU should be more than just a unity of "the Euro, of the banks and economy" but that "it must be a Europe of knowledge as well", and they called to "strengthen and build upon the intellectual, cultural, social and technical dimensions of our continent" and "to consolidate Europe's standing in the world through continuously improved and updated education for its citizens" (Sorbonne Joint Declaration, 1998).

The declaration found positive response; expect the term "harmonization", which had to be replaced by "actions which may foster the desired convergence and transparency in qualification structures in Europe". Consequently, the next meeting in Bologna became a cornerstone in the transformation of European higher education system, known as the Bologna Process (De Wit 2015: 9).

3. Turkic Council and Establishment of the Turkic Universities Union

The process leading to the foundation of the Turkic Council (Cooperation Council of the Turkic Speaking States) has been initiated by Azerbaijan, Kazakhstan, Kyrgyzstan, Turkey, Turkmenistan at the "First Summit of the Heads of Turkic Speaking States" in Ankara in 1992 (Turkic Council, 2014: 1). The organization accepted to function "as an umbrella organization for the cooperation mechanisms among the Turkic Speaking States", and "TURKSOY" (International Organization of Turkic Culture, 1993), "TURKPA" (Parliamentary Assembly of Turkic Speaking Countries, 2008), "Turkic Academy" (2010), "Turkic Business Council" (2011), "Turkic Culture and Heritage Foundation" (2012) were founded as affiliated, joint organizations to accomplish cooperation (Turkic Council 2014: 3-4).

A significant cornerstone in the process was the establishment of the Turkic Council through the Nakhchivan Agreement at the Summit in Nakhchivan in 2009. The founding and current members of the Council are Azerbaijan, Kazakhstan, Kyrgyzstan and Turkey; and the main aim was declared as promoting "comprehensive cooperation among Turkic states" (Turkic Council, 2014: 1). The ninth point of the Nakhchivan Agreement is about "expanding interaction in the fields of science, technology, education and culture", which led to the establishment of the Turkic Universities Union (Turkic Council 2014: 3).

On October 21, 2011, in Almaty "The Declaration of the First Summit of the Cooperation Council of Turkic Speaking States" acknowledged that the Summit "[w]elcomed the initiative to establish Turkic Interuniversity Union [Turkic Universities Union], noting that such projects will contribute to the further development of relations between scientific institutions, educational institutions and scientists, as well as providing enriching experiences for university students" (Turkic Council 2011: 5). On August 22-23, 2012, it was added to "The Declaration of the Second Summit of the Cooperation Council of Turkic Speaking States", in Bishkek (Turkic Council 2012: 3).

The first meeting of rectors and/or vice-rectors of 15 universities from 4 member states for the establishment of the Turkic Universities Union was held in Istanbul on March 28-29, 2013, when the Istanbul Declaration was prepared. The founding members of the Union were: Baku State University, Azerbaijan Medical University, Azerbaijan University of Architecture from Azerbaijan; Al-Farabi Kazakh National University L.N. Gumilov Eurasian National University, Akhmet Yassawi University, Nazarbayev University from Kazakhstan; Kyrgyz National University, Bishkek Humanities University, International University of Kyrgyzstan, Kyrgyz-Turkish Manas University from Kyrgyzstan; Istanbul University, Ege University, Atatürk University, Eskişehir Osmangazi University from Turkey (Mert 2015: 282).

On the second meeting in Bishkek in May 2013 "The Directive for the Establishment of the Turkic University Union and its Higher Education Area" was adopted (http://www.turkkon.org/en-US/turkic-council-turkic-university-union-1st-general-assembly-will-be-hosted-by-the-ataturk-university-in-erzurum/301/1130/1130/708 [Last retrieved on 27.07.2017]). On August 16, 2013, "The Declaration of the Third Summit of the Cooperation Council of Turkic Speaking States", in Gabbala, "welcomed the founding meetings of the Turkic Inter-University Union held in Istanbul and Bishkek, and instructed the relevant Ministries and state institutions to implement measures for realization of the goals of the Union" (Turkic Council 2013: 2).

During these meetings the aim of enhancing cooperation in higher education among the member states was underlined, and projects including student and academic staff exchange programmes, namely "Orhun Process", were decided to be initiated. Additionally, the establishment of the "Student Council of the University Union" and "Quality Assurance Council" were among the first decisions of the Union. The objectives of the Turkic Universities Union were defined as follows:

- "Training of common identity conscious to the next generation by practicing appropriate education system in the sphere of modern scientific level, taking into account common history, culture and language to provide cooperation agreements between.

- Implementation of common credit transfer system,
- Encourage teaching-staff training programmes,
- The implementation of students and teaching-staff exchange programmes,
- The creation of appropriate conditions for recognizing the equivalence of diplomas between member universities,
- Benefiting from the outstanding superiority in certain areas of universities,
- Joint training for implementation and execution of the research programmes and projects,
- Arranging competitions in science and sport; organize symposiums, academic activities, cultural activities among Member Universities,
- Providing special scholarships for students who conduct studies on the Turkic world,
- Giving courses on common history, culture and literature to universities of all member states." (http://turkunib.org/en/#about [Last retrieved on 05.09.2018])

It was not an easy task to establish a union of Turkic countries. Similar to the example of the EU mentioned above, there are also differences in education systems of Turkic countries. Azerbaijan, Kazakhstan and Kyrgyzstan share common characteristics with the Central and Eastern European model, which was defined above by Koivula and Rinne as focusing "most of all [on] the training of highly qualified work force. The system was quite elitist labour market-led polytechnic system. HEIs [Higher Education Institutions] were strongly controlled by the state and the system was centralized and ideological" (Koivula et al. 2009: 185).

After the breakdown of the USSR, Azerbaijan, Kazakhstan and Kyrgyzstan had to transform their higher education in order to adapt to the market economy. The demand of the market and the labour force had changed with the closure of collective farms and transformation of factories and bureaucratic state apparatus, which were the main branches of employment. The universities had to transform themselves to meet the demands of a flexible market, which was replacing the planned economy.

They had to educate more graduates for the service sector, and there was a special need for entrepreneurs and a new generation, which had to be flexible in adapting to the dynamism brought by globalization. While a planned economy required relatively a stable and hierarchical work place, market economy demanded more dynamic and flexible work force. In this period of transition many makeshift higher education institutions were opened in Central Asia. Similar to the experience of the EU, also these unqualified higher education institutions without academic recognition require international accreditation through organizations, such as the Turkic Universities Union.

Turkish higher education system, on the other hand, was formed according to Continental European model –more exactly German Humboldtian model - after 1933, but it was modified to the Anglo-Saxon model with the establishment of the Council of Higher Education in 1981, and recently Turkey adjusted to Bologna Process and also joined European Higher Education Area (EHEA) qualifying in its requirements.

3.1. The Orhun Exchange Programme

On 16-17 October 2014, the First General Assembly of the Union was organized at the Chairing University, Atatürk University, in Erzurum, Turkey, where the urgency of the implementation of the Orhun Exchange Programme was underlined as the main subject (Mert 2015: 285). Additionally, the establishment of the Turkic Universities Union Student Council and its Directive was accepted by member universities, which was ratified by the Ministers of Education of the Turkic Council, on November 27-28 2014 (Mert 2015: 285). The goal of the Student Council, which was first chaired by the Atatürk University, was declared as "providing and developing cooperation among students of Member Universities on the fields of education, sports and culture" (http://turkunib.org/en/#about [Last retrieved on 05.09.2018]).

During the First General Assembly, the need for a quality assurance system, cooperation with the Turkic Academy, announcements of international congresses by member universities were also discussed. Furthermore, Osman Mert from the Atatürk University offered a project for common citizenship education in Turkic countries. Finally, Secretary General of the Turkic Council Ramil Hasanov reminded that during the Bodrum Summit it was decided to organize "Universiad" (Sports Games) between member university students, in 2015 (Mert 2015: 286-289).

After the Assembly country reports were demanded by the Turkic Council from member countries about the implementation of the Orhun Exchange Programme. The Orhun process has been studied in detail on the subjects of common language, curriculum, credit transfer, evaluation system and financial problems, which were essential for internationalization of higher education, before the implementation of the pilot programme in a competitive, global arena. Consequently, reports from three member states – except Turkey, where universities are already credited within the Bologna Process - were finalized and sent to the Turkic Council.

Kazakhstan and Kyrgyzstan declared that they have already sent and accepted students to partner universities in the framework of Mevlana and Erasmus+ programmes, and their universities provide dormitories to exchange students and academics.

Kazakhstan is a partner country of the Bologna Process since 2011, and they reminded that all of its member universities have already implemented European Credit Transfer System (ECTS).

All three universities of Kyrgyzstan affirmed that they recognize credits and course grades received by exchange students at partner universities.

Azerbaijan and Kyrgyzstan emphasized that a standard chart for grade conversion has to be developed.

All member universities of three countries evaluated the launch of Orhun Exchange Programme as appropriate, and they were willing to join the pilot programme, but they also expressed that it is obligatory to provide financial support by member states for a successful operation of the programme. Kazakhstan also announced that a student necessitates $ 350 per month to live in Kazakhstan.

The universities have generally emphasized the need to exchange information about education processes, training plans and programmes within the Union. Regarding the Orhun process, it is seen that all members are in fact interested with the implementation of the Orhun Exchange Programme, but they have stated that problems of finance, common curriculum, credit, evaluation system and language should be solved.

During the initiation of the Bologna process similar problems, such as language, financial problems and process of recognition of qualifications were also mentioned, but they were solved in time within a longer process after the launch of the programme (Kajberg 2004; West et al., 2001). Thus, internationalization of higher education can be considered as a process of continuous improvement and self-renewal.

The Second General Assembly was also held at the Atatürk University, on April 12, 2016. During the Assembly, the Rector of Kyrgyz-Turkish Manas University (KTMU), Prof.Dr. Sebahattin Balcı, was elected to replace the Rector of Atatürk University, Prof.Dr Hikmet Koçak, as the Chairman of the Union. Bitlis Eren University from Turkey is accepted as the 16th member of the Turkic Universities Union. The decisions about the Orhun Exchange Programme and Student Council were ratified as well.

The First Meeting of the Student Council was held with student representatives of member universities in Bishkek on 24-27 November 2016. After energetic discussions of young representatives, 19 decisions concerning future joint activities, projects, events between member universities were taken. The foundation of the Student Council was a significant step in the internationalization of education through association and friendship of young generations to build a common future.

On April 6-7, 2017, at the meeting organized by the Kyrgyz-Turkish Manas University [KTMU] in Bishkek "The Regulation of the Orhun Exchange Pilot Programme" was confirmed. The pilot programme was introduced for academics and undergraduate students from departments of International Relations and Politics, starting from the academic year 2017-18.

In the first year of the exchange programme 43 students and 2 academic staff from 6 universities applied to the programme; 11 of them voluntarily waived, 10 students and 1 teaching staff were not accepted for not complying with programme requirements. Thus, during this academic year, 22 students and 1 academic staff had participated in the Orhun Exchange Programme.

On April 19, 2018, Third General Assembly was held at the KTMU. In its presentation KTMU declared that in the past two years of its term they gave precedence to form an institutional identity for the Turkic Universities Union, and the logo and web-site (www.turkunib.org [Last retrieved on 05.09.2018]) of the Union were prepared. To increase the activities of the Union and develop friendly relations between students "The First Turkic Universities Sports Games" were organized with more than 300 participants from 5 universities, including 221 athletes, 40 coaches and 11 caretakers, at KTMU, on May 15-19, 2017. It was decided that "The Second Turkic Universities Sports Games" will be held at the Akhmet Yassawi University in Türkistan, in 2019.

KTMU has presented three publications as results of conducted projects: "Turkic World Tourism Guide", "Common Relations and Cooperation in the Countries of the Turkic Council after 25 Years of Experience" (Gürbüz, 2018), "Common Citizenship Education in the Turkic World" (Dündar et al. 2018). These projects were presented to the Turkic Council as works of the Turkic Universities Union to build a common future.

During the Third General Assembly, "Turkic Council Turkic University Union Award Directive" prepared by the KTMU was accepted "regarding the awards to be given by the Turkic Council to scientists, academicians, artists and experts who have conducted original scientific researches on the common history, languages and literature of the Turkic peoples". A draft of Turkic Index prepared by KTMU was also presented and accepted to be elaborated under the next Chairing University.

The Union Chairmanship was transferred to the Akhmet Yassawi University in accordance with the resolution of the Second General Assembly.

As a result of the first year's success of the Orhun Exchange Programme, it was extended by adding Turkology to recognized departments along with International Relations and Politics. Also the number of member universities increased from 16 to 19 with the acceptation of Azerbaijan University of Languages, Atyrau State University from Kazakhstan and Osh State University from Kyrgyzstan. The Directive of the Union was revised with amendments for the application of further member universities.

4. Conclusions and Recommendations

In an age, when knowledge has become the main prerequisite of development, universities enhanced their role in the advancement of countries. Additionally, globalization increased mobility of academics enabling the exchange of knowledge, which is fundamental for the revival of the Turkic civilization.

The shift of economic and scientific centres of gravity of the world from Western Europe to East Asia brings members of the Turkic Universities Union to the focal point. They are also at the focal point of growing economies on all four directions from Russia to India, from East Asia to the Atlantic coast and have the potential of benefitting economically and scientifically by interconnecting them. Not only the geographical location and physical proximity create a potential for Turkic Universities Union as a whole but also their cultural links have something in common with all corners of Eurasia, which is a unique asset to be appraised.

These global developments prepare a fertile ground for developing scientific research among Turkic republics, but it cannot be achieved without a well-planned common agenda. Turkic countries should help each other in their fields of superiority for a joint development. This, however, is not unchallenged, as the recent scientific level of Turkic countries is far beyond the top ten countries in scientific excellence. Moreover, it is not an easy task to adapt national education to international systems, but it is also true that regional collaboration will help to the escalation of the region as a whole, and this can also help to reverse brain drain.

The Orhun Exchange Programme is at the heart of adjusting to the requirements of internationalization of education, shift of global economic and scientific centres, growing importance of knowledge and formulation a response to global brain drain. This process with its prospect to form a qualified education in Turkic countries can become a model for the wider Turkic world and can help with persistent and well-studied policies to found the Turkic Higher Education Area for the further development of Turkic countries. Thus it can be appropriated as one of the vital vehicles for the renaissance of the Turkic world.

For the further development of the Orhun Exchange Programme the following points are worth to be emphasized:

- The initial steps and necessary precautions of the pilot programme should be analysed carefully.
- It is necessary to plan joint programmes, interaction and harmony in terms of academic language

and the programmes.

- The results of publications and researches on exchange programs should be analysed permanently, and the results should be immediately admitted to the implementation of the programme, as it is the case in the implementation of the Bologna Process.
- The Orhun Credit Transfer System which includes the credit transfer of the students participating in the Orhun Exchange Programme should be compatible with the Bologna Process and ECTS in the global competitive environment.
- The academic calendars, course contents and departmental processes should be unified among the member universities and later within the Turkic Higher Education Area.
- The equivalence of the courses and departments should be considered and studied in the pilot implementation process. The quotas related to students and faculty members within the scope of mobility, financial problems accommodation and social processes should be planned in the light of experiences gained from exchange programmes, such as Erasmus, Farabi, Mevlana.

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Investigation of the Level of Secondary School Students' Emotional Intelligence in Terms of Different Variables

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ABSTRACT

According to the existing research, emotional intelligence includes skills that can be developed. In many studies conducted in the literature, it is emphasized that emotional intelligence skills are not stable rather continuously change and develop. In the current study, it is aimed to investigate the level of secondary school students' emotional intelligence (11-14 years old) in terms of different variables (gender, grade level, parents' education level, the extent to which their parents care about their feelings, the frequency of reading book, the length of time spent on the phone or computer, person(s) or the environment playing the most important role in the growth of the individual, experiencing difficulty or not in making friends). The current study is designed in the descriptive survey model. The study group is comprised of a total of 920 students (483 females, 437 males) attending different state schools in the city of Denizli in the spring term of the 2018-2019 school year. As the data collection tools, "The BarOn Emotional Intelligence Scale (Child and Adolescent Form) and a "Personal Information Form" were used in the current study. The collected data were analyzed in SPSS 22.0 program package. The data were analyzed by using Multivariate Analysis of Variance (MANOVA). As a result of the research, it was found that secondary school students' emotional intelligence levels significantly vary depending on the variables such as grade level, the extent to which their parents care about their feelings, the frequency of reading book, the length of time spent on the phone or computer, person(s) or environment playing the most important role in their growth, father's education level and experiencing difficulty or not in making friends. However, no significant difference was found in the students' levels of emotional intelligence based on gender and mother's education level.

Keywords:
Emotional intelligence, BarOn emotional intelligence scale, secondary school students.

1. Introduction

In recent years, it has been understood that academic success is not a major factor in one's being successful in life. Kaya (2004) stated that an individual may have a very good profession because of his/her academic success, but whether he/she can be a good spouse, a good father or mother or a good manager is largely determined by his/her emotional intelligence. Pişkin (2007) noted that from time to time people who are successful in their education life cannot be so successful in their business life while people who are poor performers in their school life can be highly successful in their business life. He emphasized that this is because of the fact that the competencies required to be successful in school and the competencies required to be successful in business life are different and that while Intelligence Quotient (IQ) is more important for success in education life, Emotional Quotient (EQ) is more important for success in life and business. The fact that most of the academically successful people were not successful in life, that they were not satisfied with their

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lives and that they could not establish good social relations caused the concept of emotional intelligence to gain greater importance.

The concept of emotional intelligence, which became popular with Daniel Goleman's (1995) book “Emotional Intelligence: Why It Can Matter More Than IQ”, began to come to the fore in the 1990s. The concept was first used academically by Payne (1985). Then it was scientifically addressed by Salovey and Mayer (1990). Emotional intelligence has been defined in different ways by many scientists. According to Mayer and Salovey (1993), emotional intelligence is the ability to be aware of the emotions of one's self and those around him/her, to distinguish different emotions and to reflect this awareness in his/her behaviours. Emotional intelligence requires reasoning and problem-solving skills (Mayer and Salovey, 1997; Mayer, Salovey and Caruso, 2004; Salovey and Mayer, 1990). According to BarOn (1997), emotional intelligence is the individual, emotional and social skills and competences that enable one to cope with the pressures and expectations coming from the environment. According to Cooper and Sawaf (2010), emotional intelligence is the driving force that brings out one's own potential and leads him/her to the goal. Goleman (2016) argues that emotional intelligence is the ability to recognize emotions, to internalize relationships related to emotions, to acquire and manage emotion information. According to Reiff et al. (2001, p.70), emotional intelligence is defined as the type of intelligence that is responsible for an individual's ability to manage his or her relationships with others. It is all behaviours, competencies, beliefs and values that enable a person to accomplish his vision and mission successfully. In this context, emotional intelligence is a whole consisting of self-awareness, continuity, self-motivation, empathy and social relationship establishing skills.

The existing research stresses that emotional intelligence includes skills that can be developed. In many studies conducted in the literature, it is emphasized that emotional intelligence skills are not stable rather continuously change and develop (Goleman, 2016; Mayer and Salovey, 1995, 1997; Mayer, Salovey, Caruso and Sitarenios, 2001; Özdemir, 2003; Somuncuoğlu-Özerbaş, 2004; Salovey and Mayer, 1990; Shapiro 2017; Weisinger, 1998; Yılmaz, 2002). It has been shown that the mental distress and negative feelings of people with high emotional intelligence are low yet their positive feelings are high (Kong, Zhao and You, 2012). BarOn (2006) contends that psychological well-being and emotional intelligence are directly associated with each other. Moreover, there is a significant correlation between emotional intelligence and happiness (Furnham and Petrides, 2003). Adolescents with higher intelligence have been found to be happier than others (Shapiro, 2017). Emotional intelligence is closely related to the concepts of empathy, self-regulation and social skills (Çıplak and Atıcı, 2016). EQ competencies used to measure emotional intelligence are not opposites of IQ competences. In real life, these two concepts are in an interaction and foster each other. Reuven BarOn describes the true intelligent person as the one not only having cognitive intelligence but also emotional intelligence (Acar, 2002: 55). Scientists say that emotional intelligence is not fate like IQ, it can be developed at any age. This increases the importance of emotional intelligence more (Baltaş, 2006: 7).

To date, many studies have been conducted on emotional intelligence and the concept of emotional intelligence has been handled in many different ways. The concept of emotional intelligence has been examined in the literature with mixed and talent models. Goleman’s, Bar-On’s and Cooper and Sawaf’s models are mixed models while the model of intelligence proposed by Mayer and Salovey is a talent model. Mixed models examined emotional intelligence within the context of the individual’s emotions, personality characteristics and social skills (Çakar and Arbak, 2004). Mixed models state that emotional intelligence is characterized by personality traits such as secure assertiveness, optimism, happiness, empathy and self-esteem, optimism and social competence, and is observed through consistent behaviours in different environments (Köksal, 2007). Furthermore, according to many researchers, emotional intelligence, which is a personality trait, has a weak relationship with classical intelligence (Newsome, Day and Catano, 2000; Derksen, Kramer and Katzko, 2002; Saklofske et al., 2003). Models that deal with emotional intelligence as talent say that it is connected with traditional intelligence and talk about abilities such as recognizing, expressing and labelling emotions (Çakar and Arbak, 2004; Köksal, 2007). According to many researchers, emotional intelligence as ability is associated with cognitive intelligence but not personality trait (Lopes, Salovey and Straus, 2003; MacCann, Matthews, Zeidner and Roberts, 2003; Mayer, Caruso et al., 1999; Roberts, Zeidner and Matthews, 2001).

Liau, Liau, Teoh and Liau (2003) investigated the relationship between the emotional intelligence of secondary school students and their behavioural problems. It was noted that as emotional intelligence level increased, behavioural problems including stress, depression, somatic complaints, aggression and committing crime decreased. Baroncelli and Ciucci (2014), again in their study with secondary school students, revealed that the emotional management and emotion use dimensions of emotional intelligence were negatively correlated with bullying and cyber bullying and that bullying and cyber bullying students' scores taken from the dimensions of recognizing their own feelings and understanding others’ feelings were low. Brockert and Braun (2000) stated that by strengthening individuals' emotional intelligence, their family relations can be improved and the quality of their social life can be increased. Mayer et al. (2001) stated that individuals with high levels of emotional intelligence are able to manage their emotions more successfully, are more successful in stress management and resolution of emotional problems, and in connection with this, show more positive and constructive responses in social and family relationships. On the other hand, individuals with low level of emotional intelligence develop negative relationships by showing more aggressive behaviours and fail more in social relationships. A person with a high level of emotional intelligence has a sophisticated emotion management, emotional awareness, can empathize, establish healthy relationships and use their emotions effectively (Coşkun, 2015).

In recent years, the number of studies on the development and importance of emotional intelligence has increased rapidly in our country. When the studies conducted with secondary school students are reviewed, it is seen that emotional intelligence has been researched in relation to childhood depression (Adıyaman, 2010), psychological robustness (Ak, 2016), academic achievement (Atalay, 2014), parental attitudes (Topuksal, 2011) and intelligence and academic achievement (Dağlı, 2006). When the literature was reviewed, it was found that emotional intelligence is of great importance for individuals; thus, in the current study it was attempted to determine which factors could affect secondary school students’ emotional intelligence.

Purpose of the Study:

In the current study, it is aimed to investigate the level of secondary school students’ emotional intelligence in terms of different variables (gender, grade level, parents’ education level, the extent to which their parents care about their feelings, the frequency of reading book, the length of time spent on the phone or computer, person(s) or the environment playing the most important role in the growth of the individual, experiencing difficulty or not in making friends). To this end, answers to the following questions were sought.

1.1. Sub-problems:

1- What is the level of secondary school students’ emotional intelligence?

2- Do the secondary school students’ emotional intelligence vary significantly depending on gender, grade level, the frequency of reading book, and the length of the time spent on the phone or computer?

3- Do the secondary school students’ emotional intelligence vary significantly depending on their parents’ education level, the extent to which their parents care about their feelings, person(s) or environment playing the most important role in their growth and experiencing difficulty or not in making friends?

2. Method

Here, information is presented about the research model, the study group, the data collection process and the statistical analysis of the collected data.

2.1. Research Model

In the current study, the general survey model was used to provide a general description of the case (Karasar, 2009, p.77). The survey model aims to describe the subject under investigation in its own conditions as it was or is in the past or at present. The general survey model refers to way of conducting research on the whole or a part of the universe to elicit data about the whole universe consisted of numerous elements (Karasar, 2009, 77).

2.2. Study Group

The study group of the current research is comprised of a total of 920 5th, 6th, 7th and 8th grade students (483 females, 437 males) attending state schools in a city located in the west of Turkey in the spring term of the 2018-2019 school year. All the secondary schools involved in the current study were selected on the basis of convenience to the researchers. The participating students’ ages ranged from 11 to 14. The students participated in the current study on a volunteer basis. A total of 1121 students were reached but the number of the forms returned by the students is 920.

2.3. Data Collection Tools

In order to collect the personal information of the participants, a "Personal Information Form" was used and "The BarOn Emotional Intelligence Scale Child and Adolescent Form" was used to measure the level of the participants' emotional intelligence".

2.3.1. *Personal Information Form*

In order to determine the personal characteristics of the participating students, a personal information form was used. In the form, questions were asked to elicit data about the students' gender, grade level, parents' education level, the extent to which their parents care about their feelings, the frequency of reading book, the length of time spent on the phone or computer, person(s) or the environment playing the most important role in the growth of the individual, experiencing difficulty or not in making friends.

2.3.2. *BarOn Emotional Intelligence Scale Child and Adolescent Form* (EQ-i: YV)

The BarOn Emotional Intelligence Scale Child and Adolescent Form (EQ-i:YV) was developed by BarOn and Parker (2000). The scale is administered to children and adolescents in the age group 7-18. The scale consisted of 60 items that are responded on a four-point Likert scale with the response options, (1) seldom true of me, (2) sometimes true of me, (3) often true of me and (4) very often true of me. There are some reverse scored items in the scale. The items 6, 15, 21, 26, 28, 35, 37, 46, 49, 53, 54 and 58 are reverse scored items. The scale has six sub-dimensions. These sub-dimensions are intrapersonal skills, interpersonal skills, adaptability, stress management, general mood and positive impression. While the scale yields a separate score for each sub-dimension, it also produces a total emotional intelligence score. A high total emotional intelligence score indicates high emotional intelligence. The scale was adapted to Turkish by Köksal (2007). The reliability and validity studies of the scale were performed on a total of 1039 elementary school students and its Cronbach Alpha reliability coefficient was calculated to be .91. For the sub-dimensions of the scale, the Cronbach Alpha reliability coefficients were found to be as follows: .80 for the interpersonal skills sub-scale, .62 for the intrapersonal skills sub-scale, .68 for the stress management sub-scale, .85 for the adaptability sub-scale, .85 for the general mood sub-scale and .63 for the positive impression sub-scale. For the content validity of "EQ-i:YV", the original items of the scale and their Turkish translations were subjected to review of 10 experts and necessary changes were made on the items on the basis of the feedbacks from the experts. As a result of the item total, residual item and test-retest analyses conducted on the basis of the correlation of each item with scale scores, each of the scale items was found to be reliable at least in one of the three analyses. The characteristics of the individuals taking high scores from the sub-dimensions and the whole EQ can be described as follows:

• Intrapersonal: These individuals can understand their own feelings, and also have the ability to express their own feelings and needs. • Interpersonal: These individuals are successful in maintaining interpersonal relationships. They are good listeners and good at understanding and appreciating others' emotions. • Adaptability: These individuals are flexible, realistic and good at dealing with changes. They are successful in positive ways of coping with the problems of the daily life. • Stress Management: These individuals are quiet in general and can perform better under stress. They are rarely impulsive. They do not respond with an emotional outburst to a stressful situation. • General Mood: These individuals are optimistic. They view the positive sides of events and they are happy to be with them. • Positive Impression: The individuals taking a high score from this sub-dimension want to give a positive impression more than required. • Total EQ: These individuals are generally good at dealing with daily needs and happy.

2.4. Statistical Analysis of the Data

In the analysis of the data collected in the current study, SPSS 22.0 program package was used. While analysing the data, the descriptive statistical methods (frequency, percentage, mean, standard deviation) were used and in addition, Kolmogorov-Smirnov test was used to check the normality of the distribution.

After the descriptive statistics related to the scores were obtained, Levene test was used to check the variance homogeneity of the groups to be compared and in addition to this, in order to check the assumption of the equality of covariance, Box's M statistics in MANOVA test was used. After it was decided that the variances and covariances of the groups are equal (homogenous), MANOVA was run to check whether the dependent variables of emotional intelligence and its sub-dimensions vary significantly depending on the independent variables of gender, grade level, parents' education level, the extent to which parents care about their feelings, the frequency of reading book, the length of time spent on the phone or computer, the person(s) or environment playing the most important role in their growth and experiencing difficulty or not in making friends. The results were evaluated in the 95% confidence interval and at 0.05% significance level.

3. Findings

In this section, findings obtained in the current study are presented. On the basis of these findings, some explanations and interpretations are made and findings are presented in order specified by the research questions.

3.1. Findings related to the Students' Level of Emotional Intelligence

In the current study, in light of the responses given by the students to the items of the Emotional Intelligence Scale, their levels of emotional intelligence for the whole scale and its individual sub-dimensions are elicited and presented in Table 1.

Table 1. Students' Level of Emotional Intelligence

	N	Minimum	Maximum	Mean	Standard Deviation
General Mood	920	1,07	4.07	3,12	,57
Stress management	920	1,75	4.75	3,38	,58
Intrapersonal	920	1,33	4,33	2,80	,69
Adaptability	920	1,00	4,00	2,79	,67
Interpersonal	920	1,08	4,83	3,14	,54
Positive impression	920	1,00	4,83	2,35	,55
Total EQ	920	1,58	3,57	2,62	,35

As can be seen in Table 1, while the maximum score taken from the scale by the secondary school students is 4.83, the minimum score is 1.00. The mean EQ score is 2.62. Moreover, the students got the highest mean score from the stress management sub-dimension while the lowest mean score from the positive impression sub-dimension.

3.2. Investigation of the Students' Level of Emotional Intelligence in relation to Different Variables

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on gender are given in Table 2.

Table 2. Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on Gender

Emotional Intelligence	Gender	N	M	SD	MS	df	SS	F	p
Positive Impression	Female	483	2,31	,53	,876	1	,876	2,903	,089
	Male	437	2,38	,56					
General Mood	Female	483	3,11	,59	,001	1	,001	,002	,963
	Male	437	3,12	,55					
Adaptability	Female	483	2,75	,68	1,362	1	1,362	3,021	,083

	Male	437	2,83	,65					
Stress Management	Female	483	3,37	,59	,036	1	,036	,105	,746
	Male	437	3,39	,57					
Intrapersonal	Female	483	2,78	,71	,166	1	,166	,344	,558
	Male	437	2,81	,67					
Interpersonal	Female	483	3,25	,51	14,314	1	14,314	49,902	,000
	Male	437	3,00	,55					
Total EQ	Female	483	2,63	,35	,121	1	,121	1,001	,317
	Male	437	2,60	,34					

Table 2, the students' emotional intelligence mean scores taken from the whole scale and its sub-dimensions except for the interpersonal sub-dimension do not vary significantly depending on gender (p>.05).

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on grade level are shown in Table 3.

Table 3. Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on Grade Level

Emotional Intelligence	Grade level	N	M	D	MS	f	SS	F	p	Difference
Positive Impression	5th grade	211	2,4052	55	2,35	3	7,07	7.97	,000	5th -8th
	6th grade	161	2,4534	51						6th -8th
	7th grade	297	2,3642	58						7th -8th
	8th grade	251	2,2138	49						
General Mood	5th grade	211	3,2383	59	2,95	3	8,86	9,15	,000	5th -8th
	6th grade	161	3,1965	53						6th -8th
	7th grade	297	3,1138	55						7th -8th
	8th grade	251	2,9795	57						
Adaptability	5th grade	211	2,9289	68	2,11	3	6,33	4,73	,003	5th -7th
	6th grade	161	2,8273	65						5th -8th
	7th grade	297	2,7391	66						
	8th grade	251	2,7187	66						
Stress Management	5th grade	211	3,5134	7	3,04	3	9,14	9,15	,000	5th-7th
	6th grade	161	3,4757	51						5th -8th
	7th grade	297	3,3476	60						6th -8th
	8th grade	251	3,2600	57						

Intrapersonal	5^{th} grade	211	2,8294	73	,55	3	1,66	1,14	,330	-
	6^{th} grade	161	2,8654	61						
	7^{th} grade	297	2,7486	71						
	8^{th} grade	251	2,7975	67						
Interpersonal	5^{th} grade	211	3,1509	59	,35	3	1,05	1,16	,323	-
	6^{th} grade	161	3,0875	55						
	7^{th} grade	297	3,1801	51						
	8^{th} grade	251	3,1195	54						
Total EQ	5^{th} grade	211	2,6957	36	,99	3	2,98	8,45	,000	5^{th}-7^{th}
	6^{th} grade	161	2,6623	33						5^{th} -8^{th}
	7^{th} grade	297	2,6101	34						6^{th} -8^{th}
	8^{th} grade	251	2,5438	32						

As can be seen in Table 3, the students' emotional intelligence mean scores taken from the whole scale and its sub-dimensions except for the intrapersonal and interpersonal sub-dimensions vary significantly depending on grade level ($p<.05$). The total emotional intelligence mean scores seem to be decreasing from the 5^{th} grade towards the 8^{th} grade. That is, while the students' emotional intelligence is higher when they start the secondary school, it decreases towards the end of it.

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on the frequency of reading book are shown in Table 4.

Table 4. Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on the Frequency of Reading Book

Emotional Intelligence	Frequency of reading book	N	M	D	MS	f	SS	F	P	Difference
Positive Impression	Never (1)	44	2,3258	66	,081	2	,162	,268	,765	-
	Sometime (2)	561	2,3399	53						
	Always (3)	315	2,3661	56						
General Mood	Never (1)	44	2,9221	54	1,12	2	2,24	3,398	,034	1-3
	Sometime (2)	561	3,1137	56						
	Always (3)	315	3,1594	59						
Adaptability	Never (1)	44	2,7223	72	4,21	2	8,42	9,487	,000	2-3
	Sometime (2)	561	2,7214	66						
	Always (3)	315	2,9248	66						
	Never (1)	44	3,1250	58	2,59	2	5,19	7,710	,000	1-2
	Sometime (2)	561	3,3605	56						1-3

Stress Management	Always (3)	315	3,4624	60						
	Never (1)	44	2,6439	70	,576	2	1,51	1,194	,304	-
Intrapersonal	Sometime (2)	561	2,8116	66						
	Always (3)	315	2,8009	73						
	Never (1)	44	3,0322	60	4,33	2	8,66	14,768	,000	1-3
Interpersonal	Sometime (2)	561	3,0740	55						2-3
	Always (3)	315	3,2746	51						
	Never (1)	44	2,4947	30	1,26	2	2,53	10,721	,000	1-3
Total EQ	Sometimes (2)	561	2,5932	34						2-3
	Always (3)	315	2,6808	35						

As can be seen in Table 4, the students' emotional intelligence mean scores taken from the whole scale and its sub-dimensions except for the interpersonal and positive impression sub-dimensions vary significantly depending on the frequency of reading book ($p<.05$). The total emotional intelligence score of the students always reading book is higher than those of the students never or sometimes reading book.

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on the length of time spent on the phone or computer are presented in Table 5.

Table 5. Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on the Length of Time Spent on the Phone or Computer

Emotional Intelligence	Time Spent on the Phone or Computer	N	M	D	MS	f	SS	F	p	Difference
Positive Impression	Never (1)	67	2,41	57	,567	6	3,40	1,88	,080	-
	0-half (2)	177	2,42	49						
	Half-one (3)	209	2,37	53						
	One-one and half (4)	200	2,32	56						
	One and half-two (5)	76	2,32	53						
	Two–two and half (6)	64	2,19	54						
	Two and half and more (7)	127	2,29	60						
General Mood	Never (1)	67	3,12	60	1,271	6	7,62	3,91	,001	2-7
	0-half (2)	177	3,23	52						3-7

	Half-one (3)	209	3,16	56						
	One-one and half (4)	200	3,08	56						
	One and half-two 5)	76	3,14	,58						
	Two–two and half (6)	64	3,08	53						
	Two and half and more (7)	127	2,93	62						
Adaptability	Never (1)	67	2,91	64	1 ,841	6	1 1,04	4 ,15	, 000	2-4
	0-half (2)	177	2,94	64						2-7
	Half-one (3)	209	2,79	68						
	One-one and half (4)	200	2,69	65						
	One and half-two 5)	76	2,87	62						
	Two–two and half (6)	64	2,76	65						
	Two and half and more (7)	127	2,62	72						
Stress Management	Never (1)	67	3,43	60	1,522	6	9,13	4,55	,000	2-7
	0-half (2)	177	3,47	59						3-7
	Half-one (3)	209	3,47	54						
	One-one and half (4)	200	3,37	55						
	One and half-two 5)	76	3,25	63						
	Two–two and half (6)	64	3,29	60						
	Two and half and more (7)	127	3,21	8						
Intrapersonal	Never (1)	67	2,83	62	,927	6	5,56	1,93	,073	-
	0-half (2)	177	2,88	74						
	Half-one (3)	209	2,84	62						
	One-one and half (4)	200	2,77	70						

	One and half-two 5)	76	2,83	73						
	Two–two and half (6)	64	2,76	62						
	Two and half and more (7)	127	2,63	74						
Interpersonal	Never (1)	67	3,13	52	,571	6	3,42	1,90	,078	-
	0-half (2)	177	3,22	51						
	Half-one (3)	209	3,13	59						
	One-one and half (4)	200	3,10	55						
	One and half-two 5)	76	3,20	49						
	Two–two and half (6)	64	3,16	45						
	Two and half and more (7)	127	3,03	58						
Total EQ	Never (1)	67	2,65	34	,692	6	4,15	5,93	,000	1-7
	0-half (2)	177	2,71	32						2-4
	Half-one (3)	209	2,65	34						2-7
	One-one and half (4)	200	2,58	34						3-7
	One and half-two 5)	76	2,62	32						
	Two–two and half (6)	64	2,58	32						
	Two and half and more (7)	127	2,49	36						

As can be seen in Table 5, the students' emotional intelligence mean scores taken from the whole scale and its sub-dimensions except for the positive impression, interpersonal and intrapersonal sub-dimensions vary significantly depending on the length of time spent on the phone or computer (p<.05). When the total mean emotional intelligence score is examined, it is seen that the mean score of the students spending more than 1 hour on the phone or computer is lower than that of the students spending less than 1 hour on the phone or computer.

3.3. Investigation of the Students' Level of Emotional Intelligence in relation to Different Variables

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on mother's education level are given in Table 6.

Table 6. Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on Mother's Education Level

Emotional Intelligence	Mother's education level	N	M	SD	MS	df	SS	F	p	Difference
Positive Impression	Elementary (1)	95	2,34	,58	,415	3	1,37	1,04	,250	-
	Secondary (2)	30	2,37	,53						
	High school (3)	41	2,27	,55						
	University (4)	54	2,34	,49						
General Mood	Elementary (1)	95	3,10	,59	,493	3	1,49	1,23	,214	-
	Secondary (2)	30	3,12	,56						
	High school (3)	41	3,17	,55						
	University (4)	54	3,05	,57						
Adaptability	Elementary (1)	95	2,72	,66	3,03	3	6,83	5,16	,000	1-4 2-4 3-4
	Secondary (2)	30	2,72	,66						
	High school (3)	41	2,80	,70						
	University (4)	54	3,00	,61						
Stress Management	Elementary (1)	95	3,32	,58	,506	3	1,48	1,15	,218	-
	Secondary (2)	30	3,38	,58						
	High school (3)	41	3,41	,57						
	University (4)	54	3,43	,60						

Intrapersonal	Elementary (1)	95	2,77	,71	,863	3	1,79	1,45	,147	-
	Secondary (2)	30	2,82	,60						
	High school (3)	41	2,86	,69						
	University (4)	54	2,70	,77						
Interpersonal	Elementary (1)	95	3,13	,54	,121	3	,401	1,76	,753	-
	Secondary (2)	30	3,11	,61						
	High school (3)	41	3,15	,52						
	University (4)	54	3,17	,50						
Total EQ	Elementary (1)	95	2,59	,34	,138	3	1,14	1,10	,329	-
	Secondary (2)	30	2,61	,33						
	High school (3)	41	2,64	,35						
	University (4)	54	2,63	,35						

As can be seen in Table 6, the students' emotional intelligence mean scores taken from the whole scale and its sub-dimensions except for the adaptability sub-dimension do not vary significantly depending on mother's education level (p>.05). When the total mean emotional intelligence score is examined, it is seen that the students' emotional intelligence mean scores do not vary significantly depending on mother's education level.

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on father's education level are given in Table 7.

Table 7. Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on Father's Education Level

Emotional Intelligence	Father's Education Level	N	M	SD	MS	df	SS	F	p	Difference
Positive Impression	Elementary (1)	209	2,31	,56	,293	3	,880	,970	,406	-

	Secondary (2)	239	2,38	,55						
	High school (3)	268	2,37	,56						
	University (4)	204	2,31	,51						
General Mood	Elementary (1)	209	3,10	,55	,058	3	,175	,176	,913	-
	Secondary (2)	239	3,12	,58						
	High school (3)	268	3,11	,59						
	University (4)	204	3,14	,57						
Adaptability	Elementary (1)	209	2,61	,63	4,57	3	13,725	10,43	,000	1-3 1-4 2-4
	Secondary (2)	239	2,74	,67						
	High school (3)	268	2,85	,69						
	University (4)	204	2,94	,63						
Stress Management	Elementary (1)	209	3,35	,59	,546	3	1,639	1,600	,188	-
	Secondary (2)	239	3,34	,56						
	High school (3)	268	3,38	,60						
	University (4)	204	3,45	,57						
Intrapersonal	Elementary (1)	209	2,78	,67	,112	3	,336	,232	,874	-
	Secondary (2)	239	2,77	,67						
	High school (3)	268	2,82	,68						

	University (4)	204	2,81	,75						
Interpersonal	Elementary (1)	209	3,11	,57	,520	3	1,561	1,726	,160	-
	Secondary (2)	239	3,08	,57						
	High school (3)	268	3,18	,52						
	University (4)	204	3,17	,52						
Total EQ	Elementary (1)	209	2,58	,33	,323	3	,970	2,699	,045	1-4 2-4
	Secondary (2)	239	2,59	,33						
	High school (3)	268	2,64	,35						
	University (4)	204	2,66	,35						

As can be seen in Table 7, the secondary school students' emotional intelligence scores taken from the whole scale and the adaptability sub-dimension vary significantly depending on father's education level ($p<.05$). When the total mean emotional intelligence score is examined, it is seen that the mean emotional score of the students whose fathers are university graduates is higher than those of the students whose fathers are elementary, secondary and high school graduates.

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on the extent to which their mothers care about their feelings are given in Table 8.

Table 8. Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on the Extent to Which their Mothers Care about their Feelings

Emotional Intelligence	The extent to which mother cares about their feelings	N	M	D	MS	f	SS	F	p	Difference
Positive Impression	Doesn't care (1)	25	2,26	79	,867	2	1,73	2,88	,057	-
	Partially cares (2)	108	2,24	54						
	Cares (3)	787	2,36	53						
	Doesn't care (1)	25	2,68	58	8,29	2	16,59	26,48	,000	1-3

General Mood	Partially cares (2)	108	2,82	54						2-3
	Cares (3)	787	3,17	56						
Adaptability	Doesn't care (1)	25	2,64	77	3,16	2	6,33	7,10	,001	2-3
	Partially cares (2)	108	2,58	61						
	Cares (3)	787	2,82	67						
Stress Management	Doesn't care (1)	25	3,08	70	4,65	2	9,30	13,99	,000	1-3
	Partially cares (2)	108	3,15	51						2-3
	Cares (3)	787	3,42	58						
Intrapersonal	Doesn't care (1)	25	2,62	67	5,92	2	5,65	5,92	,003	2-3
	Partially care (2)	108	2,61	70						
	Care (3)	787	2,83	68						
Interpersonal	Doesn't care (1)	25	3,01	61	12,57	2	7,41	12,57	,000	2-3
	Partially cares (2)	108	2,91	53						
	Cares (3)	787	3,18	54						
Total EQ	Doesn't care (1)	25	2,43	32	26,46	2	6,04	26,46	,000	1-3
	Partially cares (2)	108	2,42	29						2-3
	Cares (3)	787	2,65	34						

As can be seen in Table 8, the students' emotional intelligence mean scores taken from the whole scale and its sub-dimensions except for the positive impression sub-dimension vary significantly depending on the extent to which their mothers care about their feelings ($p<.05$). When the total mean emotional intelligence score is examined, it is seen that the mean emotional intelligence score of the students whose feelings are cared about by their mothers is higher than those of the students whose feelings are partially cared or not cared about by their mothers.

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on the extent to which their fathers care about their feelings are given in Table 9.

Table 9. Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on the Extent to Which their Fathers Care about their Feelings

Emotional Intelligence	The extent to which father cares about their feelings	N	M	SD	MS	df	SS	F	p	Difference

Positive Impression	Doesn't care (1)	46	2,10	,50	3,09	2	6,19	10,45	,000	1-3
	Partially cares (2)	178	2,24	,52						2-3
	Cares (3)	696	2,39	,55						
General Mood	Doesn't care (1)	46	2,60	,62	12,7	2	25,43	41,89	,000	1-3
	Partially cares (2)	178	2,90	,54						2-3
	Cares (3)	696	3,20	,54						
Adaptability	Doesn't care (1)	46	2,49	,69	8,78	2	17,57	20,25	,000	1-3
	Partially cares (2)	178	2,56	,59						2-3
	Cares (3)	696	2,87	,67						
Stress Management	Doesn't care (1)	46	3,15	,59	4,80	2	9,60	14,54	,000	1-3
	Partially cares (2)	178	3,21	,53						2-3
	Cares (3)	696	3,44	,58						
Intrapersonal	Doesn't care (1)	46	2,54	,67	5,34	2	10,69	11,33	,000	1-3
	Partially cares (2)	178	2,63	,64						2-3
	Cares (3)	696	2,86	,69						
Interpersonal	Doesn't care (1)	46	2,92	,61	3,85	2	7,71	13,10	,000	1-3
	Partially cares (2)	178	2,99	,52						2-3
	Cares (3)	696	3,19	,54						
Total EQ	Doesn't care (1)	46	2,35	,29	4,83	2	9,67	43,92	,000	1-3
	Partially cares (2)	178	2,46	,29						2-3
	Cares (3)	696	2,67	,34						

As can be seen in Table 9, the students' emotional intelligence mean scores taken from the whole scale and its sub-dimensions vary significantly depending on the extent to which their fathers care about their feelings ($p<.05$). When the total mean emotional intelligence score is examined, it is seen that the mean emotional intelligence score of the students whose feelings are cared about by their fathers is higher than those of the students whose feelings are partially cared or not cared about by their mothers.

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on the person(s) and the environment playing the most important role in their growth are given in Table 10.

Table 10. Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on the Person(s) and the Environment Playing the Most Important Role in their Growth

Emotional Intelligence	Person(s)	N	M	SD	MS	df	SS	F	p	Difference
	Caretaker (1)	9	2,10	,47	,632	6	3,792	2,10	,050	-

Positive Impression	Grandfather-mother (2)	06	2,33	,56						
	Mother (3)	4	2,36	53						
	Father (4)	7	2,51	46						
	Sibling (5)	2	2,46	82						
	Relatives (6)	9	2,18	44						
	Crèche (7)	3	2,41	76						
General Mood	Caretaker (1)	9	2,81	65	1,414	6	8,485	4,37	,000	1-2
	Grandfather-mother (2)	6	3,13	56						1-3
	Mother (3)	4	3,15	56						2-6
	Father (4)	7	2,97	36						3-6
	Sibling (5)	2	2,97	62						
	Relatives (6)	9	2,68	54						
	Crèche (7)	3	3,10	58						
Adaptability	Caretaker (1)	9	2,88	72	,429	6	2,573	,949	,449	-
	Grandfather-mother (2)	6	2,78	67						
	Mother (3)	4	2,78	65						
	Father (4)	7	2,82	62						
	Sibling (5)	2	2,70	83						
	Relatives (6)	9	2,74	74						
	Crèche (7)	3	3,17	78						
Stress Management	Caretaker (1)	9	3,25	55	1,412	6	8,473	4,215	,000	2-6
	Grandfather-mother (2)	6	3,32	59						3-6
	Mother (3)	4	3,43	57						
	Father (4)	7	3,32	43						
	Sibling (5)	2	3,38	53						
	Relatives (6)	9	2,90	71						
	Crèche (7)	3	3,11	49						
Intrapersonal	Caretaker (1)	9	2,67	76	,742	6	4,452	1,543	,161	-
	Grandfather-mother (2)	6	2,72	68						
	Mother (3)	4	2,84	68						
	Father (4)	7	2,76	58						
	Sibling (5)	2	2,92	65						

	Relatives (6)	9	2,58	82						
	Crèche (7)	3	2,62	90						
Interpersonal	Caretaker (1)	9	2,99	62	,456	6	2,735	1,514	,170	-
	Grandfather-mother (2)	6	3,14	54						
	Mother (3)	4	3,15	53						
	Father (4)	7	3,03	54						
	Sibling (5)	2	2,93	59						
	Relatives (6)	9	3,05	54						
	Crèche (7)	3	3,32	64						
Total EQ	Caretaker (1)	9	2,49	37	,338	6	2,027	2,838	,010	2-6
	Grandfather-mother (2)	6	2,60	35						
	Mother (3)	4	2,64	33						
	Father (4)	7	2,57	21						
	Sibling (5)	2	2,57	43						
	Relatives (6)	9	2,39	32						
	Crèche (7)	3	2,64	41						

As can be seen in Table 10, the secondary school students' emotional intelligence scores taken from the whole scale and the general mood and stress management sub-dimensions vary significantly depending on the person(s) and the environment playing the most important role in their growth ($p<.05$). When the total mean emotional intelligence score is examined, it is seen that there is a significant difference between the mean emotional intelligence scores of the children spending the most time with their mothers and the children spending with their relatives. The emotional intelligence mean score of the children spending the most time with their mothers when they were younger is higher.

The results of the MANOVA analysis conducted to determine whether the students' scores taken from the Emotional Intelligence Scale vary significantly depending on experiencing difficulty or not in making friends are given in Table 11.

Table 11. Results of MANOVA Conducted to Determine Whether the Secondary School Students' Emotional Intelligence Scores Vary Significantly depending on Experiencing Difficulty or not in Making Friends

Emotional Intelligence	Experiencing difficulty in making friends	N	M	SD	MS	df	SS	F	p	Difference
Positive Impression	No (1)	649	2,43	53	7,56	2	15,12	26,38	,000	1-2
	Partially (2)	210	2,13	51						1-3
	Yes (3)	61	2,21	59						
	No (1)	649	3,23	52	15,20	2	30,44	51,05	,000	1-2

General Mood	Partially (2)	210	2,88	55						1-3
	Yes (3)	61	2,71	73						
Adaptability	No (1)	649	2,88	66	9,22	2	18,45	21,32	,000	1-2
	Partially (2)	210	2,56	63						1-3
	Yes (3)	61	2,59	71						
Stress Management	No (1)	649	3,44	58	4,11	2	8,22	12,31	,000	1-2
	Partially (2)	210	3,26	53						1-3
	Yes (3)	61	3,16	59						
Intrapersonal	No (1)	649	2,90	67	12,17	2	24,35	26,65	,000	1-2
	Partially (2)	210	2,56	64						1-3
	Yes (3)	61	2,50	79						
Interpersonal	No (1)	649	3,21	52	5,59	2	11,18	19,25	,000	1-2
	Partially (2)	210	2,99	53						1-3
	Yes (3)	61	2,90	68						
Total EQ	No (1)	649	2,69	33	6,37	2	12,750	59,68	,000	1-2
	Partially (2)	210	2,45	29						1-3
	Yes (3)	61	2,39	35						

As can be seen in Table 11, the secondary school students' emotional intelligence scores taken from the whole scale and its sub-dimensions vary significantly depending on experiencing difficulty or not in making friends ($p<.05$). When the total mean emotional intelligence score is examined, it is seen that the mean score of the students not experiencing difficulty in making friends is significantly higher than those of the students partially experiencing or experiencing difficulty in making friends.

4. Discussion-Results

Many studies conducted in recent years have shown that the definition of intelligence should be expanded and that besides IQ, which is considered to be the classically accepted intellectual intelligence, EQ should be included in this definition (Çakar & Arbak, 2004; Goleman, 1995). Emotional intelligence includes the competences of being aware of emotions, dealing with emotions, self-motivating, empathizing and managing relationships. Disruptions in the development of emotional intelligence play an important role in the emergence of both psychological problems and interpersonal relations (Tuğrul, 1999). In this connection, the current study aimed to investigate whether the secondary school students' level of emotional intelligence (11-14 years old) varies significantly depending on some variables (gender, grade level, parents' education level, the extent to which parents care about their feelings, the frequency of reading book, the length of time spent on the phone or computer, the person(s) and the environment playing the most important role in their growth).

According to the findings of the current study, the total mean score taken from the BarOn Emotional Intelligence Scale Children and Adolescents Form is 2.62. The students were found to have the highest mean score for the stress management sub-dimension, while they were found to have the lowest mean score for the positive impression sub-dimension. Individuals who are good at stress management are generally calm and can perform better under stress. They are rarely impulsive. They do not respond with an emotional outburst to a stressful situation. Individuals taking a low score from the positive impression sub-dimension do not want to leave a positive impression more than required. Individuals taking a high score from the EQ test are generally good at dealing with daily problems and happy (Naseem, 2018; Abdollahi et al., 2015; Mahasneh, 2013; Zacher et al., 2013).

The findings of the current study have revealed that the secondary school students' emotional intelligence scores taken from the whole scale and its sub-dimensions except for the interpersonal sub-dimension do not vary significantly depending on gender ($p>.05$). When the relevant literature is reviewed, it is seen that in many studies, a significant difference was found in the emotional intelligence scores in favour of female students (Ulutaş, 2005; Austin, Evans, Magnus, O'Hanlon, 2007; Bender, 2006; Tekin, 2014; Birks, McKendree, Watt, 2009; Akdeniz, 2014; Yurdakavuştu, 2012; Kızıl, 2012; Ümit, 2010; Köse, 2009; Somuncuğlu Özerbaş, 2004; Şen, 2017; İnci, 2014; Seyis, 2011). In the existing research, a significant correlation has been reported between intelligence and gender in general; however, in the current study no significant difference based on gender was found in the total mean emotional intelligence scores. In this regard, the current study does not seem to concur with the studies conducted by Aydın (2018) and İşeri (2016). The findings of the current study were obtained from secondary school students. However, this study should also be conducted on male and female students from different age groups. A better grasp of the relationship between emotional intelligence and gender can be achieved through further research to be conducted on the issue.

It was also found that the secondary school students' emotional intelligence scores taken from the whole scale and its sub-dimensions except for the intrapersonal and interpersonal sub-dimensions vary significantly depending on grade level. When the total mean emotional intelligence score was examined, the highest mean score was found for the 5th graders while it decreased with the increasing grade level. That is, while the students' emotional intelligence is high at the beginning of the secondary school, it decreases towards the end of the secondary school. In the study conducted by Aydın (2018), it was also found that the scores taken by the students from the emotional intelligence scale vary significantly by grade level. The emotional intelligence mean scores of the 5th and 6th grade students were found to be statistically higher than those of the 10th and 11th graders and that with increasing grade level, the emotional intelligence score dropped. On the other hand, Bender (2006) found that the students' emotional intelligence scores do not vary significantly depending on grade level. İşeri (2016) investigated the emotional intelligence levels of students from four different grades of high school and found that the students' level of emotional intelligence did not vary significantly by grade level. Köse (2009) reported that with increasing grade level, the emotional intelligence of students decreased. That is, a significant difference was found between lower grades and upper grades (2nd grade and 7th grade). Aydın (2018) and Köse (2009) also concluded that with increasing grade level, the students' emotional intelligence decreased, which supports the finding of the current study. However, Bender (2006) and İşeri (2016) found that there is no significant correlation between emotional intelligence and grade level. The grade levels involved in studies vary while in one study, secondary school and high school grades were studied together, in another study elementary and secondary school students were studied together. The differences seen in the findings of different studies may have resulted from the inclusion of different grade levels in different studies. The reason for the decrease in the emotional intelligence of the students in the study group with increasing grade level might be their transition to a different period as a result of their gradual progression from the childhood period to the adolescence period.

It was found that the secondary school students' emotional intelligence scores taken from the whole scale and its sub-dimensions except for the interpersonal and positive impression sub-dimensions vary significantly depending on the frequency of reading book ($p<.05$). When the total mean emotional intelligence score was examined, it was found that the mean score of the students always reading book is higher than those of the students never or sometimes reading book. The secondary school students' emotional intelligence scores taken from the whole scale and its sub-dimensions except for the positive impression, intrapersonal and interpersonal sub-dimensions were found to be varying significantly depending on the length of the time spent on the phone or computer ($p<.05$). When the total mean emotional intelligence score was examined, it was found that the mean score of the students spending more than 1 hour on the phone or computer is lower than that of the students spending less than 1 hour on the phone or computer. In his study conducted on the secondary school students, Topşar (2015) investigated whether there is a significant correlation between emotional intelligence and addiction to computer games and found a significant and positive correlation. Significant and positive correlations were found between the four sub-dimensions of emotional intelligence and four different sub-dimensions of addiction to computer games. Emotional intelligence was found to be not related to neutral or violent computer games but to the computer games with social content. Bushman (2015) stated that violent computer games lead to an increase in aggressive behaviours and a decrease in empathy and altruistic behaviours. On the other hand, computer games including socially beneficial behaviours have been reported to positively affect empathy; accordingly, emotional intelligence. Anderson and Bushman (2001) argue that computer games cause aggression in children and adolescents. In the formation of tendency towards aggression in children and adolescents, the type of the game played and the frequency and length of playing are influential. In a study, it was determined that the academic achievement and school performance of the university students using the internet for more than 11 hours and 18 minutes are lower than those of the students using the internet for 3 hours and 84 minutes and less. Holman et al. (2005) found that social development of the children frequently using the internet and spending a great amount of time on computer games is retarded to a large extent, their self-confidence lowers and their social anxiety levels and aggressive behaviours are high. According to Aksaçlıoğlu and Yılmaz (2007), in recent years, children's watching TV and using the computer negatively affects their reading habits. It is seen that with increasing amount of television watching and computer using, the habit of reading book deteriorates. The negative effect of technology on book reading has been reported. In a study conducted by Odabaş, Odabaş and Polat (2008) on university students, it was found that while nearly 51% of the students spend at least an hour listening to music, watching television and using computer every day, nearly 37% of them spend at most an hour reading book. Moreover, for the habit of reading to be deeply-rooted in later ages, children should be encouraged to start reading at early ages by their parents. The effect of family on the development of reading habit has been proved in many studies. However, when the literature is reviewed, it is seen that there is a limited amount of research focusing on the measurement of reading habit in children and the effect of the family's attitude towards reading on the development of this habit. One of the studies exploring this effect was conducted by Ünal, Topçuoğlu and Yiğit (2014); they investigated the effect of the family on the development of children's reading culture and found that as the family is a model to children and shapes their future, it has a significant effect on the development of reading habit in children. In a study conducted by Duran and Sezgin (2012) to determine the elementary school fourth and fifth graders' reading habits and interests, they concluded that if the family does not serve as a good model to the child, the development of his/her reading habit can be hindered.

In the current study, it was found that the secondary school students' emotional intelligence scores taken from the whole scale and its sub-dimensions except for the adaptability do not vary significantly depending on mother's education level (p.>05). On the other hand, their emotional intelligence scores taken from the whole scale and the adaptability sub-dimension were found to be varying significantly depending on father's education level (p<.05). When the total mean emotional intelligence was examined, it was seen that the mean score of the children whose fathers are university graduates is higher than those of the students whose fathers are elementary, secondary or high school graduates. While the secondary school students' emotional intelligence scores were found to be not varying significantly depending on mother's education level, they were found to be varying significantly depending on father's education level. When the relevant literature is reviewed, it is seen that Aydın (2018) reported that the scores taken from the emotional intelligence scale do not vary depending on mother and father's education level and that the mean scores of the children whose mothers and fathers hold a high school degree, bachelor's degree or graduate degree do not vary significantly. Bender (2006) also found that the scores taken from the emotional intelligence scale do not vary significantly depending on mother and father's education level. Göçet Tekin (2014) investigated the emotional intelligence scores of the university students in relation to their mothers and fathers' education level and found that the mean scores of the students whose parents are elementary school, secondary school, high school and university graduates do not vary significantly. Yurdakavuştu (2012) looked into the relationship between emotional intelligence and mother and father's education level and found that the mean emotional intelligence score of the students whose mothers and fathers are high school graduates is higher than those of the students whose mothers and fathers are illiterate, elementary, secondary school, university graduates or having a master's degree. Ümit (2010) carried out a study on adolescents and found that the scores taken from the emotional intelligence scale do not vary depending on mother and father's education level. Harrod and Scheer (2005, cited in Topuksal, 2011) conducted a study with the participation of adolescents to investigate the relationship between the level of emotional intelligence and demographic features. In the study, they used the BarOn Emotional Intelligence Children and Adolescents Form and found a significant correlation between emotional intelligence and the education level of the family.

In the current study, it was found that the secondary school students' emotional intelligence scores taken from the whole scale and its sub-dimensions except for the positive impression sub-dimension vary significantly depending on the extent to which their mothers care about their feelings ($p<.05$). When the total mean intelligence score was examined, it was found that the mean emotional intelligence score of the children whose mothers care about their feelings is higher than those of the students whose mothers partially care or do not care about their feelings. Moreover, the secondary school students' emotional intelligence scores taken from the whole scale and its sub-dimensions were found to be varying significantly depending on the extent to which their fathers care about their feelings ($p<.05$). When the total mean emotional intelligence score was examined, it was found that the mean emotional intelligence score of the children whose fathers care about their feelings is higher than those of the children whose fathers partially care or do not care about their feelings. Thus, it can be argued that the extent to which individuals' emotions are cared about by their parents affects their emotional intelligence. Emotional intelligence of the children who grew up in families where there were warm relationships based on love, trust and respect, and family members cared about each other's feelings was found to be higher (Uyar Kurt, 2016). Attention paid to their emotions can affect the development of children's emotional intelligence (Karayılmaz, 2008). Children with a high level of emotional intelligence can be more successful in their academic life and social relationships (Kuzucu, 2011; Ulutaş, 2005).

In the current study, it was found that the secondary school students' emotional intelligence scores taken from the whole scale and the general mood and stress management sub-dimensions vary significantly depending on the person(s) or the environment playing the most important role in their growth ($p<.05$). The mean score of the students who were brought up by their mothers was found to be higher than those of the children brought up by caretakers or relatives. Thus, it is seen that the development of the emotional intelligence of the children who are raised by their mothers is better than those of the children raised by caretakers or relatives. Emotional intelligence of the children who grew up in families where there were warm relationships based on love, trust and respect, and family members cared about each other's feelings was found to be higher (Uyar Kurt, 2016). When the relevant literature is reviewed, it is seen that there is no study focusing on the relationship between the development of emotional intelligence and the person(s) playing the most important role in the growth of the individual.

In the current study, it was found that the secondary school students' emotional intelligence scores taken from the whole scale and its sub-dimensions vary significantly depending on their experiencing difficulty or not in making fiends ($p<.05$). That is, the mean emotional intelligence score of the students not experiencing difficulty in making friends is higher than those of the students partially experiencing or experiencing difficulty in making friends. According to Coşkun (2015), the individual with a high level of emotional intelligence has an advanced management of emotions, emotional awareness, can empathize and establish healthy relationships and use his/her emotions effectively. The reason behind the higher mean emotional score of the students not having difficulty in making friends than those of the students having difficulty or partially having difficulty in making friends might be because they have emotional awareness and the ability of establishing empathy.

5. Suggestions

In the current study the secondary school students' level of emotional intelligence was examined in relation to different variables and the current study has some limitations. The study is limited to the 920 students attending three secondary schools in the city of Denizli and participating in the current study on a volunteer basis. Moreover, a quantitative method was followed to achieve the objectives of the study. The relationships tested in the current study can be investigated by other studies using different research methods to increase the reliability of the results. In the current study, variables investigated included gender, grade level, parents' education level, the extent to which parents care about their feelings, the frequency of reading book, the length of time spent on the phone or computer, the person(s) and the environment playing the most important role in their growth and experiencing or not difficulty in making friends. In future research, the effect of other variables such as the type of the book read by adolescents, the type of the games they play on the phone or computer, branches of sports and music they are engaged in and friendship relationships on emotional intelligence can be explored.

Given the positive effect of the frequency of reading book on emotional intelligence, it can be suggested that parents should be a role model to their children by themselves reading book at home and should encourage their children to read book. In addition, it was also found that the mean emotional intelligence score of the children playing games on the phone or computer more than one hour is lower than that of the children playing games on the phone or computer less than one hour; thus, parents should be more careful about how long their children play games on the phone or computer. In the current study, a significant correlation was found between the children's experiencing difficulty or not in making friends and their emotional intelligence. In light of this finding, it can be suggested that the students who experience difficulty in making friends should be determined and then by creating suitable environments for them to study and do homework with other students, they should be encouraged to make friends. In the current study, it was found that when children's feelings are cared about by their parents, their emotional intelligence is fostered; thus, activities can be organized for parents to raise their awareness of the importance of caring about their children's feelings. It was also found that the children raised by their mothers have a higher level of emotional intelligence; therefore, when possible, mothers themselves should raise their children.

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Effect of smartphone addiction on loneliness levels and academic achievement of z generation

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ABSTRACT

Smartphones provide users much more than a mobile phone. For this reason, smartphones have become very important in our lives. In this context, the aim of this study was to investigate the effect of smartphone addiction on loneliness levels and academic achievement of Z generation high school students. In 2018-2019 academic year' spring semester, 490 high school students voluntarily participated to this study. As well as demographic information, Smartphone Addiction Scale and UCLA Loneliness Scale were used. In the analyses of the obtained data, IBM SPSS Statistics 24 was used. The relationship between variables was analyzed using Pearson's Correlation analysis. To determine the effect of smartphone addiction on high school students' loneliness and academic achievements, linear regression analysis was used. A positive relationship between Z generation high school students' smartphone addiction and right of monthly GB usage for smartphone, daily internet usage duration, and loneliness levels was determined, whereas there was a negative correlation between their academic achievements. Moreover, it was found that smartphone addiction of Z generation high school students predicted their loneliness and academic achievement at the level of ~4% and ~1%, respectively. These results show that high school students should be saved from smartphone addiction. Thus, loneliness levels can be reduced and academic achievement can be increased.

Keywords:
Academic achievement; Loneliness; Smartphone addiction; Z generation

1. Introduction

Generally, living in the same period and/or individuals with similar characteristics can be defined as generations. In the 21st century generation classification is classified as Traditionalists (1925-1945), the Baby Boomer (1946-1964), Generation X (1965-1979), Generation Y (1980-1999), and Generation Z (2000-2020). Each generation has its own characteristics. Generally, Traditionalists can be seen in the tendency to be frugal and cautious or risk-averse and seeing conformity as a sure ticket to success. Generations born in the years immediately after World War II represent the generation of the Baby Boomers. Generation X is reconciled with technology and knowledge, entrepreneurial, goal-oriented, and independent. Generation Y is the first generation to grow with the appeal of digital media, and two-thirds of its members met computers before the age of five. Lastly, the Z generation is called the internet generation (Adıgüzel, Batur & Ekşili, 2014).

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Since the 1990s, the internet has played a distinctive role in the lives of Generation Z youth. Toronto (2009) have reported that the internet has become a defining characteristic of a global society. Previously, the addictive use of the internet has not been identified formally as a problematic behavior by sociologists, psychologists, or psychiatrists (Young, 1998). However nowadays, as addiction not only refers to a drug or substance abuse, but it also refers to gambling, internet, games, or even smartphones, this kind of addictions fall under the category of behavioral addiction (Kwon, 2013). Therefore, it can be said that some internet users were becoming addicted to the internet in the same way that others became addicted to drugs or alcohol which resulted in academic, social, and occupational impairment.

The rapidly developing technological instruments have changed our daily behaviors and habits on a wide range including communication and information (Şar, Ayas & Horzum, 2015). First of all, together with the technological developments televisions, computers, cell phones, internet and lastly smartphones have become very important in our lives (Soyer, Tolukan & Dugenci, 2019). Today smartphones provide users much more than a mobile phone. They offer camera, offline and online games, and thousands of applications available via the Internet (Enez Darcin et al., 2016). However, smartphones can be detrimental to the user's health if they are used in a problematic or addictive manner. Bianchi and Phillips (2005) have indicated that excessive use of mobile phone may cause health problems more (e.g. headaches, fatigue, impaired concentration, insomnia, and hearing problems). It was also reported that some dimensions of personality such as low self-esteem, extraversion, higher approval motivation, and higher self-monitoring were more frequently seen in people who suffer from mobile phone addiction. In addition to these problematic behaviors, smartphone addiction can affect individuals' loneliness and academic achievement.

Loneliness is a serious and major developmental problem of adolescence. Individuals seek various ways to cope with this problem. Problematic mobile phone use, even among family members, negatively affects face-to-face interpersonal contact resulting in anti-social feelings (Dayapoglu, Kavurmaci & Karaman, 2016). Şar (2013) reported that the percentage of daily mobile phone usage duration was higher in adolescents feeling lonely and addicted to mobile phones. Moreover, smartphone addiction was found to be associated with the behavioral problems of low social skills (Engelberg & Sjöberg, 2004), low self-confidence, and low self-esteem. On the other hands, the health risks associated with mobile phones include increased chances of anxiety or depression, bullying, eye strain, headache, and hearing loss (Parasuraman, 2017).

Academic achievement at school is an important component of school-related experiences (Kim, Ahn & Lee, 2019). Especially, generation Z was born in a technologically rich period. Therefore, it is known that smartphones are popular and widely used among the Z generation youth. However, many studies have stated that smartphone addiction and excessive and/or problematic smartphone use is negatively associated with academic achievement (Junco & Cotten, 2012; Lin et al., 2014; Lepp, Barkley & Karpinski, 2014). Tindell and Bohlander (2012) indicated that the majority of students use smartphones in the classroom. Moreover, Lin et al. (2014) have emphasized that the sleep quality of young smartphone addicts with low academic success decreased due to the smartphone use in bed and it was stated that they were interested in a smartphone while studying.

Smartphones can provide us access information faster. However, the excessive use or addiction of smartphones can lead to academic failure or loneliness. Therefore, it is important to determine the effect of smartphone addiction, especially on the level of loneliness and academic achievement of the z generation. The research questions of this study are as follows;

H_1: Smartphone addiction has a positive effect on loneliness.
H_2: Smartphone addiction has a negative effect on academic achievement.

In this context, the aim of the present study was to determine the effect of smartphone addiction on loneliness levels and academic achievement of z generation high school students.

2. Method

2.2. Model of the research and Participants

The relational screening model (from the general screening model) was used as the research model. Convenience sampling method was used for the sampling selection and face to face survey method was preferred in the data collection. At the beginning of the study, the purpose and importance of the study was explained to the high school students by the researchers and their voluntary participation was provided. The study procedures were carried out in accordance with the Declaration of Helsinki. In 2018-2019 academic year' spring semester, 490 high school students participated to this study. The survey consists of four sections, namely personal information form, academic achievement, loneliness, and smartphone addiction scales, respectively. All participants' demographic characteristics in the personal information was determined using survey questions. Furthermore, all of the students participate to the study own and use a mobile phone regularly. Moreover, all students were users of at least one social media (e.g. Facebook, Instagram, and Twitter). Body mass indexes of the students were categorized by using Z score tables of WHO-BMI for age standards for children and adolescents between 5 and 19 years for boys and girl, separately (WHO, 2007). Demographic characteristics of the Z generation high school students were given below.

Table 1. Demographic characteristics of the Z generation high school students

Variables			F	%
Age		14	19	3.9
		15	53	10.8
		16	155	31.6
		17	151	30.8
		18	112	22.9
Gender		Girls	221	45.1
		Boys	269	54.9
Social Media Usage using Smartphone	Facebook	Yes	254	51.8
		No	236	48.2
	Instagram	Yes	408	83.3
		No	82	16.7
	Twitter	Yes	220	44.9
		No	270	55.1
Academic Grade	1st class		140	28.6
	2nd class		166	33.9
	3rd class		125	25.5
	4th class		59	12.0

Variables			F	%
Body Mass İndex	Thinness		11	2.2
	Normal		397	81.0
	Overweight		73	14.9
	Obesity		9	1.8
Aims of other Internet Usage using Smartphone	Homework	Yes	244	49.8
		No	246	50.2
	Games	Yes	329	67.1
		No	161	32.9
	Movies	Yes	315	64.3
		No	175	35.7

Variables	$\bar{X}$±SD
Right of monthly GB usage for Smartphone	5.92±4.09
Daily internet usage duration (min.) using Smartphone	194.16±134.49
Grade Point Average (Academic Achievement)	76.77±10.77

2.2.Data Collection Tools

Smartphone addiction scale. In order to determine the risk of smartphone addiction of the participants, Smartphone Addiction Scale developed by Kwon et al. (2013) and adapted to the Turkish language by Noyan et al. (2015) was used. Turkish version of the smartphone addiction scale consisted of one-dimension and 10 items. Scale rating was in order from 1 to 6 (Absolutely Disagree and Absolutely Agree). The total score of the scale ranged from 10 to 60. As the scores obtained from the scale increase, the risk for addiction increases. The Cronbach alpha value of the scale developed in university students was found to be 0.867. In this study, the Cronbach alpha value for high school students was found to be 0.905. This result shows that smartphone addiction scale was reliable for high school students.

UCLA loneliness scale. In order to determine subjective feelings of loneliness or social isolation, UCLA Loneliness Scale short form (ULS-8) developed by Hays and DiMatteo (1987) and adapted to the Turkish language by Yildiz and Duy (2014) was used. The original scale consists of 8 items. However, the factor load of one item ("I am an extrovert person") in the Turkish language is less than 0.30. Therefore, the Turkish version of the scale consists of 7 items and one dimension. ULS-8 is a Likert-type scale with 4 options "(1) Never, (2) Rarely, (3) Sometimes and (4) Always". Additionally, "I can find a friend when I want" item is reverse scored. The total score of the scale ranged from 7 to 28. As the scores obtained from the scale increase, the feelings of loneliness in adolescents increases. The Cronbach alpha value of the scale developed in Turkish adolescents was found to be 0.74. In this study, the Cronbach alpha value was found to be 0.754. This result shows that the UCLA Loneliness Scale was reliable for high school students.

2.3. Statistical analysis

For data analysis, IBM SPSS Statistics 24 was used. Percentage (%) and frequency (f) values regarding demographic characteristics of the students were calculated as descriptive statistics. Skewness and Kurtosis values were checked to determine whether the data showed normal distribution. These values were checked and evaluated between +2 and -2 (George & Mallery, 2003). According to this evaluation, the data showed normal distribution. The relationship between data showing normal distribution was analyzed using Pearson's correlation analysis. To determine the effect of smartphone addiction on high school students' loneliness and academic achievement, linear regression analysis was used. Significance was set at $p<0.05$.

3. Results

Table 2. Results of Pearson's Correlation analysis between variables

Variables		1	2	3	4	5
Right of monthly GB usage for Smartphone	r	1				
(1)	p					
Daily internet usage duration	r	.129	1			
(2)	p	.004**				
Academic achievement	r	-.131	-.103	1		
(3)	p	.004**	.022*			
Smartphone addiction	r	.121	.102	-.092	1	
(4)	p	.007**	.023*	.043*		
Loneliness	r	.003	.087	.033	.208	1
(5)	p	.942	.054	.472	.001**	

When Table 2 was examined, it was determined that a positive relationship between Z generation high school students' smartphone addiction and right of monthly GB usage for smartphone, daily internet usage duration, and loneliness levels, whereas a negative correlation between their academic achievements.

Table 3. Results of Linear Regression analysis regarding the effect of smartphone addiction on loneliness and academic achievement

Model	Variables	Standardized Coefficients β	t	p	R^2	Adjusted R^2	F	p
1	**(Constant)**		22.444	.001**	.043	.041	22.161	.001**
	Smartphone addiction	.208	4.708	.001**				
Dependent Variable: Loneliness Level							Method: Enter	
1	**(Constant)**		60.375	.001**	.008	.006	4.129	.043*
	Smartphone addiction	-.092	-2.032	.043*				
Dependent Variable: Academic Achievement							Method: Enter	

*p< 0.05; **p< 0.01

When Table 3 was examined, it was found that smartphone addiction of Z generation high school students predicted their loneliness and academic achievement at the level of ~4% and ~1%, respectively.

4. Discussion and Conclusion

According to the primary findings of the study, 490 Z generation high school students (age: 16.58±1.07; Body Mass Index: 21.36±2.96) participated in the study. High school students' 45.1% were girls and 54.9% were boys. There was a social media membership of all students (Facebook: 51.8%; Instagram: 83.3%; Twitter: 44.9%) and it was determined that except social media they use their smartphones for doing their homework (49.8%), playing games (67.1%), and watching movies (64.3%). As the factors affecting smartphone addiction, the monthly GB usage rights of the smartphones of the students was 5.92±4.09 GB and the daily internet usage duration was 194.16±134.49 min. However, It was determined that the grade point average of high school students was 76.77 ± 10.77 (Table 1).

Smartphone addiction of smartphone users has been changing according to daily routines, habits, social behaviors, emancipative values, family relations, and social interactions. Haug et al (2015) stated that smartphone addiction was more prevalent in younger adolescents (15–16 years) students compared with young adults (19 years and older). When the literature was examined, Montag et al. (2015) indicated daily internet usage duration of smartphone users as 161.95 ± 83.36 min while Meithz (2011) stated the daily internet usage duration of students as 196.25±65.44 min. Daily internet usage durations of high school students who participated in our study are similar to the results in the literature. However, the high monthly GB usage rights in high school students' smartphone can extend their daily internet usage duration. Thus, smartphone usage duration of high school students may increase. As a matter of fact, it was determined that there was a small and positive relationship between monthly GB usage rights of high school students and daily internet usage durations (r= .129; p= .004). Moreover, it was found that there was a small and positive relationship between the monthly GB usage rights of the smartphones (r= .121; p= .007), the daily internet usage duration (r= .102; p= .023) and smartphone addiction of the students (Table 2).

In a meta-analysis, Sung, Chang, and Liu (2016) have reported that a moderate and positive effect using mobile phones as an education material and/or a teaching tool. However, Giunchiglia et al. (2018) stated that there was a negative relationship between the usage of social media apps during academic activities (in terms of sessions and duration) and students' academic performances. On the other hand, many studies indicated a negative relationship between smartphones and academic achievement (Lepp, Barkley, & Karpinski, 2015; Rashid & Asghar, 2016; Samaha & Hawi, 2016). Moreover, in another meta-analysis, Kates, Wu, and Coryn (2018) indicated that 36 of studies found a negative relationship and 3 studies reported a positive relationship between smartphone addiction and academic achievement. Furthermore, as a result of this meta-analysis, it was determined that smartphone addiction has a small and negative effect on academic achievement. Considering the results of researches between smartphone addiction and academic achievement, there is no clear consensus regarding the size and direction of the effects of smartphone use on academic performance exists within the scholarly literature. According to the results of the present study, there was a small and negative correlation between daily internet usage duration and academic achievement (r= -.103; p= .022). Moreover, there was a small and negative relationship between smartphone addiction and academic achievements (r= -.092; p= .043) of the students (Table 2).

It is not clear whether smartphone addiction affects loneliness or loneliness affects smartphone addiction. However, many studies determined a relationship between smartphone addiction and loneliness (Kim, Cho, & Kim, 2017; Kutlu et al., 2016; Tan, Pamuk, & Dönder, 2013; Ujang et al., 2016). For instance, Çakır and Oğuz (2017) indicated that there was a moderate level positive relationship between smartphone addiction and loneliness levels of high school students. Dikeç ve ark. (2017) determined that there was a low and positive relationship (r= .202, p= 0.01) between smartphone addiction and loneliness levels of high school students. Despite that, Aktürk et al. (2018) expressed that there was no relationship between high school and university students' smartphone addiction and loneliness levels. Moreover, there was no statistically significant relationship between high school and university students' smartphone addiction and loneliness levels.

In the result of the current study, there was a small and positive relationship between smartphone addiction and loneliness levels (r= .208; p= .001) of the students (Table 2). According to the main findings of the study, it was found that smartphone addiction of Z generation high school students predicted their loneliness (Adjusted R2= .041; p= .001) and academic achievement (Adjusted R2= .006; p= .043) at the level of ~4% and ~1%, respectively (Table 3). Although these results show that there is an effect of smartphone addiction on loneliness and academic achievement, we think that this effect is related to the intended use of smartphones. Using smartphones as a teaching tool by high school students provides students to access information faster. Thus, students can access information more practical. Moreover, saving high school students from smartphone addiction (4% effect on loneliness) may reduce their behavioral addiction like social isolation, social skills, and social withdrawal levels, and even increase their level of face-to-face communication. In addition, the limitation of monthly GB usage rights by their parents may also reduce their daily smartphone usage duration. The apps used by high school students on their smartphones should be supervised and the educational role of these apps should be considered by their parents. In addition, in order to reduce the loneliness levels of high school students, they can be directed to extracurricular or sportive activities.

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