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## An Explanatory Model of Academic Success

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### Abstract

The aim of this study is to test the model which explains the academic success suggested by the researchers by considering the theoretical explanations and the results of the studies in the literature. The hypotheses tested in accordance with this general aim are: The number of social media accounts and the duration of internet usage positively and directly affect internet addiction, internet addiction negatively and directly affects academic motivation, academic motivation positively and directly affects school attachment and school attachment positively and directly affects academic success. In the model explaining academic success, measurement tools were applied to 235 high school adolescents. Internet Addiction Test-Short Version by Young, Academic Motivation Scale, School Attachment Scale for Children and Adolescents along with personal information form prepared by the researchers were used as data collection tools. Analyses were performed using SPSS 20 and AMOS software. In the test phase of the model, covariance matrix and maximum likelihood method were used. As a result of the analysis, the proposed hypotheses were confirmed and the proposed hypothetical showed compliance [ $\chi^2=75.510$ ,  $df=33$ ,  $\chi^2/df=2.288$ ,  $RMSEA=0.079$ ,  $SRMR=0.078$ ,  $GFI=0.93$ ,  $AGFI=0.89$ ,  $CFI=0.88$ ;  $IFI=0.80$ ,  $TLI (NNFI)=0.85$ ]. According to the results of the research it has been concluded that the higher number of social media accounts and the increase in the duration of internet usage leads to internet addiction, internet addiction negatively affects academic motivation, low level of academic motivation affects school attachment negatively and low level of school attachment does not negatively affect academic success.

**Keywords:** Academic Success, Academic Motivation, School Attachment, Internet Addiction

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## Introduction

Along with the developments in information communication technologies, internet has started to take its place in many areas of our lives. Internet users were initially seen only as consumers, but with web 2.0 technologies, they began to be defined as a society consuming while producing (Güçdemir, 2012, p. 29; O'Reily, 2005). With Web 2.0, internet users have interacted with people they do not know in real life using their social media accounts and started to spend time together on the internet. It can be said that people's habits have started to change with social media.

There are different definitions of social media in the literature. Social media is a technology-based application that enables people to share things with each other (Van Dijk, 2016, p. 251), create personal profiles and communicate and build relationships on certain issues (Khan, 2012), that allows sharing posts (Roy & Chakraborty, 2015) that enables cultural transfer between users through the gathering of users from different countries (Srivastava, 2012). Social media has become an indispensable element of the daily lives of a significant portion of people whether they are technologically literate or not due to its format that everyone can use (Çam & İşman, 2013).

Users devote a significant part of their time to social media applications, which are used extensively by young people and especially students (Küçükali, 2016). According to the data by wearesocial.com on the internet and social media usage in countries around the world in the first quarter of 2018, approximately 4.1 billion people use the internet and 3.3 billion people actively use social media worldwide. In the same report, it is stated that the number of social media users has increased by 13% compared to the previous 12 months (Wearesocial, 2018). These data show that the usage of social media involves a wide audience and the number of users increases on a daily basis. Depending on the development level of the countries, the internet usage duration of people increases with each passing day (TUIK, 2017). The increase in duration of internet usage has led to the emergence of internet addiction concept. The concept of internet addiction was first used by Goldberg in 1996, and the first tool for measuring internet addiction was developed by Kimberly S. Young (Goldberg, 1996; Kraut et al., 2002; Young, 1998). Although there is no consensus on internet addiction, internet addiction can be explained as excessive use of the internet, the state of being excessively frustrated and aggressive when unable to access the internet, intensive use of the internet at a level that will adversely affect basic daily work and functions (Chen, Chen, & Paul, 2001; Gonzalez, 2002; Kutlu, Savci, Demir, & Aysan, 2016; Simkova & Cincera, 2004: 5; Leung, 2004; Yellowlees & Marks, 2007). Individuals who are addicted to the internet neglect their basic duties (Ceyhan, 2008) and have problems in friendship and family relations (Cao & Su, 2007).

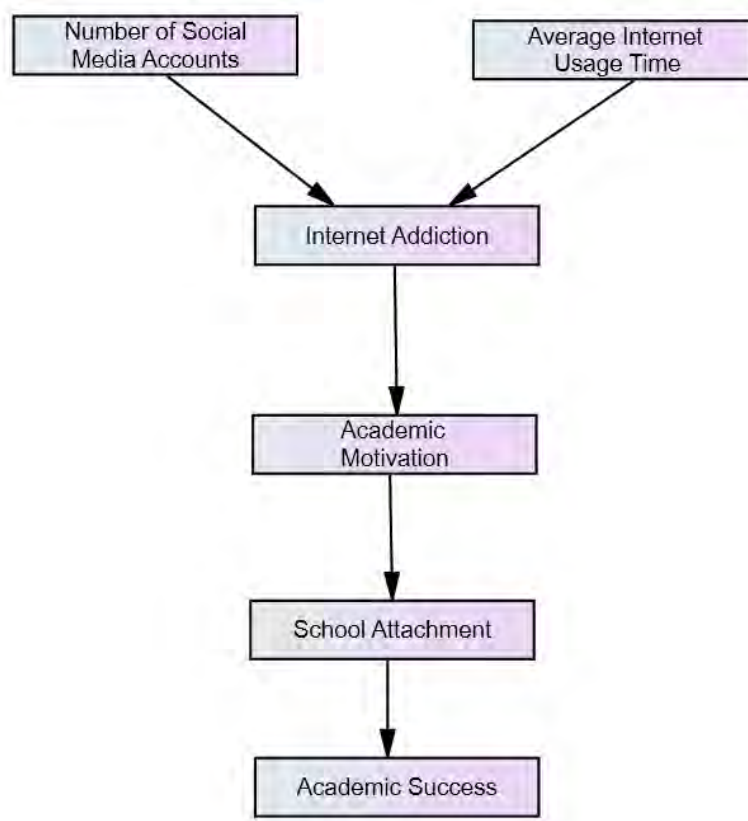
Researches have shown that as the number of individuals' social media accounts increases, the time they spend on the internet increases (Caplan, 2002; Çelik, 2018; Griffiths, 2000; Işık, 2007), and it has been determined that this situation triggers the risk of internet addiction in individuals

(Andreassen & Pallesen, 2014; Beard & Wolf, 2001; Davis, 2001; Karaiskos, 2010; Oktan, 2015). As for internet addiction, adolescents are potentially the risky groups (Bölükbaş, 2003). Internet addicts develop attention deficit disorder and these individuals skip classes as they spend too much time on the internet (Suhail & Bargees, 2006) and as a result, they cannot perform their academic tasks at the desired level (Becker, Alzahabi, & Hopwood, 2013).

Academic motivation can be defined as the energy (Bozanoğlu, 2014;) that motivates students to maintain their willingness to fulfill their academic responsibilities (Ryan & Connel, 1998). Students' academic responsibilities include such examples as school attendance, doing homework, obeying class and school rules, and preparation for exams. In this respect, it can be said that academic motivation is an important parameter that determines students' attendance and success in their classes (Clark & Schroth, 2010: 70). Academic motivation, which is vital for school effectiveness (Bedel, 2015; Erdil, 2010; Korkmaz, 2011; Maulana, Opdenakker, & Bosker, 2014; Skinner, Pitzer, & Steele, 2016), can be specified as students' efforts to fulfill their academic responsibilities, the continuity of this effort and their success (Schunk, Meece, & Pintrich, 2014). Students with high academic motivation tend to better understand the subject with all their energy (Balkıs, Duru, Buluş, & Duru, 2006), to spend more time in school (Sternberg & Williams, 2009), to participate in the class continuously and actively (Vallerand & Bissonnette, 1992), and to keep a positive attitude towards the lessons (Akandere, Özyalvaç, & Duman, 2010). In other words, academic motivation is an important parameter that directly affects student achievement. Since academic motivation has a decisive role in achieving the goals determined by education, it is considered important to pay attention to the factors that affect students' motivation levels. The first significant point in terms of academic motivation is the fulfilment of students' needs in autonomy, competence and social relations (Deci & Ryan, 1985; Deci, Vallerand, Pelletier, & Ryan, 1991). In this way, motivation levels of the students will increase (Karagüven, 2012). Students' satisfaction with the learning or discovery of new things and the pleasure they receive, their interest and attitudes to lessons, thus their love of books, their participation in lessons are indicators of the fact that the students are motivated by the goals of the school (Vallerand et al., 1992). It can be said that these students have high intrinsic motivation levels. In addition to intrinsic motivation sources, trying to be appreciated, rewarded, and avoid aggressive criticism are each examples of extrinsic motivation (Ryan & Deci, 2000; Vallerand et al., 1992). In terms of education systems, it is understood that students with high academic motivation pursue continuous success (Deci & Ryan, 2004; Elliot & Harackiewicz, 1996; Muraya, Elliot, & Freidman, 2012; Özder & Motorcan, 2013; Uyulgan & Akkuzu, 2014) and they have higher levels of commitment to school (Öncü, 2004; Ratelle, et al., 2007; Schunk, Meece, & Pintrich, 2014;). When literature is examined, the concept of school attachment is related to school bonding, school engagement and student engagement (Demir, 2017; Doğan, 2014; Libbey, 2004): the concept of school attachment is conceptualized as school bonding (Jenkins, 1997; Simons-Morton, & Crump, 1996), school engagement (Manlove, 1998; Ryan & Patrick, 2001) and student engagement (Doğan, 2014; Mazer, 2013; Özdemir, 2018). The concept

of school attachment was first introduced to literature by Hirschi (1969). School attachment is a concept that involves students' behavior and thoughts based on their experiences and feelings related to school (Fredricks, Blumenfeld, & Paris, 2004), which determines the students' participation in activities in schools (Audas & Willms, 2001), and it is associated with academic outcomes such as success and school completion (Dotterer & Lowe, 2011, p. 1651). Students' considering themselves as a member of the school they attend to, their relationships with other students and teachers as well as the support level that is provided by teachers are important factors for the development of school attachment (Demir, 2017). School attachment has been proven by researches to be an important variable in tolerating undesirable behaviors in schools (Can, 2008, p. 2-10, Hirschi 2009, p. 10;). In the light of these data, it can be said that students with high level of attachment to school will have high levels of compliance with school and classroom rules. Similarly, researches with high academic success of students with high levels of school attachment (Cemalcilar, 2010; Günüç; 2014; Mengi, 2011, p. 2; Simon-Morton, & Chen, 2009; Skinner, Wellborn, & Connell, 1990; Wang & Eccles, 2012) increase the importance of this concept. In addition, the concept of school attachment is positively related to variables such as school attendance (Connell, Spencer, & Abel, 1994) that is important in the realization of the manifest and latent functions of educational systems, and the students' view of themselves as a member of the school (Libbey, 2004; Ryan & Patrick, 2001). Similarly, school attachment is negatively and significantly related to dropping out, which is one of the major problems of education systems (Hirschfield & Gasper, 2011; Klem & Connell, 2004; McNeely & Falci, 2004). It is emphasized that there is a positive relationship between school attachment and academic success (Demir, 2017).

It is considered that this research will contribute to the literature in various ways. Firstly; one's choice of a profession is one of the important variables affecting their working conditions, choice of spouse and life style. In this context, high school years are more important for students to make appropriate professional choices compared to other periods of their lives. It is only possible for students to study in the programs/universities they want only if they are academically successful. Therefore, it is considered crucial to determine the factors that directly and indirectly affect the academic success of students. Secondly; researchers/ educators can benefit from the results of this research in intervention programs aimed at improving students' academic success. Finally, considering that social media and internet is used intensively among adolescents, it is believed that investigating the effects of the intensive usage on academic success within the framework of structural model will contribute to the literature as it is one of the first studies in the field. From these explanations, the structural model explaining academic success is shown in Figure 1 and the hypotheses (H) of the model are provided below:



**Figure 1:** The Model That Explains Academic Success

H<sub>1</sub>: The number of social media accounts and the duration of internet usage positively and directly affect internet addiction.

H<sub>2</sub>: Internet addiction negatively and directly affects academic motivation.

H<sub>3</sub>: Academic motivation positively and directly affects school attachment.

H<sub>4</sub>: School attachment positively and directly affects academic success.

H<sub>5</sub>: The number of social media accounts and duration of internet usage negatively and indirectly affect academic success.

## Method

### Research Model

This research is designed in relational model of research. The relationships between secondary school students' social media accounts, average duration of internet usage, internet addiction levels, academic motivation levels, school attachment levels and academic success levels are examined. For this purpose, in order to explain the predictive relationships between variables; Structural Equation Modeling (SEM), which is frequently preferred in relational research, is used as it allows simultaneous examination of the relationships between variables (Fraenkel, Wallen, & Hyun, 2012).

### Study Group

The study group which was chosen with convenience sampling method by taking into account ease of accessibility, affordability and availability consists of 235 students, 93 (45.4%) female and 112 (54.60%) male who continue their education in a high school in Eastern Turkey. The ages of the

students who participated in the research ranged between 14 and 17 ( $x = 15.52$ ,  $Ss = .86$ ). Other descriptive information about the participants of the research is available in Table 1.

**Table 1.** Socio-demographic information about the students participating in the research

Gender	Female	Male		
	93 (%45.4)	112 (%54.6)		
Age	14	15	16	17
	16	100	55	34
Class Level	9	10	11	
	120	46	39	
Owning a Smart Phone	Yes	No		
	170	35		
Number of Social Media Accounts	1	2	3	4 and 4+
	70	61	66	38
Frequency of Social Media usage	Everyday	Several times a week	Several times a month	
	128	49	28	
Frequency of Internet Use	Everyday	Several times a week	Several times a month	
	151	43	11	
Total	235			

### Data Collection Tools

Three scales and personal information form were used in order to collect the necessary data. Scales used are; Young Internet Addiction Test-Short Form (YIAT-SF), Academic Motivation Scale (AMS) and School Attachment Scale (SAS).

**Personal Information Form:** In this research, data on gender, age, class, number of social media accounts, smartphone ownership status, weekly average internet usage duration, social media and internet usage frequency and academic success were collected with personal information form. The academic success of the students was based on the end-of- term final success grades in their report cards.

**Young Internet Addiction Test- Short Form (YIAT-SF):** Young Internet Addiction Test-Short Form (YIAT-SF) is a scale developed by Pawlikowski, Altstötter-Gleich and Brand by converting Internet Addiction Test (IAT), which was developed by Young to measure the level of internet addiction, to a short form as a result of validity and reliability studies. The scale was adapted to Turkish by Kutlu, Savcı, Demir and Aysan (2016) and consists of 12 items. YIAT-SF is a 5-point Likert-type evaluation tool. The scale is one-dimensional, and scores vary between 12 and 60. Higher scores indicate high levels of internet addiction. As a result of exploratory factor analysis conducted in adolescents within the validity of the scale, it was found that the items of the scale were collected under a single factor with an eigenvalue greater than 1. The eigenvalue of this single-factor structure is 5.7 and explains 48.9% of the total variance. As a result of Confirmatory Factor Analysis (CFA) performed in adolescents as the second procedure in terms of validity, it was seen that the fit index values of the one-dimensional model were  $\chi^2 = 141.934$ ,  $df = 51$ ,  $RMSEA = .080$ ,  $GFI = .90$ ,  $CFI = .90$  and  $IFI = .90$ . Cronbach's alpha coefficient in adolescents was calculated as .86. These results prove that the scale is a valid and reliable measurement tool.

**Academic Motivation Scale (AMS):** The Academic Motivation Scale (AMS) consists of 20 items and three factors developed by Bozanoğlu (2004) to determine the individual differences in students' academic motivation levels. It has a 5-point Likert rating scale. High scores from the scale indicate that there is a high level of academic motivation. As a result of the exploratory factor analysis conducted within the scope of the validity of the scale, it was found that it consisted of 3-factor structure and explained 42.2% of the total variance. Test-retest reliability was examined within the scope of reliability and it was seen correlation between the two measurements performed at 4-week intervals was .87. As a result, validity and reliability studies show that AMS is a valid and reliable measurement tool.

**School Attachment Scale (SAS):** The School Attachment Scale (SAS) for Children and Adolescents was developed by Hill (2006) to evaluate the level of attachment of children and adolescents to school. It consists of 13 items and three factors. The Turkish adaptation was made by Savi (2011). There are 4 items for attachment to school and friends and 5 items for attachment to teacher. In terms of validity, first Exploratory Factor Analysis (EFA) was carried out for adolescents and the scale was found to have a three-factor structure explaining 58.69% of the total variance. Within the scope of reliability examination, Cronbach's alpha reliability coefficients were first examined and calculated as .84 for the whole scale. In order to examine the consistency of the scale in terms of time, test-retest was applied to the participants at an interval of 20 days and it was found that test-retest coefficient was .85 for the whole scale. Consequently, validity and reliability studies show that SAS is a valid and reliable measurement tool.

### **Procedure**

First of all, research permissions were obtained from the Ethics Committee and the Provincial Directorate of National Education and the school administrators were informed about the research. The researchers conducted face-to-face interviews with the students and applied measurement tools to 323 students in an average of 40 minutes. Afterwards, the data were transferred to digital media and 13 students whose opinions were filled in incomplete and incorrectly were removed from the data set. The distribution properties of the data set were examined, the extreme values were determined by the skewness and kurtosis coefficients and 12 data deviating from the normal distribution were excluded from the analysis. Mahalonobis distances were examined in order to examine the versatile extremes and three data above the critical value of 20.52 (Pallant, 2016) were excluded if the number of independent variables was five. The Kolmogorov-Smirnov normality test was used to evaluate the normal distribution assumption on the remaining data, and it was found that the data exhibited normal distribution. VIF and tolerance values were within acceptable limits.

In the analysis of the data, the relationship between the number of social media accounts, average duration of internet usage, internet addiction, academic motivation, school attachment and academic success were analyzed by Pearson Product-Moment Correlation, the direct and indirect effects of number of social media accounts, average duration of internet usage, internet addiction,



academic motivation and school attachment on academic success were investigated by path analysis. Internet addiction, academic motivation and school attachment variables were implicit variables in the model. Internet addiction and school attachment consist of one factor and academic motivation consists of three sub-factors. The values of  $\chi^2$ , df,  $\chi^2$  /df, GFI, CFI, NFI, TLI, SRMR and RMSEA fit indexes were taken into consideration in the evaluation of the model fit.

## Findings

### Correlation Values

Correlation results for the number of social media accounts, duration of internet usage, internet addiction level, academic motivation level, school attachment level and academic success variables are given in Table 2.

**Table 2.** Relationships between variables

	1.AMS	2.SM	3.IM	4.IA	5.AM	6.SAS
1.AMS	1.	-.11	-.04	-.23**	.16*	.31**
2.SM		1.	.23**	.30**	-.20**	-.13
3.IM			1.	.26**	-.22**	-.10
4.IA				1.	-.29**	-.18*
5.AM					1.	.32**
6.SAS						1.

AMS: Academic Motivation; SM: Number of Social Media Accounts; IM: Duration of Internet Usage; IA: Internet Addiction; AS: Academic Success; SAS: School Attachment.

When Table 2 is examined, it is found that there is a significant negative correlation between academic success and internet addiction ( $r=-.23$ ,  $p<.001$ ); and a significant positive correlation between academic motivation ( $r=.16$ ,  $p<.05$ ) and school attachment ( $r=-.31$ ,  $p<.001$ ). There is a significant positive correlation between duration of internet usage and internet addiction ( $r=.26$ ,  $p<.001$ ); a significant negative correlation between the former and academic motivation ( $r=-.22$ ,  $p<.001$ ). There is a significant negative correlation between internet addiction and academic motivation ( $r=-.29$ ,  $p<.001$ ) with academic success ( $r=-.18$ ,  $p<.05$ ). Finally, there is a significant positive correlation between academic motivation and school attachment ( $r=.32$ ,  $p<.001$ ). In general terms, the correlations between the variables vary between  $-.29$  and  $.32$ . These values indicate that there is no multicollinearity.

## Results

### Results related to the measurement model

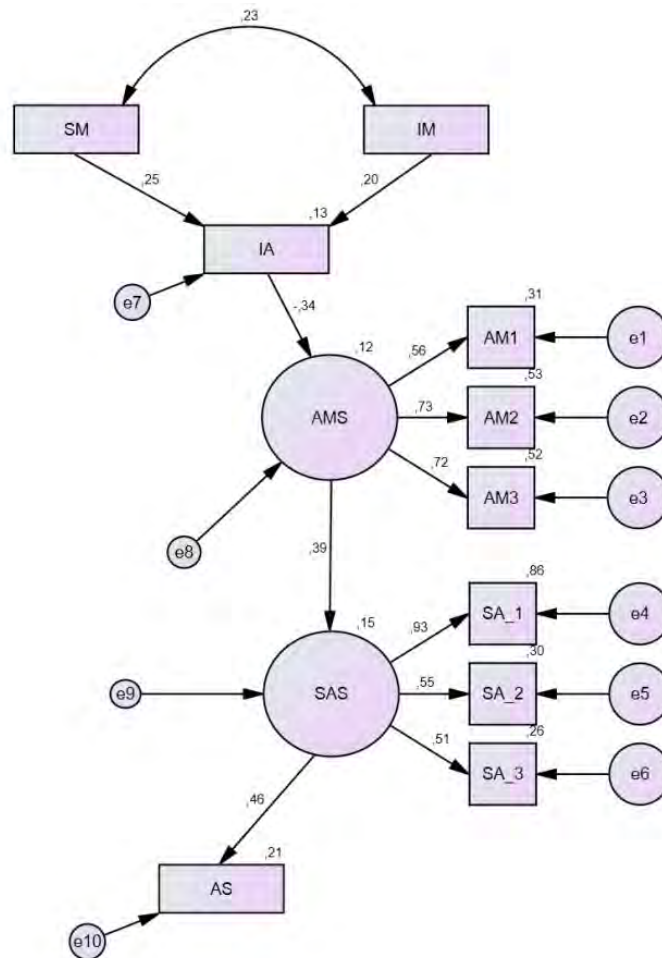
Before testing the model explaining academic success, the measurement models related to the measurement tools included in the proposed hypothetical model were tested separately. In this context, YIAT-SF was tested with first level and AMS and SAS with second level DFA. When the results of the analysis are examined it is calculated as; YIAT-SF [ $\chi^2$  /df = 1.686, RMSEA = 0.058, SRMR = 0.057; GFI = 0.93, CFI = 0.92, IFI = 0.92, TLI (NNFI) = 0.90], AMS [ $\chi^2$  /df = 2.257, RMSEA = 0.078, SRMR = 0.084; GFI = 0.85, CFI = 0.70, IFI = 0.70, TLI (NNFI) = 0.65] and SAS [ $\chi^2$  /df = 2.901, RMSEA = 0.066, SRMR = 0.066; GFI = 0.88, CFI = 0.93, IFI = 0.93, TLI (NNFI) = 0.90]. It

can be said that AMS has poor fit whereas other measurement tools have acceptable fit index values (Kline, 2011; Sümer, 2000; Tabachnick, & Fidell, 2015). These findings indicate that the scales are sufficient to be included in the structural model.

**Results related to the proposed hypothetical model**

The proposed hypothetical model for explaining academic success was tested with the Maximum Likelihood method considering that the model meets the prerequisite criteria such as multilinearity, multivariate normality, outliers and structural sample size. In this research, Covariance matrix which is one of the Maximum Likelihood methods was used.

According to the results of the analysis, t values for the proposed hypothetical model range from -3.899 and 6.413. All paths for t value are statistically significant at 0.01 level. When the fit index values of the proposed hypothetical model are examined;  $\chi^2 = 75.510$ ,  $df = 33$ ,  $\chi^2 / df = 2.288$ , RMSEA = 0.079, SRMR = 0.078, GFI = 0.93, AGFI = 0.89, CFI = 0.88; IFI = 0.80, TLI (NNFI) = 0.85. These findings suggest that the hypothetical model proposed to explain academic success in adolescents has generally acceptable fit index values (Kline, 2011; Sümer, 2000; Tabachnick & Fidell, 2015). The results of the path analysis for the proposed model are presented in Figure 2.



**Figure 2.** Path analysis of the model explaining academic success

SM: Number of Social Media Accounts; IM: Duration of Internet Usage; IA: Internet Addiction; AMS: Academic Motivation; SAS: School Attachment; AS: Academic Success.

Kline (2011) stated that an effect size of around .10 is small, an effect size of around .30 is medium and an effect size of around .50 is a large effect size. Considering the direct effects of variables explaining academic success the standardized regression coefficient of 0.25 between the use of social media and internet addiction shows that the number of social media accounts positively affects internet addiction and the effect size between the two variables is moderate. Similarly, increase in the duration of internet usage increases the level of internet addiction. The standardized regression coefficient of 0.20 between these two variables indicates a moderate effect size. Internet addiction negatively affects academic motivation. The standardized regression coefficient of -0.39 between internet addiction and academic motivation indicates a moderate negative effect size. Finally, school attachment positively affects academic success. The standardized regression coefficient of 0.46 between school attachment and academic success indicates a high level of effect size. In this model explaining academic success; the number of social media accounts and the average duration of internet usage together revealed 0.13 variance of internet addiction, internet addiction revealed 0.12 variance of academic motivation; academic motivation revealed 0.15 variance of school attachment; school attachment revealed 0.21 variance of academic success. The analysis results of the proposed hypothetical model are presented in Table 3.

**Table 3.** Proposed hypothetical model's standardized regression values, t values and explained variance.

		$\lambda$	t	R <sup>2</sup>
Internet Addiction	← Number of Social Media Accounts	.254	3.775	.126
Internet Addiction	← Average Internet Usage Time	.198	2.946	.118
Academic Motivation	← Internet Addiction	-.344	-3.899	.148
School Attachment	← Academic Motivation	.385	4.019	.208
Academic Mot._1	← Academic Motivation	.556		.261
Academic Mot._2	← Academic Motivation	.728	6.198	.302
Academic Mot._3	← Academic Motivation	.719	6.196	.859
School Att._1	← School Attachment	.927		.517
School Att._2	← School Attachment	.549	6.413	.530
School Att._3	← School Attachment	.254	6.088	.309
Academic Success	← School Attachment	.198	5.579	.126

When Table 3 is examined, it is seen that all the paths in the model explaining academic success are statistically significant. These results show that the hypotheses of the model explaining academic success are confirmed.

### Discussion, Conclusion and Suggestions

In this study, indirect and direct effects of social media account numbers, duration of internet usage, internet addiction, academic motivation and school attachment on academic success are investigated by structural equation modeling.

It was determined that the number of social media accounts and duration of internet usage had a positive effect on internet addiction. In the literature, it is emphasized that the high number of social media accounts and the increase in duration of internet usage are risk factors for the development of internet addiction (Balçı & Gülnar, 2009; Savcı, Ercengiz, & Aysan, 2018). The contents of social media applications vary. There are applications in which the main purpose is to produce/share video content applications, as well as social media applications where only photo sharing or virtual social interaction groups exist (Miller, 2017; Khan, & Bhatti, 2012). Adolescents with a high number of social media accounts are likely to spend a significant amount of their time on the internet, considering that they need to spend time separately for the activities in each social media group. One of the criteria of internet addiction is the continuous increase in usage duration (Kutlu et al., 2016). In this context, it can be assumed that adolescents who have both higher duration of internet usage and social media accounts are among the risky groups in terms of addiction.

It is emphasized that internet addiction causes tolerance development in individuals as in other addictions. In other words, it can be said that the desire for internet use increases in individuals who develop addiction (Savcı et al, 2018). Researches emphasize that individuals with high internet addiction have low academic motivation and are more reluctant to perform academic tasks compared to other individuals (Demir, 2017; Demir & Kutlu, 2018; Muslu & Bolışık, 2009). This can be explained by the fact that the internet is attractive to adolescents. The Internet offers a number of opportunities for adolescents such as listening to music, watching movies, playing online games, communicating with distant friends, developing new virtual social relationships. These opportunities offered by the internet to adolescents may be more fun than studying. Individuals who develop Internet addiction and continuously spend time in such activities may develop reluctance for academic tasks (Demir, 2017; Mohammadi, & Torabi). Carrying out school assignments and responsibilities, learning new topics may no longer be desirable for the adolescent. Therefore, increasing internet addiction can be considered as a factor that reduces academic motivation.

According to another result of the study, academic motivation levels positively affect school attachment in adolescents. This result is similar to the results of the studies in the literature (Demir & Kutlu, 2018; Guay, Denault, & Renauld, 2017). In this context, it is stated that individuals with low academic motivation will have less desire to fulfill the tasks and responsibilities related to the school. (Eisele, Zand, & Thomson, 2009; Gillen-O'Neel, & Fuligni, 2013). In other words, low motivation will decrease the individual's willingness to school. Therefore, low motivation will negatively affect individuals' attachment to school.

It was determined that school attachment in adolescents had a positive effect on academic success. In other words, the high level of school attachment in adolescents positively affects their academic success. This result shows similarity to the research results in literature. (Engh, Jernbro, Lin, Bornehag, & Eriksson, 2018; Spilt, Hughes, Wu, & Kwok, 2012). School attachment is a broad concept involving attachment to friends, teachers and the school itself (Demir, & Kutlu, 2018; Hill, &

Werner, 2006). It is emphasized that individuals with high level of attachment to school have positive attitudes towards school, their relations with teachers are at the desired level, and they are more willing to fulfill their academic tasks and responsibilities (Demir, 2017). It can be said that individuals with high levels of attachment to school are more active in situations related to learning and pupilage and therefore are more successful.

Finally, it was determined that the number of social media accounts and duration of internet usage had an indirect and negative effect on academic success in adolescents. This result shows that the high number of social media accounts and the increase in the duration of internet usage in adolescents indirectly and negatively affect their academic success. Researches show that internet addiction is negatively related to academic success. (Cengizhan, 2005; Demir & Kutlu, 2017; Stavropoulos, Alexandraki, & Motti-Stefanidi, 2013).

As in every research, there are some limitations in this one as well. Some of these limitations are that the study was conducted with self-report scales and with adolescents only, and that the study was conducted without qualitative data. The use of mixed methods and subsequent studies in different sample groups may contribute to better evaluation and accurate generalizations.

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