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Developing the Scales of Parent Reactions for Increasing and Decreasing Students' Study Motivation

Doç. Dr. Ali ERYILMAZ*

Osmangazi Üniversitesi, Eğitim Fakültesi, Psikolojik Danışmanlık ve Rehberlik Bölümü, Eskişehir / Türkiye

Uzm. Maarif MAMMADOV

Osmangazi Üniversitesi, Eğitim Fakültesi, Psikolojik Danışmanlık ve Rehberlik Bölümü, Eskişehir / Türkiye

Abstract

The aim of the present study is that development of the scales to measure parent reactions for increasing and decreasing students' study motivation, and also to investigate this scales' psychometric properties. A total of 235 high school students took part in the present study. 113 of those students (48.1%) were female and 122 of them (51.9%) were male students. In order to evaluate the validity of the developed scales, the Study Motivation Scale was used. Data analysis was carried out with the help of exploratory and confirmatory factor analysis, reliability and validity analysis. As a result of the study two important scales which were named that Scales of Parent Reactions for Increasing and Decreasing Students' Study Motivation were obtained. Dimension of Scales of Parent Reactions for Increasing Students' Study Motivation

* Sorumlu Yazar. Tel: +90 222 239 37 50-1637 E-posta:erali76@hotmail.com

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were as follows: Reactions as autonomy supportive parenting, competence supportive parenting, and rewarding students for studying, building positive study environment and escaping from lowering students' self-esteem of parents increase the motivation of the students to study. Additionally, Dimension of Scales of Parent Reactions for Decreasing Students' Study Motivation were as follows: Comparing students with others, exerting pressure/control on students, lowering students' self-esteem and self-efficiency, punish students for negative academic results.
Keywords: Parental reactions; High school students; Motivation to study; Scale.

Ders Çalışmaya Motive Olmayı Artıran ve Azaltan Ebeveyn Tepkileri Ölçeklerinin Geliştirilmesi

Öz

Bu çalışmanın amacı, ders çalışmaya motive olmayı artıran ve azaltan ebeveyn tepkileri ölçeklerinin geliştirilmesidir. Çalışma, 14-17 yaşları arasında yer alan 235 lise öğrencisi üzerinde gerçekleştirilmiştir. Çalışma grubunda yer alan öğrencilerin 113'ü kız (%48.1) ve 122'si ise erkektir (%51.9). Ölçeğin geçerliliği için Ders Çalışmaya Motive Olma Ölçeği kullanılmıştır. Verilerin analizinde, açımlayıcı ve doğrulayıcı faktör analizinden, güvenirlik ve geçerlik analizlerinden yararlanılmıştır. Ders çalışmaya motive olmayı artıran ebeveyn tepkileri olarak; özerkliği destekleyici tepkiler vermek, yetkinliği destekleyici tepkiler vermek, öğrenciyi çalışması için ödüllendirmek, pozitif çalışma ortamı oluşturmak ve öğrencinin özsaygısını düşürücü tepkilerden kaçınmak gibi boyutlar ortaya çıkmıştır. Öte yandan ders çalışmaya motive olmayı azaltan ebeveyn tepkileri olarak; öğrencileri başkaları ile kıyaslamak, öğrenciye baskı uygulamak, öğrencinin özsaygısını ve öz yeterliliğini düşürmek ve olumsuz akademik sonuçlar için öğrenciyi cezalandırmak gibi boyutlar ortaya çıkmıştır. Sonuç olarak bu çalışmada geliştirilen ölçeklerin güvenilir ve geçerli oldukları bulunmuştur. İlgili ölçeklerle gelecekte çeşitli çalışmalar yapılabilir.
Anahtar Kelimeler: Ebeveyn tepkileri; Lise öğrencileri; Çalışmaya motive olmak; Ölçek.

Introduction

The adolescence is a period where quite a lot of changes are lived in cognitive, emotional, physical and social aspects (Eryılmaz, 2012). The relations between the adolescents and parents are important for adolescents to face their next growing periods (Collins and Laursen, 2004; Eberly and Montemayor, 1999). Although the high school students spent time with their peers, this does not mean that their peers took the place of their parents. The parents are still the important guide for adolescents in many areas of their lives. One of these areas is academic life (Steinberg, 2005).

The content of academic lives of high school students consist of a lot of issues. For instances, some subjects as attending the school (Fredericks, Blumenfeld and Paris, 2004), engagement (Appleton, Christenson and Furlong, 2008), building relationships with teachers and friends (Eryılmaz, 2014), motivation and learning (Pintrich and Schunk, 2002; Stipek, 2002) might be exemplified for academic lives. Studying (lesson) is also an important part of academic lives (Eryılmaz and Mammadov, 2016a, 2016b). Studying is described as working by using the resources in order to learn a certain subject or repeating the information given in the lesson in order to learn them exactly in Turkish Language Dictionary (2016). Studying is discussed in literature as an indicator of being motivated to learn. For instances, Slavin (2003) specified that the students arrange all their behaviors in order to achieve that subject in case they are motivated to learn a subject. Studying can also be evaluated as one of these behaviors. At the same time, studying can also be evaluated as a part of learning process by organizing itself (Zimmerman and Martinez-Pons, 1988). Besides all these, the studying is discussed as a Japan learning model (Chokshi and Fernandez, 2004).

There have been carried out very few studies in literature about being motivated to study. Revee (1993) specified that the people making studies about motivation should set a target phenomenon. The different target phenomenon has been discoursed in the studies made about academic motivation. For example, Vallerand, Blais, Brier and Pelletier (1989) have chosen "having the high school education of individuals" as a target phenomenon. Also in another study, Eryılmaz and Ercan (2014) have chosen studying that has been an important tool for learning as target phenomenon. In another study, Eryılmaz and Mammadov (2016a, 2016b) specified that there are three cases

of being motivated to study as internal, external and a-motivational, but there are also some Meta factors that increase and also decrease these cases. In this regard, they have found that there are four important factors about the learner that affects the students to be motivated to study. These factors: "lessons to be studied are suitable for the students' interests and skills", "being in a positive study environment", "satisfaction of expectations from the teacher" and "being in a positive physical and an emotional state". There might be found many factors that affect the situation of motivation of the students. One of these factors is also their parents (Figure 1).

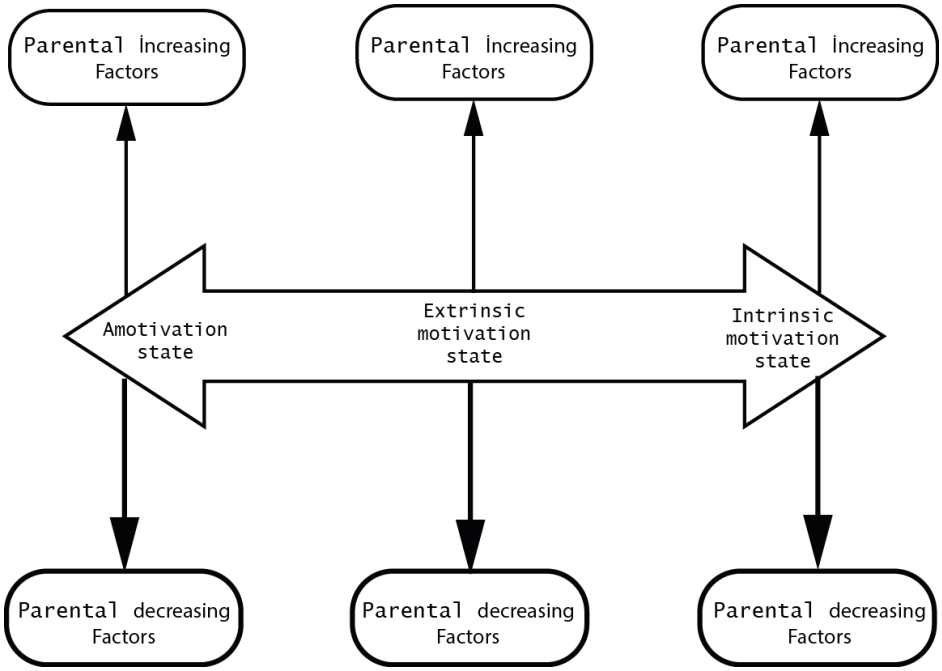

Figure 1. Parental factors for increasing and decreasing students' study motivation.

The responses of the parents have close relation with the children to achieve the academic tasks. For example, the involvement of parents was found closely related with academic achievement of elementary students, for the students to be well-being, to attend the school, for the attitudes of students, to prepare homework and for the students to reach educational goals (Greenwood and Hickman, 1991). Similarly, the involvement of parents was found related with academic achievement of high school students, for the

students to allocate time to homework, to exhibit positive attitudes about the school and to attend the school (Paulson, 1994; Trusty, 1996). While above studies have been examined, it is seen that the studies are done about the positive impact of the involvement of parents in literature mostly. However, the parents have important impact over the motivation of students as well. Although the number of the studies realized about this subject increases (Gonzalez-DeHass, Willems and Holbein, 2005), it has been seen that the number of the studies aimed at the factors that are regarding the parents of the students who decrease or increase the situation of the students to be motivated to study have been scarcely any. As a result, in this study, it was targeted to develop some scales aimed at the factors that are regarding the parents of the students who decrease or increase the situation of the students to be motivated to study and to examine the psychometric properties of these scales.

Method

The main feature of the present study is scale development. With this perspective, there have been two important sub-goals of the present study:

a) Development of the scale that parent reactions for increasing students' study motivation, and also to investigate this scale' psychometric properties.

b) Development of the scale that parent reactions for decreasing students' study motivation, and also to investigate this scale' psychometric properties.

The data analyses were conducted using statistical techniques such as exploratory and confirmatory factor analysis, reliability and validity analysis. High school students were included in this study, and also data were collected based on voluntary contribution and group application. Additionally, all ethical concerns were followed during the study.

Procedure

As the first concept of the present research is study. Studying is described as "working by using the resources in order to learn a certain subject or repeating the information given in the lesson in order to learn them exactly" in Turkish Language Dictionary (2016). Studying is discussed in literature as an indicator of being motivated to learn. For instances, Slavin (2003) specified that the students arrange all their behaviors in order to achieve that subject in

case they are motivated to learn a subject. Studying can also be evaluated as one of these behaviors. Motivation is the most important concept in education setting. Others concepts, factors that are regarding the parents of the students who decrease or increase the situation of the students to be motivated to study have been investigated in this present study. In the preparation of the items to be included in the developed scale, firstly the relevant literature was reviewed (Appleton, Christenson and Furlong, 2008; Chokshi and Fernandez, 2004; Eryılmaz and Ercan, 2014; Eryılmaz and Mammadov, 2016a, 2016b; Fredericks, Blumenfeld and Paris, 2004; Pintrich and Schunk, 2002; Revee, 1993; Slavin, 2003; Stipek, 2002; Zimmerman and Martinez-Pons, 1988). As a second way to develop scale items, qualitative interview were held with 28 high school students (12 males, 16 females). In the interview process, students were asked about parental factors that increase and decrease their motivation to study. Content-analysis method based on units of sentences was conducted all responses. As a result of the analysis, factors such as autonomy supportive parenting (my desire to study is increasing when my parents do not manage time to study, because I know time to study), competence supportive parenting (my desire to study is increasing, thus my parents believe that I will be successful), rewarding students for studying (my desire to study is increasing, thus my parents buy some presents), building positive study environment (my desire to study is increasing when my parents prepare quite study environment), and escaping from lowering self-esteem (my desire to study is increasing when my parents do not judge myself), for increasing to study motivation; comparing students' with others, exerting pressure/control on students, lowering students self-esteem and self efficiency, punishing students for negative academic results for decreasing to study motivation. Data collected from students in compliance with the literature were turned into scale items. 30 items for increasing factors and 25 items for decreasing factors in the scales' preliminary form were shown to experts who have PhD in educational psychology and measurement-assessment in terms of their structure, expression and contribution, and then revised accordingly. As a result of revisions, 25 and 20 items were agreed upon to remain in the preliminary form of the scales. Students responded to the items in a 4-point scale changing between always (4) and never (1).

In this study, some analysis techniques were used. For instance, in order to collect information on the scale's structure validity, the suitability of the

data for exploratory factor analysis was evaluated with the Kaiser-Meyer-Olkin (KMO) coefficient and the Bartlett Sphericity test. Exploratory factor analysis was conducted with the method of orthogonal rotation. In addition to the findings from the exploratory factor analysis, a confirmatory factor analysis was conducted in order to evaluate the structural validity of the scale. The reliability of the scale that parent reactions for increasing students' study motivation was measured with the internal consistency technique of Cronbach's Alpha. The concurrent validity of the scales was measured with the Motivation to Study Scale.

Study Group

Purposive sampling method was implemented in the present study. The high schools providing the data reside in Ankara. A total of 235 high school students took part in the present study. 113 of those students (48.1%) were female and 122 of them (51.9%) were male students. The number of students studying at the general high school is 119 (50.9%), while the number of vocational high school students is 116 (49.1%). The age interval of students is 14-17 ($\bar{x}$=16.60; Sd=1.04). Distribution of students by age is like the following: 41 students were aged 14 (17.4%), 77 students were aged 15 (32.8%), 64 students were aged 16 (27.2%), 53 students were aged 17 (22.6%).

The Instrument That Has Been Used for the Concurrent Validity

In order to evaluate the validity of the developed scales, the Study Motivation Scale was used. This scale was developed by Eryılmaz and Ercan (2014). The scale has been 13 items and three factors which are intrinsic motivation, extrinsic motivation and amotivation. All statements require responses based on a 4 point likert scale (1: not applicable at all – 4: very applicable). The Cronbach Alpha value was 0.80.

Findings

Findings were presented two main dimensions in this section. Thus, firstly findings of the scale that parent reactions for increasing students' study motivation were explained. Secondly, findings of the scale that parent reactions for decreasing students' study motivation were explained.

Findings of the Scale That Parent Reactions for Increasing Students' Study Motivation

Factor structure of the scale that parent reactions for increasing students' study motivation

Exploratory factor analysis

In order to collect information on the scale's structure validity, the suitability of the data for exploratory factor analysis was evaluated with the Kaiser-Meyer-Olkin (KMO) coefficient and the Bartlett Sphericity test. As a result of the analysis conducted KMO value was 0.88. As a result of the Bartlett Sphericity test, the chi-square test statistic was significant (χ^2=2088.244, $p<.01$). In the light of these data, moving from the assumption that the factors may be related, exploratory factor analysis was conducted with the method of orthogonal rotation (Çokluk, Şekercioğlu and Büyüköztürk, 2010).

A 5-component scale was developed as a result of the exploratory factor analysis. 5 items that did not comply with the scale's structure and gave weight to more than one factor were removed from the scale. As a result, a structure containing 20 items with eigen values higher than 1 and 5 factors emerged.

The first sub-factor (autonomy supportive parentig) consists of 5 items. The corresponding eigen value is 7.191 and this sub-factor explains 15.81% of the entire variance by itself. The second sub-factor (competence supportive parentig) consists of 5 items and it has an eigen value of 2.094. This sub-factor explains 14.14% of the entire variance by itself. The third sub-factor (re-warding students for studying) consists of 3 items and it has an eigen value of 1.233. This sub-factor explains 11.93% of the entire variance by itself. The fourth sub-factor (building positive study environment) consists of 4 items and its eigenvalue is 1.456. The fourth sub-factor by itself explains 12.53% of the entire variance. The last sub-factor eingen value is 1.033 and this factor explains 10.63% of the entire variance. The five factors together, explain 65.03% of the variance in the scale. Factor weight values of items in the scale change between 0.55 and 0.88.

Table 1. The Results of the Exploratory Factor Analysis

	Factors				
Items	**Autonomy supportive parenting**	**Competence supportive parenting**	**Rewarding students for studying**	**Building positive study environment**	**Escaping from lowering self-esteem**
1	.55				
2	.58				.35
3	.82				
4	.81				
5	.73				
6	.35	.66			
7		.78			
8		.77			
9	.34	.57			
10		.59	.34		
11			.85		
12			.88		
13			.77		
14				.73	
15				.75	
16				.70	
17				.59	.36
18					.70
19	.32				.68
20					.79
Explained variance; Total: %65.032; Factor 1: %15.814; Factor 2: %14.135; Factor 3: %11.928; Factor 4: %12.525; Factor 5: %10.630					

Confirmatory factor analysis

In addition to the findings from the exploratory factor analysis, a confirmatory factor analysis was conducted in order to evaluate the structural validity of the scale. Significance levels of the t values were assessed for the variables observed as a result of the confirmatory factor analysis. As a result

of the analysis, the values for all observed variables were significant on a level of 0.01 (Çokluk, Şekercioğlu and Büyüköztürk, 2010).

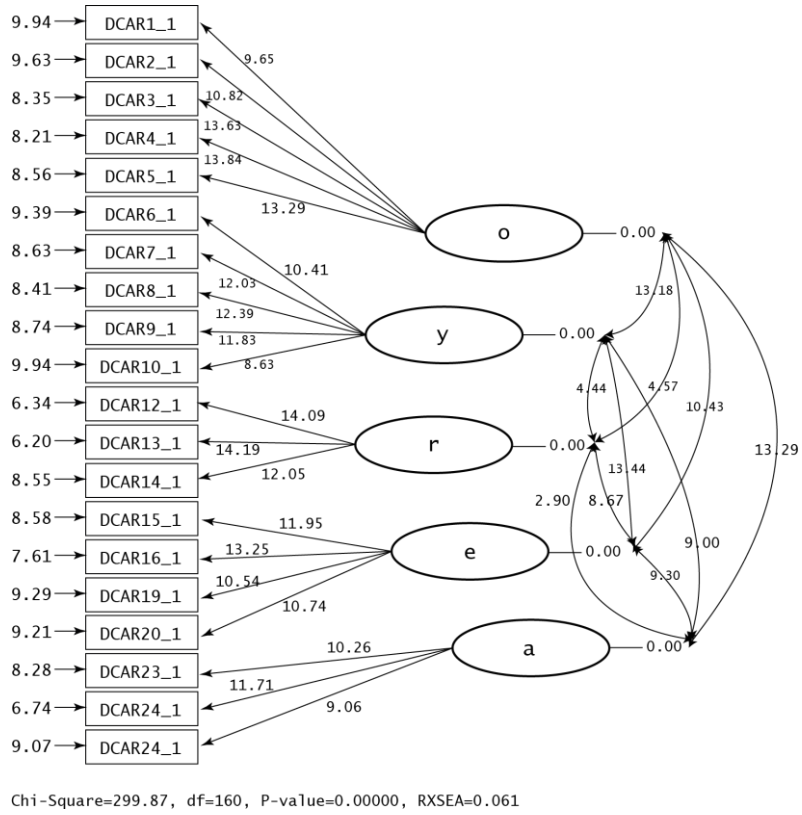

Figure 2. Results of the confirmatory factor analysis (t-values). (o=Autonomy supportive parenting, y=Competence supportive parenting, r=Reward students for studying, e=Building positive study environment, a=Escaping from lowering self-esteem)

Other values analyzed as a result of the confirmatory factor analysis are error variances of the variables (Figure 3). None of the items or the implicit variable had a high error variance. Values that need to be analyzed in scope of the finding from the confirmatory factor analysis are fit values. Fit index was assessed in terms of 'χ^2/sd'. χ^2 =299.87 and sd=160 (Figure 2, 3). The index was 299.87/160=1.87. As the value is under 3, it is a perfect fit. If we look at other indexes, RMSEA value being 0.061 is a good fit, GFI=0.89 (acceptable fit), AGFI=0.85 (acceptable fit), RMR=0.060 (good fit), NNFI=0.97 (perfect

fit), CFI=0.97 (perfect fit) (Çokluk, Şekercioğlu and Büyüköztürk, 2010).

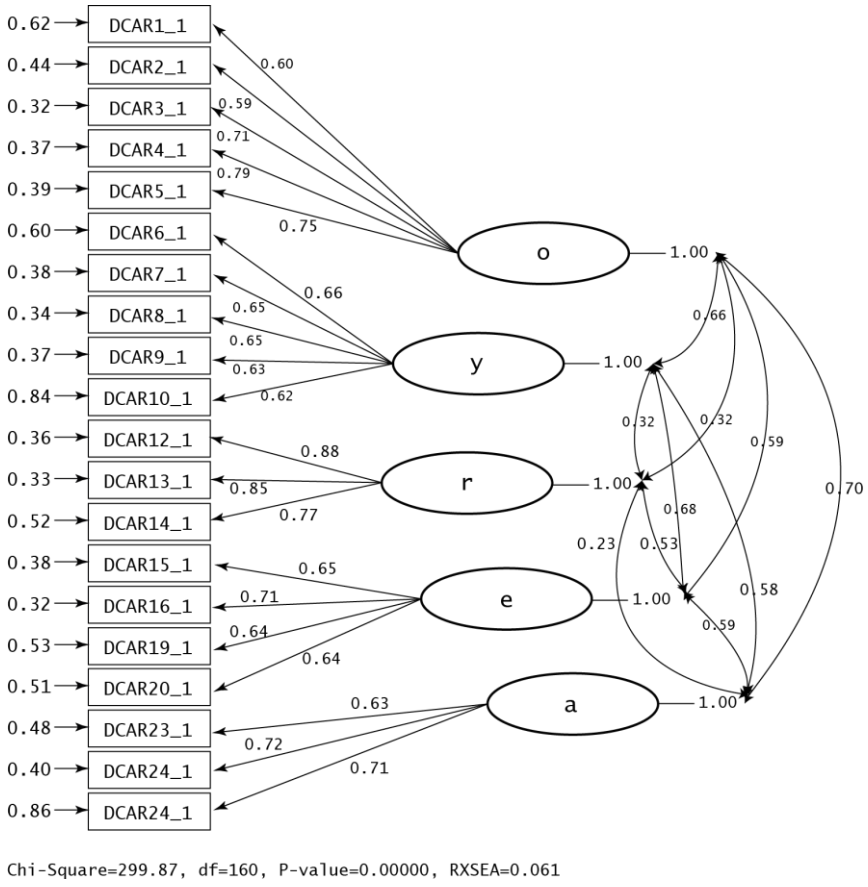

Figure 3. Results of the confirmatory factor analysis (factor weight values and error variances).

Reliability of the scale that parent reactions for increasing students' study motivation

The reliability of the scale that parent reactions for increasing students' study motivation was measured with the internal consistency technique of Cronbach's Alpha. In terms of the reliability of the scale, Cronbach's Alpha values were computed for each sub-factor and for the entire scale. The entire scale had a reliability value of 0.90. The Cronbach's Alpha reliability coefficients for the sub-factors were the following; 0.84 for the first, 0.80 for the second, 0.84 for the third, 0.80 for the fourth and 0.72 for the fifth sub-factor.

Findings about reliability show that the scale has a satisfactory level of reliability (Çokluk, Şekercioğlu and Büyüköztürk, 2010).

Findings regarding the validity of the scale that parent reactions for increasing students' study motivation

The concurrent validity of the scale that parent reactions for increasing students' study motivation was measured with the Motivation to Study Scale. To reach the findings about concurrent validity, the data were analyzed with Pearson product-moment correlation coefficient. Results of the analysis were shown in Table 2.

Tablo 2. Pearson Correlation Results

	Variables				
	4	5	6	7	8
1.Intrinsic motivation state	.37**	.39**	.20**	.41**	.26**
2. Extrinsic motivation state	.36**	.35**	.21**	.38**	.23**
3. Amotivation state	-.12	-.17**	-.01	-.19**	-.07
4. Autonomy supportive parenting	1	.58**	.28**	.50**	.54**
5. Competence supportive parenting		1	.29**	.56**	.42**
6. Rewarding students for studying			1	.46**	.19**
7.Building positive study environment				1	.45**
8.Escaping from lowering self-esteem					1

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

Findings of the Scale That Parent Reactions for Decreasing Students' Study Motivation

Factor structure of the scale that parent reactions for decreasing students' study motivation

Exploratory factor analysis

In order to collect information on the scale's structure validity, the suitability of the data for exploratory factor analysis was evaluated with the Kaiser-Meyer-Olkin (KMO) coefficient and the Bartlett Sphericity test. As a result of the analysis conducted KMO value was 0.91. As a result of the Bartlett Sphericity test, the chi-square test statistic was significant

(χ^2=2137.866, *p<.01*). In the light of these data, moving from the assumption that the factors may be related, exploratory factor analysis was conducted with the method of orthogonal rotation (Çokluk, Şekercioğlu and Büyüköztürk, 2010).

A 4-component scale was developed as a result of the exploratory factor analysis. 5 items that did not comply with the scale's structure and gave weight to more than one factor were removed from the scale. As a result, a structure containing 15 items with eigen values higher than 1 and 4 factors emerged.

Table 3. The Results of the Exploratory Factor Analysis

	Factors			
Items	**Comparing students with others**	**Lowering students`self-esteem and self efficiency**	**Exerting pressured control on students**	**Punish students for negative academic results**
1	.83			
2	.88			
3	.85			
4	.79			
17		.83		
18		.76		
16		.75		
19		.71		.36
9			.80	
10			.75	
12	.33		.75	
11		.34	.73	
21				.77
22				.76
23				.75
Explanied variance; Total: %73.534; Factor 1: %21.806; Factor 2: %18.933; Factor 3: %18.389; Factor 4: %14.405				

The first sub-factor (*comparing students with others*) consists of 4 items. The corresponding eigen value is 7.063 and this sub-factor explains 21.81% of the entire variance by itself. The second sub-factor (*lowering students` self-esteem and self efficiency*) consists of 4 items and it has an eigen

value of 1.762. This sub-factor explains 18.93% of the entire variance by itself. The third sub-factor (*exerting pressured control on students*) consists of 4 items and it has an eigen value of 1.145. This sub-factor explains 18.39% of the entire variance by itself. The fourth sub-factor (*punishing students for negative academic results*) consists of 3 items and its eigen value is 1.061. The fourth sub-factor by itself explains 14.41% of the entire variance. The four factors together, explain 73.53% of the variance in the scale. Factor weight values of items in the scale change between 0.71 and 0.88.

Confirmatory factor analysis

In addition to the findings from the exploratory factor analysis, a confirmatory factor analysis was conducted in order to evaluate the structural validity of the scale. Significance levels of the t values were assessed for the variables observed as a result of the confirmatory factor analysis. As a result of the analysis, the values for all observed variables were significant on a level of 0.01 (Çokluk, Şekercioğlu and Büyüköztürk, 2010).

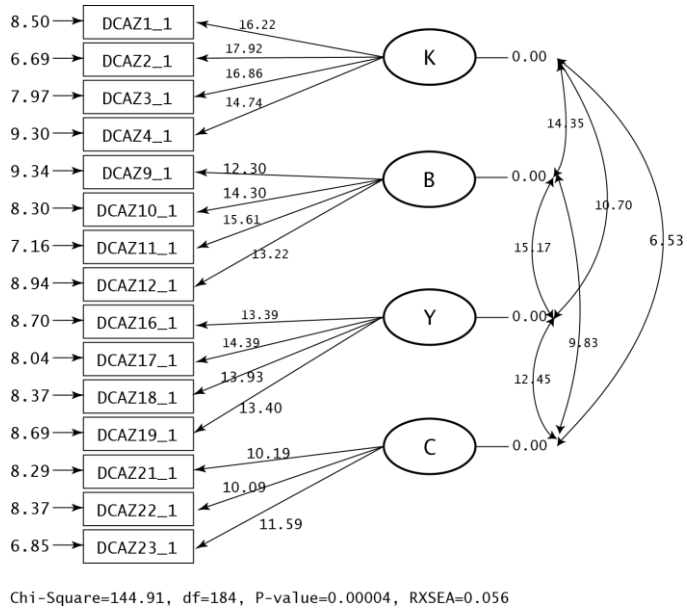

Figure 4. K-Comparing students with others, B-Exerting pressured control on students, Y-Lowering students` self-esteem and self efficiency, C-Punish students for negative academic results.

Other values analyzed as a result of the confirmatory factor analysis are

error variances of the variables (Figure 4). None of the items or the implicit variables had a high error variance. Values that need to be analyzed in scope of the findings from the confirmatory factor analysis are good fit values. Fit index was assessed in terms of 'χ^2/sd'. χ^2 =144.91 and sd=84 (Figure 4). The index was 144.91/84=1.73. As the value is under 3, it is a perfect fit. If we look at other adaptive indices, RMSEA value being 0.056 is a good fit, GFI=0.92 (acceptable fit), AGFI=0.89 (acceptable fit), RMR=0.038 (good fit), NNFI=0.98 (perfect fit), CFI=0.99 (perfect fit) (Çokluk, Şekercioğlu and Büyüköztürk, 2010).

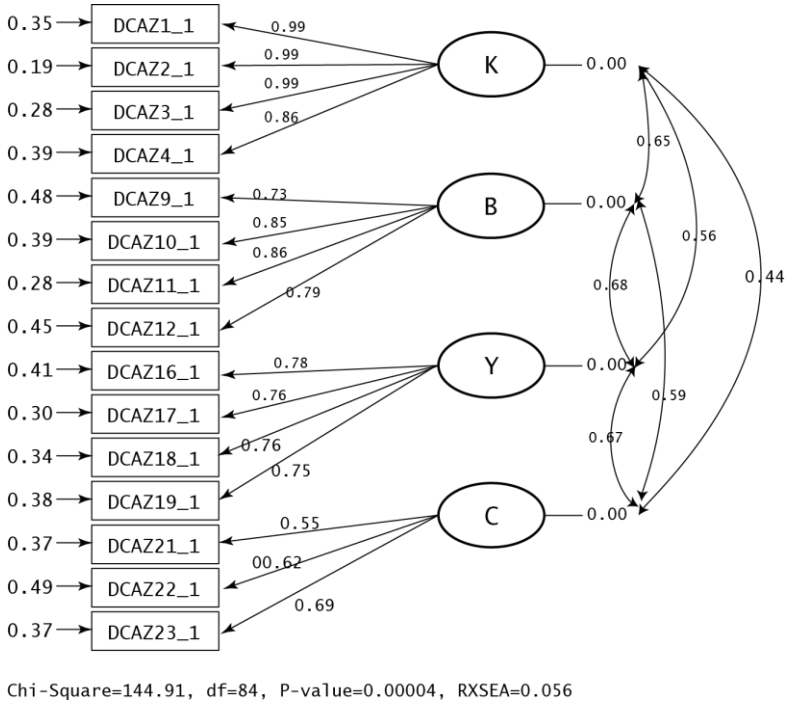

Figure 5. K-Comparing students with others, B-Exerting pressured control on students, Y-Lowering students` self-esteem and self efficiency, C-Punish students for negative academic results.

Reliability of the scale that parent reactions for decreasing students' study motivation

The reliability of the scale that parent reactions for decreasing students' study motivation was measured with the internal consistency technique of Cronbach's Alpha. In terms of the reliability of the scale, Cronbach's Alpha

values were computed for each sub-factor and for the entire scale. The entire scale had a reliability value of 0.92. The Cronbach's Alpha reliability coefficients for the sub-factors were the followings; 0.92 for the first, 0.87 for the second, 0.87 for the third, 0.74 for the fourth. Findings about the reliability show that the scale has a satisfactory level of reliability (Çokluk, Şekercioğlu and Büyüköztürk, 2010).

Findings regarding the validity of the scale that parent reactions for decreasing students' study motivation

The concurrent validity of the scale that parent reactions for decreasing students' study motivation was measured with the Motivation to Study Scale. To reach the findings about concurrent validity, the data were analyzed with Pearson product-moment correlation coefficient. Results of the analysis were shown in Table 5.

Table 5. Pearson Correlation Results

	Variables			
	4	**5**	**6**	**7**
1. Intrinsic motivation state	-.06	-.17**	-.19**	-.19**
2. Extrinsic motivation state	-.08	-.14*	-.13*	-.17*
3. Amotivation state	.17**	.16*	.16*	.24**
4. Comparing students with others	1	.60**	.51**	.37**
5. Exerting pressured control on students		1	.58**	.45**
6. Lowering students` self-esteem and self efficiency			1	.54**
7. Punish students for negative academic results				1

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

Discussion

In this study, it has been aimed at finding the fact that what are the factors that are regarding the parents of the high school students who decrease or increase the situation of the students to be motivated to study and the psychometric properties of these scales were examined. As a result of the study, such reactions as autonomy supportive parenting, competence supportive parenting, and rewarding students for studying, building positive study environment and escaping from lowering students' self-esteem of par-

ents increase the motivation of the students to study. Also, such reactions as comparing students with others, exerting pressure/control on students, lowering students' self-esteem and self-efficiency, punish students for negative academic results of parents were found as the facts that decrease the motivation of the students to study.

In the literature, academic motivation scale is used mostly about the motivation in training (Vallerand et al., 1989). Some studies were also carried out about being motivated to study. For example, Eryılmaz and Ercan (2014) developed the scale to be motivated to study on the basis of self-determination theory. In this study, being motivated internally, externally and a-motivational extents are found. Also, in another study, Eryılmaz and Mammadov (2016a) developed the scale of students based on the factors that increase the motivation to study. It was found that the dimensions of this scale are formed as lessons to be studied is suitable for the students' interests and skills, being in a suitable studying environment, teacher of the class is able to satisfy students' expectations, being in a positive physical and emotional state. Similarly, Eryılmaz and Mammadov (2016b) determined three student based factors that decrease the motivation to study: Being in negative bodily and emotional state, lessons' unsuitability with students' interests and abilities, dealing with or killing the time on technological devices. It has been seen that the studies that especially examine the reactions of parents about being motivated to study are not found in literature. This study contributed the literature at this point.

The parents have important impact on the motivations of students and feeling themselves competent. For example, the academic motivation of students increases as a result of the fact that the parents give more importance and value to academic success of the students accordingly (Marchant, Paulson and Rothlisberg, 2001). If the parents support the students to read, control what they read and helped them find the meanings of the words, the motivation of the students about reading the books increase (Adunyarittigun, 1997; Gonzalez-DeHass, Willems and Holbein, 2005). While these studies are evaluated generally, it is seen that the impact of the parents on the motivation of students is discussed in the context of parental involvement. Also, it is associated with the different subjects of academic context. However, there should be a target phenomenon about motivation (Reeve, 1993). In this study,

being motivated to study was chosen as target phenomenon. The number of the studies is very few that directly address this target phenomenon in the literature. It might be said that this study contributed the literature in terms of exposing the motivational factors about the parents at this point.

There are a lot of theories and perspectives that define the learning of the individuals. One of them is also socio-cultural and ecological perspective (Cole, 1996). The only effective factor in learning of students is not themselves according to these perspectives. There are many systems that affect the learning and academic behaviours of students. The school, family, community and economic systems might be given as a sample for these facts (Bronfenbrenner, 1979). The family system as a system and the reactions of the parents were examined in this study about being motivated to study of students. According to socio-cultural perspective, the parents become some effective factors about motivation and learning of students by acting as "scaffold" (Vygotsky, 1978). Although these explanations are important, there are very few studies in literature that are aimed at the fact that how parents become a "scaffold" about being motivated to study of students. At this point, it might be said that this study contributed the literature in terms of exposing the impact of the parents about being motivated to study of socio-cultural theory.

In this study, supporting the competence and autonomy of the students by the parents were found as the factor that increases motivation for studying. Also, in this study, sabotaging the competence and autonomy of the students by the parents were found as the factor that decreases motivation for studying. At this point, this finding is consistent with studies in literature. According to self-determination theory, the individuals have naturally three important needs as belonging, competence and autonomy (Ryan and Deci, 2000). Satisfying these needs is closely related with the motivation of students. For example, the internal locus of control of students' increases and the students feel themselves more competent while the parents support the autonomy of students (Ryan and Stiller, 1991). These findings show the applications of self-determination theory in different areas. Also, the impact of self-determination theory on students to be motivated to study is seen in this study. At this point, it is possible to say that this study pulled the impact area of self-determination theory to a different point and extended it accordingly.

In addition to all these, the self-determination process does not emerge in a split second. It has a developmental nature (Ryan, Deci and Grolnick, 1995; Ryan and Deci, 2000). It can be possible to say that some of the reactions of parents' discussed in this study showed the developmental nature of self-determination process about studying.

In this study, the self-esteem arisen as an important factor about increasing the will to study and decreasing it. Having the reactions that decrease self-esteem for the students from their parents decreases their will to study; and also having the reactions from their parents that increase self-esteem for the students increase their will to study. It is seen that a similar pattern arises also about self-efficacy. While the literature is examined, the self-esteem has an important and significant impact about academic success and also academic motivation although it is at a lower level. On the other hand, the impact of self-efficacy on academic success and academic motivation was found higher by comparison with self-esteem (Bong and Clark, 1999). The subjects of self-esteem and self-efficacy in literature; are discussed more in some areas as academic success, academic motivation and academic performance (Bong and Clark, 1999; Lane, Lane and Kyprianou, 2004). The scale dimensions in this study differentiate from the others because of the fact that they discuss the subjects of self-esteem and self-efficacy within the context of being motivated to study.

In addition to all these, in this study, it is seen that the parents use reward and punishment as a tool for the students to be motivated to study. We meet using the reward and punishment as a behaviour modification method while we look from the perspective of classical learning theorists (Bower and Hilgard, 1981; Hulse, Egeth and Deese, 1980; Schunk, 1991). At this point, the parents use the reward and punishment method as a mediator for their children to study. According to self-determination theory, the reward and punishment are seen as a tool to provide extrinsic motivation (Ryan and Deci, 2000). However, in literature, there are also some studies claims that the rewarding increases intrinsic motivation. For example, the extrinsic motivation level of the students increases in association with the increase in the instructions of parents over the students to do their homework; the intrinsic motivation level of the students increases while the parents encourage and reward their children (Ginsburg and Bronstein, 1993). As a consequence, the

reward and punishment extents of the scales discussed in this study in context of especially extrinsic motivation seem that they support the literature.

As a result, human behaviours are affected by the environment. Bandura (1977) approaches this interaction process as reciprocal determinism. At this point, the positive and negative behaviours of parents are seen as the important factor that impacts the students to be motivated to study. The finding of this study can be used in making guidance to parents. Also, the findings of this study can be used in motivating the children by the parents to study. This study was carried out on high school students. Realizing the similar studies in different educational levels can contribute to the literature.

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