Prediction of Academic Achievement and Happiness in Middle School Students: The Role of Social-Emotional Learning Skills

Furkan Kasikci
Ataturk University, furkan.kasikci@atauni.edu.tr

Metmet Bugra Ozhan
Ataturk University, mehmet.ozhan@atauni.edu.tr

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Furkan Kaşıkcı

Ataturk University

Mehmet Buğra Özhan

Ataturk University

Abstract

This study was conducted to test whether social-emotional learning skills are a significant predictor of academic achievement and happiness in middle school students. A total of three different data collection tools were used in the study: A Personal Information Form, The Social-Emotional Learning Skills Scale, and The Adolescent Happiness Scale. The study was carried out with 337 middle school students from six different middle schools in Erzurum province. Of these students, 203 (60.2%) were female, and 134 (39.8%) were male. The ages of these students varied between 10 and 14, and the mean age was 12.07 (Sd = 0.93). Descriptive statistics, correlation analysis, and hierarchical regression analysis were employed in the analysis of the data. The findings obtained as a result of the study indicated that there were positive and significant correlations between social-emotional learning skills and academic achievement and happiness. In addition, social-emotional learning skills were a significant predictor of academic achievement and happiness in middle school students. Accordingly, social-emotional learning skills explained 18% of the total variance in academic achievement and 44% of the variance in happiness in middle school students. When all these results are evaluated together, it can be said that promoting the social-emotional learning skills of middle school students will increase academic achievement and happiness.

Keywords: Academic achievement, happiness, social emotional learning skills

Introduction

Education, an institution with an important role in increasing the existing cultural accumulation of societies and transferring this accumulation to future generations, has been going through a period of serious change with the effect of digitalization and globalization. This unprecedented change is also reflected in the school, which is the primary social environment where educational activities are carried out, and in the structure of the school. In this context, today, pedagogical practices are mostly affected by developmental education models that underlie student personality services and support the development process of the student in all aspects, rather than academic achievement-oriented education trends based on the traditional school structure (Yeşilyaprak, 2013). Therefore, it can be said that the main objective of today's contemporary education system and pedagogical practices is to support not only students' academic achievement but also their well-being and happiness. Reflecting

on this point of view, it is considered that eliminating the factors that negatively affect the academic achievement and well-being of students and at the same time supporting success and happiness is a very important form of intervention consistent with the goals of education systems.

The concept of happiness, which is the main focus of positive psychology, is the evaluation of one's life both cognitively and emotionally, and generally refers to the positive aspect of these evaluations (Lucas & Diener, 2009). In the model put forward by Diener (2000) to describe the positive experiences of individuals, the happiness states of individuals, conceptualized based on the concept of *"subjective well-being"*, are defined as a 3-component structure including life satisfaction, positive emotion and negative emotion (Diener, 2000). At this point, subjective well-being reflecting the happiness status of individuals is high when life satisfaction is high, positive affect is high and negative affect is low. Similar to this approach, according to Seligman et al. (2005), happiness consists of a three-component construct: feeling positive emotions and pleasure more (pleasant life), participating in life activities more (good life) and reaching a sense of purpose or meaning (meaningful life). In addition, Seligman (2011) states that students' well-being has five components: positive emotions, engagement, positive relationships, meaning, and achievement. This model is expressed in the literature with the abbreviation PERMA, which is a combination of the first letters of its components. In recent years, Kern et al. (2021) added the health dimension to the PERMA model and evaluated well-being as a six-dimensional construct (PERMAH). According to the related literature, happiness has positive effects on physical health (Veenhoven, 2008) and mental health (Lyubomirsky et al., 2005), and it negatively correlates to many negative variables, such as depression (Kahriz et al., 2020), anxiety (Crowley et al., 2020) and stress (Brailovskaia et al., 2019) which disrupt the psychological harmony of the individual.

Academic achievement, which has attracted a lot of attention since the first days of the emergence of educational psychology, refers to a measure of the student's progress in the general school environment or in a specific academic field (for example, mathematics, chemistry, etc.) (Fineburg, 2009). Academic achievement can be considered as one of the basic outputs of the educational process. In this respect, academic achievement can be expressed as one of the most important criteria for the success of the education and educational activities offered at school (Atik & Özer, 2020). Considering the role and importance of the school in the life of the individual, it can be said that students will improve themselves through learning at school, acquire a profession, and sustain their life with this profession. From this point of view, promoting students' academic achievement at school and therefore ensuring they attain educational, learning, and developmental goals are important issues.

According to the positive psychology approach, which is one of the highly important theoretical trends in the psychology literature, it is very important to highlight the factors that play a protective role against negativities by drawing attention to the strengths of individuals. In this context, one of the main goals of this approach is to determine to what extent the strengths existing in individuals contribute to success and happiness (Seligman et al., 2005). According to the current literature, an important factor that contributes significantly to students' academic achievement and happiness is their social-emotional learning skills. Indeed, social-emotional learning, which is supported by cognitive skills, such as creative thinking, openness to development, self-management, a tendency toward teamwork, time management and communication, which facilitate solving complex problems and making

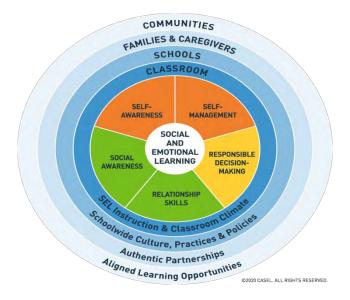responsible decisions, is increasingly gaining importance.

Social-emotional learning skills emerge as a result of the interaction of many factors and seriously affect the lives of individuals and they are basically defined as the awareness of one's own feelings and those around them (Corcoran et al., 2018). The Collaborative for Academic, Social, and Emotional Learning (CASEL), which is an important organization in terms of social-emotional learning studies that started especially in the USA, defines social-emotional learning as processes of acquiring and implementing knowledge and skills necessary for children and adults to understand their own feelings, set realistic goals and reach them, feel empathy for others, and make responsible decisions by establishing positive relationships (CASEL, 2017). Social-emotional learning is the combination of five basic competencies according to the model that the CASEL laid out. These five basic skill areas include *"self-awareness"*, *"self-management"*, *"social awareness"*, *"relationship skills"* and *"responsible decision-making"*. Self-awareness comprises accurate self-perception, describing one's feelings, healthy awareness of one's strengths, and individual limitations. Labeling one's feelings, having a realistic self-perception, knowing one's strengths and having self-confidence and self-efficacy can be given as examples of behavioral indicators of self-awareness competency area. Self-management, the second essential component, is the competency of the individual to successfully regulate and balance their feelings, thoughts, and behaviors in different situations. The examples of the behavioral indicators of the self-management competency area include qualities such as controlling one's impulses, managing stress effectively, and having self-discipline and self-motivation. Social awareness, the third component, can be defined as the competency of individuals to be aware of the perspectives of others and to establish empathy with others. The examples of the behavioral indicators of social awareness comprise qualities such as understanding different perspectives, establishing empathy with others, and respecting differences and others. Relationship skills, which is the fourth component, can be conceptualized as an individual's ability to establish and maintain a healthy and constructive relationship with people from different cultures and backgrounds. The examples of the behavioral indicators of relationship skills include qualities such as communication, social involvement, starting relationships, and tendency toward teamwork. Responsible decision-making competency, which is the fifth and last component that constitutes the structure of social-emotional learning skills, involves the competency of the individual to make a healthy choice in social relationships and behaviors by taking into account ethical rules, social norms, and safety concerns. The examples of the behavioral indicators of responsible decision-making involve recognition of one's problems, making an analysis of the situation, problem-solving, evaluation, receiving feedback, and having monitoring skills. The social emotional learning model proposed by the CASEL (2020) is given in Figure 1.

In addition to these explanations, which the CASEL (2017) put forward, the motivation of the World Health Organization for studying social-emotional learning skills is the well-being of the individual (WHO, 2020). The World Health Organization (WHO) advocates that social and emotional learning skills should become widespread as a life skill and that international public health will improve in this way. The WHO framework of social and emotional learning skills consists of three main components: communication skills, decision-making and critical thinking skills, and coping skills (EXPLORESEL, 2020). In addition, the WHO provides evidence that making social-emotional learning skills a life skill has a positive effect on individuals' academic performance. At this point, addressing social-emotional learning skills in the context of both happiness and academic achievement in this study can make important data-based contributions to the propositions of the WHO on social-emotional

learning skills.

Figure 1

The CASEL-Based Social Emotional Learning Model

(From "https://casel.org/what-is-sel/")

Apart from these theoretical explanations and suggestions about the structure and function of social-emotional learning skills, many studies conducted in different countries have concluded that social-emotional learning skills are an important instrument in promoting student achievement and happiness. In this context, the examples of America and Singapore, which frequently use school-based social-emotional learning skills programs, are important. The main goal of the social-emotional learning skills-based model implemented in Singapore, called Character and Citizenship Education (CCE), is to prepare students for life and work (MOE, 2020). In addition, it is argued that social-emotional learning skills can be taught just like academic skills in the programs implemented in the USA, and this can be achieved by intervening in the ecosystem surrounding the student, such as school, family, and peers (Indiana, 2018). A review of the related literature shows that there are studies that indicate these programs, when implemented to improve social-emotional learning skills, increase students' well-being and academic achievement. In addition to the effectiveness of social emotional learning programs, McClure (2016) argues that there is an important need for culturally affirming SEL programs. This study is important in terms of increasing the knowledge about SEL in Turkish culture.

In addition to all these, studies on determining the relationship between social-emotional learning skills and academic achievement have shown that social-emotional learning skills-based programs improve students' skills, such as recognizing their own feelings, establishing an empathetic relationship with others, maintaining positive relationships, responsible decision-making, and critical thinking (Durlak et al., 2011; Payton et al., 2008; Zins & Elias, 2006). These skills help students to be more active in the classroom environment and participate more in educational activities, which, in turn, increase academic achievement (Eisenberg et al., 2010; Rhoades et al., 2011). Moreover, considering the proposition that the

main goal of social-emotional learning skills-based programs is to increase the quality of life and well-being of individuals (Domitrovich et al., 2017; Kimber et al., 2008), we can say that social-emotional learning skills can increase students' positive affect and therefore their happiness. On the other hand, social-emotional learning skills-based programs are effective in preventing situations that may negatively affect students' educational life. In this context, studies conducted on the topic suggest that the programs implemented to improve students' social-emotional learning skills are an important protective factor in preventing undesirable situations, such as substance abuse (Durlak, et al., 2011; Wilson & Lipsey, 2007), anxiety and depression (Durlak, et al., 2011; Neil & Christensen, 2007), anti-social behaviors (Durlak, et al., 2011), and experiencing problems with the teacher and peer rejection (Masten & Coatsworth, 1998). In summary, when these theoretical explanations and propositions about social-emotional learning skills, application examples, and research results showing the relationship between social-emotional learning skills and student well-being, happiness and achievement are evaluated as a whole, we can say that social-emotional learning skills are an important variable associated with students' academic achievement and happiness. Furthermore, programs and interventions based on social-emotional learning skills can support both academic achievement and the happiness of students.

The Context, Importance, and Hypotheses of the Research

It is thought that both pre-adolescence and transition to a higher level of education are important sources of stress for students at the middle school level. In this process, students sometimes get results that can be described as *"failure"* in the face of the roles and responsibilities they have to fulfill and this can negatively affect their mental state and happiness. The PISA – 2015 revealed current and remarkable problems related to the mental states and happiness of adolescents at different schools and levels in Turkey. According to the evaluation of the PISA - 2015 results in this perspective, it is quite remarkable that adolescent students in Turkey ranked the last place among 72 participating countries in terms of life satisfaction and that school-related anxieties were above the average of OECD countries (OECD, 2016). In addition, although the life satisfaction of the students participating in the research was 67% on average for OECD countries in the PISA - 2018 report, only 44% of the students in Turkey reported that they were satisfied with their lives (OECD, 2019). When we evaluate these findings by considering that the majority of the students in the PISA sample are high school students, we can say that students in the adolescence period have important current and data-based problems related to their mood, happiness, and well-being. From this point of view, in accordance with the preventive and improving nature of guidance services, focusing on middle school students' social-emotional learning skills, which make up an important variable that is related to their happiness and also improves and supports their happiness, is important.

Current data draw attention to important problems related to the well-being and happiness of students, as well as problems related to academic achievement. When the results of the central test, which is an important indicator that reflects the academic skills of middle school students, are examined, it is remarkable that the average count of correct answers on the 90-item LGS test, the transition to high school test, which 1,472,088 students took in 2020 in Turkey, is 40.07 (MEB, 2020), and this result is important in terms of revealing the current academic problems faced by middle school students. At this point, it is very important to focus on social-emotional learning skills, whose improving, preventive, and supportive functions are emphasized both theoretically and empirically in the literature in terms of academic achievement, similar to happiness.

An important point to emphasize while explaining the context of the research is as follows: when studies on social-emotional learning skills are examined, it can be seen that there are different conceptualizations regarding these skills. These various conceptualizations bring different measurement tools. At this point in this research, the propositions related to the structure put forward by the CASEL were used extensively to form a theoretical argument for social-emotional learning skills, but due to the nature of the measurement tool employed in the research, social-emotional learning skills had to be measured differently from the CASEL approach. However, based on the measurement tool used in this study, it was considered that the conceptualization of the structure of social-emotional learning skills was consistent with the structure proposed by the CASEL. In this study, the first dimension based on the conceptualization of social-emotional learning skills was expressed as problem-solving skills in the relevant measurement tool. In the conceptualization put forward by the CASEL, self-awareness, self-management, and responsible decision-making skills were defined as the components of social-emotional learning skills related to problem-solving skills. In this respect, self-awareness, self-management, and responsible decision-making skills were considered to be closely related to the individual's problem-solving skills. In this study, it was considered that communication skills, which are another component of social-emotional learning skills, were consistent with the explanations made for the skills conceptualized as relational skills and social awareness in the model put forward by the CASEL. In addition, in this study, the skills that increase the self-worth that constitute the multidimensional structure of social-emotional learning skills and the skills expressed as coping with stress were consistent with other skill sets that make up the social-emotional learning skills, especially self-awareness and self-management, in the model put forward by the CASEL. In summary, although social-emotional learning skills were conceptualized and measured as a different structure from the structure proposed by the CASEL due to the nature of the measurement tool used in this study, this structure was considered to be quite consistent with the social-emotional learning skills structure in the model proposed by the CASEL.

As a result, it is important to examine protective factors such as social-emotional learning skills against the risks that negatively affect students' happiness and academic achievement. In this context, we think this study, which was conducted to explain students' happiness and academic achievement based on social-emotional learning skills, will make important data-based contributions to psychological counselors, working in Guidance and Psychological Counseling (GPC) services in schools, teachers, and school administrators in terms of planning developmental and preventive studies. From this point of view, this study was conducted to examine the relationship between social-emotional learning skills and academic achievement and happiness, and the following hypotheses were tested.
1.   There are positive and significant correlations between social-emotional learning skills and academic achievement and happiness in middle school students.
2.   Social-emotional learning skills are a positive and significant predictor of academic achievement in middle school students.
3.   Social-emotional learning skills are a positive and significant predictor of happiness in middle school students.

Method

Research Model

This study, which was conducted to reveal whether social-emotional learning skills are a significant predictor of academic achievement and happiness in middle school students, used

the predictive correlational research design. Predictive correlational studies try to explain the variance in the dependent (predicted) variable based on one or more independent variables (Büyüköztürk et al., 2011). In accordance with the nature of predictive correlational studies, we determined the dependent variables of this study as academic achievement and happiness and the independent variable as social-emotional learning skills.

Study Group

The study group included a total of 337 students from six different middle schools in Erzurum province. Of these students, 203 (60.2%) were female, and 134 (39.8%) were male. The ages of these students varied between 10 and 14, and the mean age of the group was 12.07 years (Sd = 0.93). Moreover, 110 students (32.64%) in the study group were in the fifth grade, 103 (30.56%) were in the sixth grade, 108 (32.05%) were in the seventh grade, and 16 (4.75%) were in the eighth grade. We used the convenience sampling method to determine the study group since the COVID-19 pandemic made data collection processes particularly difficult. Convenience sampling is usually used under conditions that make it impossible to reach the entire population, and the researcher can easily reach the sample by using this method (Cohen et al., 2011). This situation can be a limitation for the study group of the research.

Data Collection Tools

We used three different tools to collect the research data. Detailed information about each data collection tool is presented below.

The Personal Information Form
We created this form within the scope of this research to obtain information about the academic achievement and demographic characteristics of the middle school students in the study. The form consists of a total of five questions, including four questions about age, gender, grade, and student's school, and one question for measuring academic achievement. In this study, we measured the academic achievement of the students based on the weighted end-of-term grade point averages for the fall semester of the 2020-2021 academic year. The weighted end-of-term grade point average is accepted to be valid and reliable in measuring academic achievement. In addition, considering the possible effects of COVID-19, the fact that the academic success of the students was limited to the 2020-2021 academic term can be considered as a limitation of this study.

The Social-Emotional Learning Skills Scale (SELSS)
The SELSS, which we used to obtain information about the social-emotional learning skills of middle school students in the study, was developed by Kabakçı and Korkut-Owen (2010) based on the social-emotional learning approach (Cohen, 1999; Elias, 2009). There is a total of 40 four-point Likert-type items on the scale. The scale has four sub-dimensions, conceptualized as "problem-solving skills", "self-esteem enhancing skills", "coping with stress skills", and "communication skills", which make up the multi-dimensional structure of social-emotional learning skills. It is possible to calculate a score for each of the four sub-dimensions and for the general social-emotional learning skills, which is a combination of these four sub-dimensions. The scores that can be obtained from the scale vary between 40 and 160, and an increase in the scores obtained from the scale means that the competency of individuals in social-emotional learning skills increases. During the development of the scale, the internal consistency reliability coefficient was found as $\alpha = .88$ for the overall scale. The

reliability of the scale was re-examined for the study group of this study. Based on the study group of this research, the internal consistency reliability coefficient (Cronbach's Alpha) of the scale was found as .89 for the overall scale.

The Adolescent Happiness Scale (AHS)

The AHS, which we used to obtain information about the happiness levels of middle school students participating in the research, was developed by Işık and Üzbe Atalay (2019). There are 15 five-point Likert-type items on the scale. Adolescent happiness is conceptualized as a one-dimensional structure with the scale, and as a result of the evaluation of the scale, a total happiness score that represents general happiness is obtained. The scores that can be obtained from the scale vary between 15 and 75, and an increase in the scores obtained from the scale means that the happiness levels of individuals increase. During the development of the scale, we examined the internal consistency reliability coefficient of the scale separately for the groups via the EFA and CFA and found this coefficient as .92 and .91 for the overall scale, respectively. We also examined the reliability of the scale for the study group of this research. Based on the study group, we found the internal consistency reliability coefficient (Cronbach's alpha) of the scale as .88 for the overall scale.

The Implementation of the Study

We first obtained the necessary legal permissions initiated to initiate the research process. We obtained the permission of the authors who developed the measurement tools used in the study and the approval of the Atatürk University Educational Sciences Ethics Committee. After we obtained the necessary legal permissions, we transformed the measurement tools to be used within the scope of the research into an online form and collected the research data in an online survey format.

To increase the motivation of the students participating in the research, we added a document containing information about the problem, purpose, and significance of the research and the necessary instructions to the first page of the online survey form. We also informed the students on the online form that the participation was completely voluntary. Thus, we administered the data collection tools used within the scope of the research to the students who volunteered to participate in the research. Students were given 14 days to fill out the data collection tools used in the research, and when the logs were examined, it was observed that the students completed filling out the data collection tools in an average of 20 minutes. In this context, the data collection process of the research was completed by applying the set of scales used to collect data within the scope of the research to a total of 411 middle school students from six different schools.

Data Analysis

After the data collection process was completed and the data were transferred into a digital file, first, we examined the data set for missing and/or incorrect data. In the analysis and evaluation of missing data, we determined the acceptable rate of incomplete items as 5% (Tabachnick & Fidell, 2012). At this point, we removed scale sets of 21 students with incomplete items more than 5% from the data set. Then, we examined the extreme values in the data set and the normality of the distribution. We analyzed the univariate outliers in the data set using histogram plots, box plots and calculated z scores using the IBM SPSS software package. At this stage, the scale sets of 53 students, which were determined to have extreme values, we excluded from the data set of the research. After these examinations, we

decided that the research data set was cleared of extreme values and had a normal distribution, which can be understood from the kurtosis and skewness coefficients given in Table 1. After we decided that the data showed a normal distribution, we did the analysis of the research data in line with the hypotheses on the final study group consisting of 337 subjects.

In the analysis of the data, first of all, we calculated descriptive statistics for all the variables included in the research, and then we examined the correlations between these variables with the Pearson product-moment correlation analysis. After we revealed the significant correlations between the variables, we used regression analysis to test whether social-emotional learning skills were a significant predictor of academic achievement and happiness in middle school students. At this stage, two separate regression models were established to check whether the total scores of social-emotional learning skills obtained from the SELSS represented the independent variable of the study, and academic achievement and happiness scores represented dependent variables. The established models were tested using hierarchical regression analysis. In the hierarchical regression models established at this point, gender and age were included in the model as control variables. The aforementioned analyses were conducted on the IBM SPSS 22 software package, and these analyses were based on the $p < .05$ significance level.

Ethics of the Study

All stages of this research were carried out in accordance with the 1964 Declaration of Helsinki. At this point, the study was evaluated by Atatürk University Educational Sciences Ethics Committee, and it was found ethically appropriate (Approval Date and Issue: 18.02.2021 - 02/16). After the study was approved by the ethics committee, we initiated the data collection phase.

Results

In this section, first, we conducted descriptive statistics regarding the research variables and presented the results of the correlation analysis that we carried out to reveal the correlations between these variables. Then we reported the findings related to the regression models established within the scope of the research respectively.

Correlations and Descriptive Statistics

To reveal the correlations between the research variables, we calculated the Pearson product-moment correlation coefficients and conducted descriptive statistics on these variables. The results of the correlation analysis and descriptive statistics regarding the research variables are presented in Table 1.

As seen in Table 1, there were moderate, positive, and significant correlations between the total social-emotional learning skills score (SEL-TOTAL), which plays a predictor variable role in the study, and the academic achievement and happiness scores, which are the predicted variables. In addition, significant relationships were found between the gender and age of the research participants and their social-emotional learning skills. According to the results obtained, there were significant positive correlations between the sub-dimensions of the predictor variable of the research and happiness and academic achievement, which are the

Table 1

Correlation values between variables and descriptive statistics

	1	2	3	4	5	6	7	8	9
(1) SEL-CS	---	.62**	.46**	.37**	.79**	.42**	.29**	-.26**	-.03
(2) SEL-PSS	---	---	.53**	.43**	.87**	.52**	.34**	-.07	-.14*
(3) SEL-CWS	---	---	---	.20**	.72**	.34**	.20**	-.15**	-.14*
(4) SEL-SEE	---	---	---	---	.65**	.67**	.24**	-.09	-.19**
(5) SEL-TOT	---	---	---	---	---	.64**	.35**	-.18**	-.17**
(6) Happiness	---	---	---	---	---	---	.32**	-.09	-.28**
(7) A. Ach.	---	---	---	---	---	---	---	-.20**	-.28**
(8) Gender	---	---	---	---	---	---	---	---	.15**
(9) Age	---	---	---	---	---	---	---	---	---
M	28.22	34.86	24.42	34.46	---	62.02	84.79	1.40	12.07
SD	4.75	6.14	5.35	5.12	16.29	9.14	8.32	.49	.94
Kurtosis	-.36	-.77	-.53	1.25	-.54	.53	-.07	.42	.09
Skewness	-.37	-.40	.03	-1.13	-.29	-.83	-.53	-1.83	-.93

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

SEL-CS: Social-emotional learning/communications skills; SEL-PSS: Social-emotional learning/problem-solving skills; SEL-CWS: Social-emotional learning/coping with stress skills; SEL-SEE: Social-emotional learning/self-esteem enhancing skills; SEL-TOT: Social-emotional learning/total score; A. Ach.: Academic achievement. Normally, the mean and standard deviation of the nominal variables are not reported, but the SPSS considers these variables as a value in the analysis, and without these values, the results of the regression analysis cannot be proved.

predicted variables. Finally, according to the analysis results in Table 1, it is remarkable that there was a moderate, positive, and significant correlation between happiness and academic achievement, the predicted variables of the study.

The evaluation of results of the correlation analysis revealing the correlations between the variables and the kurtosis and skewness values of the variables in the data set in Table 1 in line with the recommendations of George and Mallery (2010) indicated that the scores of the variables in the research data set showed a normal distribution.

Findings about the Prediction of Academic Achievement and Happiness

After we determined that there were significant correlations between the research variables and that the scores of the variables in the research data set had a normal distribution, we established two different hierarchical regression models in line with the research hypotheses to examine whether social-emotional learning skills were a significant predictor of academic achievement and happiness. The statistics of variance regarding academic achievement and happiness, the predicted variables, obtained as a result of the established regression models,

are presented in Table 2 and the results of the regression analysis are presented in Table 3.

Table 2

Statistics of variance about academic achievement and happiness

Predicted Variables	Variable	R	R^2	ΔR^2	TSH	Statistics of variance			p
						ΔF	Sd1	Sd2	
Academic Achievement	Model 1	.34	.11	.11	.10	22.09	2	334	.000
	Model 2	.43	.19	.18	.08	32.51	1	333	.000
Happiness	Model 1	.31	.09	.08	.09	18.37	2	334	.000
	Model 2	.67	.45	.44	.35	211.08	1	333	.000

Model 1 (Constant + Gender + Age); Model 2 (Constant + Gender + Age + SEL)

In this context, as seen in Table 2, in the first stage of the two-stage regression model created for the predicted variable of academic achievement, demographic variables of gender and age significantly explained approximately 11 percent of the variance regarding academic achievement (F (2,334) = 22.09, ΔR^2 = .11, p < .05). In addition, the social-emotional learning skills variable added to the regression equation in the second stage of the model created for the predicted variable of academic achievement significantly explained 18 percent of the variance in academic achievement when demographic variables of gender and age (F (1,333) = 32.51, ΔR^2 = .18, p < .05) are controlled.

In addition, Table 2 gives the results of the two-stage hierarchical regression model created for the predicted variable of happiness. In the first stage of the model, demographic variables of gender and age explained 8 percent of happiness significantly (F (2,334) = 18.37, ΔR^2 = .08, p < .05). Also, the social-emotional learning skills variable added to the regression equation in the second stage of the model created for the predicted variable of happiness significantly explained 44 percent of the variance regarding happiness when demographic variables of gender and age (F (1,333) = 211.08, ΔR^2 = .44, p < .05) are controlled.

When the regression coefficients in Table 3 are examined, it can be seen that gender and age are significant predictors of the change in academic achievement scores at the first stage in the two-stage hierarchical regression model created for the predicted variable of academic achievement. However, the regression coefficients in Table 3 reveal that the predictive effect of the social-emotional learning skills variable, added in the second stage to the regression equation established to explain academic success, on academic achievement is significant when gender and age variables are controlled. Based on the research findings, it can be said that social-emotional learning skills are a positive and significant predictor of academic achievement when gender and age are controlled.

In the two-stage hierarchical regression model created for the predicted variable of happiness, on the other hand, it can be seen that in the first stage, age is significant predictors of the change in happiness scores but gender is not significant predictors. In addition, the regression coefficients in Table 3 reveal that the predictive effect of the social-emotional learning skills variable, added in the second stage to the regression equation established to explain happiness, on happiness is significant when gender and age variables are controlled. Based on

the research findings, it can be said that social-emotional learning skills are a positive and significant predictor of happiness when gender and age are controlled.

Table 3

Results of the regression analysis about academic achievement and happiness, which are the predicted variables

Predicted variables	Predictor variable	Non-standardized coefficients		Standardized coefficients	t	p
		B	SHB	ß		
Academic Achievement (Model 1)	(Constant)	89.300	.806		110.785	.000
	Gender	-2.749	.884	-.162	-3.111	.002
	Age	-4.960	.934	-.276	-5.312	.000
Academic Achievement (Model 2)	(Constant)	70.399	3.403		20.687	.000
	Gender	-1.984	.855	-.117	-2.320	.021
	Age	-4.106	.905	-.229	-4.537	.000
	SEL	.148	.026	.289	5.702	.000
Happiness (Model 1)	(Constant)	66.496	.894		74.404	.000
	Gender	-.919	.980	-.049	-.938	.349
	Age	-5.977	1.035	-.303	-5.773	.000
Happiness (Model 2)	(Constant)	22.732	3.093		7.351	.000
	Gender	.852	.777	.046	1.096	.274
	Age	-4.000	.822	-.203	-4.864	.000
	SEL	.342	.024	.610	14.529	.000

Discussion

The first finding obtained in the study indicated that there was a significant relationship between social-emotional learning skills and academic achievement in middle school students and that social-emotional learning skills were a positive and significant predictor of academic achievement. The results and theoretical information obtained from various studies in the literature support this finding of our study. In their meta-analysis study conducted with data obtained from 270,034 students, Durlak et al. (2011) revealed that the social-emotional learning skills-based programs applied in schools contributed significantly to the academic achievement of students by 11%. Similarly, in their meta-analysis study, Wigelsworth et al. (2016) reported that the programs implemented in schools to develop social-emotional learning skills positively affected the academic achievement of students. In addition to these studies, the presence of this positive relationship between students' social-emotional learning skills and their academic achievement and the supporting role of social-emotional learning

skills in academic achievement was emphasized by many different researchers (Aygün, 2017; Elbertson et al., 2010; Mahoney & Weissberg, 2018; Merrell & Gueldner, 2010; Özdemir & Bacanlı, 2020). However, it is stated that in case of deficiencies and problems in the development of students' social-emotional learning skills, various negative results, including especially the decrease in academic performance, may occur (Elias et al., 2008; Greenberg et al., 2003).

In addition to the results of this study, the theoretical propositions about the components of social-emotional learning skills also support this finding. According to the CASEL (2015), the first component of social-emotional learning skills is conceptualized as self-awareness and it is stated that students with high self-awareness have a realistic perception of themselves, are aware of their strengths and have a high degree of self-confidence and self-efficacy. From this point of view, we can say that students with high social-emotional learning skills can be more successful in reaching academic goals thanks to these high self-awareness skills and that they can achieve higher academic achievement as a result.

Another component of social-emotional learning skills is expressed as self-management. Students with high self-management skills are characterized as individuals who can manage stress effectively and have self-discipline and self-motivation. Reflecting on this point of view, we can say that students with high social-emotional learning skills can effectively cope with stressful situations related to school and education processes thanks to their high self-management skills. In addition, these students will be able to set academic goals appropriate for their needs and limitations, thanks to their self-motivation and self-discipline, and they will strive to achieve these goals. As a result, these students will be able to reach their academic goals more easily and achieve higher academic achievement thanks to these skills.

It is stated that students with high social-emotional learning skills have the ability to make responsible decisions. At this point, students with high responsible decision-making skills are individuals who can recognize a problem instantly, analyze the problem clearly, and solve it. Moreover, individuals with responsible decision-making skills are also expected to have the ability to assess the problem, receive feedback about the problem, and monitor the consequences of their behavior. When these propositions about responsible decision-making, which is an important component of social-emotional learning skills, are evaluated together, we can say that students with high responsible decision-making skills can make healthier decisions about their academic processes thanks to these skills. In addition, these students are likely to evaluate the problems they experience in academic processes more healthily and solve these problems more easily. Furthermore, these students will be able to receive healthy feedback on their academic development processes and follow the results of their academic choices. All these processes will support students in reaching their academic goals and increasing their academic achievement.

In addition to all these research results and theoretical propositions, the structure that was taken as a base for the conceptualization of middle school students' social-emotional learning skills also supports this finding (Kabakçı & Korkut-Owen, 2010). In summary, various studies in the literature and theoretical propositions support the findings of this study regarding the positive relationships between social-emotional learning skills and academic achievement. From this point of view, we can say that increasing students' social-emotional learning skills can positively affect their academic achievement. In other words, based on this finding obtained from the present study, we think that interventions to increase social-emotional learning skills in studies conducted to support academic achievement may be

beneficial.

Another finding obtained within the scope of the research revealed that there was a significant correlation between social-emotional learning skills and happiness in middle school students and that social-emotional learning skills were a positive and significant predictor of happiness. This finding overlaps the structure that the conceptualization of social-emotional learning skills is based on, especially within the scope of this study. Kabakçı and Korkut Owen (2010) specified the components that make up the social-emotional learning skills structure as *"problem-solving skills"*, *"self-esteem enhancing skills"*, *"coping with stress skills"* and *"communication skills"*. From this point of view, we think that this situation will positively affect the general psychological health of individuals with a high level of these skills and that these skills may have a positive effect on the general happiness of the individual. In other words, an increase in these skills can significantly contribute to an increase in the happiness level of the individual. In addition, the perspective put forward by the CASEL (2015), which provides an important framework for the conceptualization of social-emotional learning skills, also supports this finding. The CASEL (2015) mentions two different skills, namely, *"social awareness skills"* and *"relationship skills"*, among the important components that make up social-emotional learning skills. It is mentioned that individuals with high social awareness can easily notice the perspectives of others and empathize with other people. Also, respecting the differences in daily life and other people can be considered as the characteristics of individuals with high social awareness skills. On the other hand, relationship skills, which is another skill possessed by individuals with high social-emotional learning skills, are characterized by social characteristics of individuals, such as communication, social participation, starting relationship, and a tendency toward teamwork. At this point, we think that these characteristics of individuals with high social awareness and relationship skills will positively affect their general psychological health and especially their happiness levels.

In addition to these propositions regarding the components and theoretical structure of social-emotional learning skills, the results obtained from different studies seem to support this finding. It is stated that self-esteem enhancing and communication skills, which form the structure of social-emotional learning skills, predict loneliness negatively and significantly in middle school students (Körler, 2011). Reflecting on this point of view, according to the results of this research, we can say that the increase in self-esteem enhancing and communication skills will reduce loneliness. We think that the decrease in loneliness through these skills, on the other hand, will contribute significantly to the happiness of the students. In this respect, we think that the findings revealed by Körler (2011) overlap with the results of this study. Studies examining the relationship between social-emotional learning skills and hope overlap with the findings obtained from this study, too (Candan & Yalçın, 2018; Kabakçı & Totan, 2013). These studies reported that there were positive and significant relationships between social-emotional learning skills and hope. In other words, we think that social-emotional learning skills will increase hope. At this stage, considering the role of hope as an important protective factor that supports the well-being and happiness of adolescents (Botor, 2019; Ciarrochi et al., 2015), increased social-emotional learning skills will increase not only hope but also individuals' well-being and happiness through hope. In addition to these, the results of the research showing positive relationships between social-emotional learning skills and positive emotions (Datu & Restubog, 2020) and life satisfaction (Kabakçı & Totan, 2013) also support the findings of the present study. Based on these findings, we can say that individuals with high social-emotional learning skills can experience more positive emotions and more satisfaction with their lives in general. It is thought that these

positive emotions and life satisfaction experienced by individuals will increase their happiness levels.

The results of the research emphasizing that social-emotional learning skills play a protective and improving role in the face of negative situations are important in terms of evaluating the results of the present study based on the literature. Social-emotional learning skills reduce psychological symptoms, such as depression, anxiety, and negative self-perception (Kabasakal & Totan, 2013), and moreover, school-based programs that are established on social-emotional learning skills can be functional in terms of early recognition of depression and reducing its negative effects (Merrell, 2001; Reicher & Matischek-Jauk, 2019). The role and function of social-emotional learning skills in preventing depression and reducing its effects has also been emphasized (Baughman et al., 2020).

There is a growing consensus on the importance of social-emotional learning in promoting positive mental health in schools (Hymel et al., 2018). It is thought that all these research results, which emphasize the functionality of social-emotional learning skills in reducing negativities, are consistent with the findings of the current study. From this point of view, we can say that social-emotional learning skills are an important factor that supports individuals' well-being and happiness by contributing to the reduction of many psychological symptoms, especially depression.

Conclusions and Recommendations

The evaluation of the findings obtained from the current study as a whole showed that there were significant correlations between social-emotional learning skills and academic achievement and happiness in middle school students. From this point of view, we can say that there were positive significant correlations between social-emotional learning skills with happiness and academic achievement. Moreover, the findings obtained from the study indicated that social-emotional learning skills significantly explained both academic achievement and happiness. Accordingly, increasing the level of social-emotional learning skills of middle school students will increase their academic achievement and happiness. In this context, based on research findings, we can say that interventions based on the development of social-emotional learning skills are an important common point that should be emphasized in studies conducted to increase both academic achievement and happiness levels (Greenberg et al., 2017).

When the research results are evaluated as a whole, studies on improving social-emotional learning skills to increase the academic achievement and happiness levels of students gain importance, which is also consistent with the basic mission of contemporary education. At this point, individual and group studies of guidance and psychological counseling specialists working in schools may be valuable. Conducting studies, such as positive-oriented peer guidance, individual guidance, group psychological counseling or psycho-educational programs, to improve students' social-emotional learning skills may be beneficial in developing social-emotional learning skills. In addition, the Multi-Tiered System of Supports (MTSS) can be created in schools to improve students' social-emotional learning skills and to prevent potential problems. This practice includes the selection of evidence-based practices in the Multi-Tiered Support System (MTSS) and the implementation of interventions in a gradual fashion (CASEL, 2019). At this point, a few practical suggestions can be offered to schools. For example, a school social-emotional learning skills program can be developed in order to improve students' social-emotional learning skills. The school environment that

allows students to interact with each other can be supported. Finally, students can be supported to make decisions about their own lives. Thus, developing social-emotional learning skills can contribute to promoting the academic achievement and happiness levels of students.

In addition, social-emotional learning skills-based activities can be included in programs to intervene in various mental problems, such as depression, anxiety and negative self-perception. Moreover, activities which are organized to support social-emotional learning skills can be included in school guidance and psychological counseling programs by considering the characteristics and needs of the school. Finally, we think that it may be important to conduct studies on supporting social-emotional learning skills in the classroom and home environment in accordance with families, teachers, and the consultation function of school guidance and psychological counseling services.

Limitations

Beside these recommendations for practitioners based on the research findings, it is important to eliminate the limitations of this research in future studies.

In this study, gender and age factors were considered as control variables in determining the predictive effect of social-emotional learning skills on academic achievement and happiness. This can be thought of as a limitation of the research. However, many factors that can explain the differences in academic achievements and happiness of students can be included in the research process in various studies. These factors include the educational level of the family, socioeconomic level, the attitude of the school towards academic success, the involvement of the family in the school, the educational and psychological support provided to the students, the availability of music, art classes, or a gym that allows students to socialize in the school, and the number of teachers. Thus, by incorporating such variables into studies as control variables in future studies, the level of knowledge to control different factors that may play a role in the predictive effect of social-emotional learning skills on academic achievement and happiness can be increased.

The data obtained from the participants in this study were collected through self-report scales. For this reason, the results of the research include limitations, such as social desirability, moderate response, and being affected by the mood of the participants, which may arise in the process of using self-report scales, especially in terms of social-emotional learning skills and happiness. At this point, the researchers tried to prevent these undesirable results by informing the participants at the stage of informed consent that personal data such as names would not be used, research results would not be used for individual purposes such as diagnosis, and the research data would be kept confidential. However, future researchers can eliminate this limitation and expand the current study by making use of different data collection methods, especially detailed observations and interviews.

Another limitation of this research was that the study group consisted of only students studying in six different secondary schools located in a province in the Eastern Anatolia Region of Turkey. Therefore, future researchers can increase the generalizability of the research results by conducting studies that include secondary schools in different provinces and regions.
The study was carried out only cross-sectionally. At this point, longitudinal studies can be conducted to contribute to the literature about the change in social-emotional learning skills

in the developmental process and the effect of this change on student success and happiness. Another limitation of this study is that the data were collected during the COVID-19 pandemic, and the academic achievement grade point averages of the students were limited to the 2020-2021 academic year.

Causal comparison-based studies can be conducted to obtain data on the causal relationships between social-emotional learning skills and academic achievement and happiness. Finally, the findings from the research show the results for only one culture. In this context, this study can be repeated with study groups that include students from different cultures to make cross-cultural comparisons.

Furkan Kaşıkcı is a research assistant of psychological counseling and guidance at the Faculty of Education, Ataturk University, Erzurum, Turkey. His research interests include psychological counseling and guidance, developmental psychology, educational psychology, positive psychology and social emotional learning.

Mehmet Buğra Özhan is an assistant professor of psychological counseling and guidance at the Faculty of Education, Atatürk University, Erzurum, Turkey. His research interests include psychological counseling and guidance, developmental psychology, educational psychology, positive psychology, and school burnout.

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