

Examining the Relationship between Academic Self-Handicapping and School Attachment Levels of Secondary School Students

Research Article

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To cite this article: Anli, G. (2019). Examining the Relationship between Academic Self-Handicapping and School Attachment Levels of Secondary School Students, *International Online Journal of Educational Sciences*, 11 (3),1.

ARTICLE INFO

Article History:

Received: 07.03.2018

Available online:

27.05.2019

ABSTRACT

The aim of the study is to examine the relationship between academic self-handicapping and school attachment levels of secondary school students. The research population was composed of 399 students studying in 5-8. grade of a secondary school located in Umraniye county of Istanbul. The sample consisted of 242 female and 157 male students and the mean age was 12.09. The data were obtained by using the Academic Self-Handicapping Scale and School Attachment Scale for Children and Adolescents. The frequency, arithmetical mean, standard deviation, correlation and path analysis were used in the analysis of the data. The results of correlation showed that academic self-handicapping had a weak, negative, significant correlation with attachment to school, attachment to teacher and attachment to friend which are the sub-dimensions of the school attachment. The results of path analysis indicated that school attachment had a negative effect on academic self-handicapping and this model explained 8% of the variance. The fit indices of this model were adequate.

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Keywords:

Academic self-handicapping, school attachment, secondary school students

Introduction

The school plays important role in the life of students. Students spend a certain part of their time at school with their friends and teachers. Therefore, the level of attachment of students to school, friends, and teachers is interesting for researchers in recent years. School commitment includes the feeling of love and loyalty that occurs when students feel that they are cared for by their teachers and friends (Wilson, 2004). The role of teachers in school engagement is extremely high. Neufeld and Mate (2004) argue that children learn best when they like their teachers and think that their teachers love them. They stated that the path of children's minds always passes through their hearts. Teachers must first communicate with students. Making connections with students and ensuring that teachers know what they care about is very important for

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DOI: <https://doi.org/10.15345/iojes.2019.03.009>

students to make better behavioral choices and to feel committed to the school community. According to Dooner et al. (2010), teachers should establish and maintain relationships with students. Teachers should develop these individual ties because students should feel that they are understood and appreciated. Cavanagh (2009) also states that the curriculum can be created correctly, but if the relationships are not established indissolubly, the school cannot be successful.

Teachers should create safe, fun and interesting learning environments in their classrooms. Caring for students and facilitating learning are effective for students to involve in the learning process. In the learning process, teachers have to accept students as private individuals and thus, they may be ready to improve their teaching practices (Dooner et al., 2010). From a social and pedagogical point of view, teachers need to create a structure and clearly address the expectations of the class. Students can develop comfortably when they know that they are free to take risks and will not be rejected if they make mistakes. A positive class climate is a structure that supports emotional safety for all students (Matsumura et al., 2008).

Friend attachment is important as well as the attachment to teacher in the school environment. According to Fagan and Pabon (1990), it should be noted that schools should influence their roles in the lives of students. When there are insufficient sports, arts etc. activities and friendships, these may lead some students to get bored. On the contrary, students may begin to feel a sense of belonging after participation in some extracurricular activities and may establish peer groups by connecting with children with similar interests. According to the students, meeting with friends at school is an important factor to raise their levels of school attachment. When the students are asked what factor bring them to the school, the first answer is to see their friends and socialize (Mouton et al., 1996). In particular, it is known that friendships in adolescence are important to develop a sense of belonging to the school. When some students were asked what can be done to make students feel that they belonged to the school, they responded that more places can be provided for students to spend time with their friends (Penner, & Wallin, 2012).

There are several studies concerning with school attachment. Numerous studies have demonstrated that positive relationships with teachers are associated with positive outcomes for students (Rudasill, Reio, Stipanovic, & Taylor, 2010). Findings of some studies expressed that students who have positive relationships with teachers have high levels of academic achievements (Crosnoe, Johnson, & Elder, 2004; Davis, 2006), motivation (Davis, 2006; Patrick, Ryan & Kaplan, 2007), academic self-efficacy (Roeser, Midgley, & Urdan, 1996) and well-being (Demaray, et al., 2009; Rueger, Malecki, & Demaray, 2010; Suldo et al., 2009; Van Ryzin, Gravely, & Roseth, 2009; Way, Reddy, & Rhodes, 2007). It was found that school attachment was significantly and positively related to academic success and motivation (Murdock, Hale & Weber, 2001; Osterman, 2000). You et al. (2008) found that school attachment was positively associated with life satisfaction. Savi (2011) found that attachment to school was associated with the well-being of children and adolescents. Furrer and Skinner (2003) clarified that the students in adolescence who were appreciated by their teachers were happier in the classroom than the students who thought that they were insignificant in the eyes of their teachers. In addition, studies showed that students who have high levels of attachment to school have less risky behaviors (Rudasill et al., 2010; Voisin, et al., 2005). On the contrary, school attachment was correlated negatively with leaving school (Finn, 1989; Goodenow, 1992; Osterman, 2000), school problems, substance use, physical and relational aggression (Hill & Werner, 2006; Lemma et al., 2001; Yüksek & Solakoglu, 2016), and criminal behaviors (Murdock, Hale, & Weber, 2001; Somers & Gizzi, 2001). It was shown that students who perceive low levels of teacher and peer support, likely have depressive symptoms and behavior problems (Way, Reddy, & Rhodes, 2007). Bergin and Bergin (2009) indicated that school attachment provides students with a safe environment in which they are free to undertake intellectual and social challenges. It was also determined that school attachment serves as a protective factor by preventing stress and increasing social interaction (Hill & Werner, 2006). As stated in these studies, attachment to school is considered as a protective factor that has

many basic developmental functions in children and adolescents' lives, especially to reduce the risk of developing behavioral problems (Hawkins et al., 2001).

The concept of academic self-handicapping includes a variety of strategies that students use to justify academic incompetence and failure. Thus, the students ambiguate the relationship between academic performance and attribution to their personality (Midgley & Urdan, 2001). When faced with the possibility of failure, students exhibit some behaviors such as reducing their efforts, taking less time to work, or postponing. Their aim is to attribute the possible academic failures to these behaviors rather than their ability. In other words, these students believe that failure because of laziness is better than failure because of stupidity. (Cavendish, 2004). Academic self-handicapping in the school environment allows students to protect their self-esteem when faced with academic uncertainty. Many educational psychologists agree that academic self-handicapping is not only due to incompetence but also due to the need to produce a logical explanation for possible academic failures (Urdan & Midgley, 2001).

Covington (1992) has filled a significant gap in his work in the school environment, which reveals the role of self-handicapping. Covington claimed that the desire to maintain a sense of self-worth was the main cause of academic self-handicapping. The effort to avoid being fool and incompetent also helps to distract the individual's attention from failure and inadequate performance. However, such strategies undermine the performance of the students (Midgley & Urdan, 2001). Covington stated that postponement is used as a self-handicapping strategy, and if the postponement fails, it is because students delayed their work until the last moment, and if they succeed despite their postponement, others will consider the postponement as a special talent (Covington, 1992). It is a condition in which self-handicapping is considered to be a minor imperfection of an individual (e.g. experiencing a test anxiety) in order to disguise a greater imperfection that may be perceived as a stupidity by others (Midgley, Arunkumar, & Urdan, 1996).

Academic self-handicapping provides an excellent excuse for poor academic performance. Urdan and Midgley (2001) reported that self-handicapping students could feel isolated in the classroom because they spent less effort and became unsuccessful. Because teachers often reward students who are successful in class verbally or behaviorally and keep successful and unsuccessful students separate from each other. It was observed that students who have academic self-handicapping had a vague self-esteem (Harris and Snyder, 1986), low school achievement (Midgley et al., 1996; Midgley & Urdan, 1995, 2001; Urdan, Midgley & Anderman, 1998), demonstrated incompatible behavior and attitudes, loaded their performance and to chance or coincidence (Murray & Warden, 1992; Zuckerman et al., 1998). It is known that students who are in the expectation of failure will be interested in self-protective strategies in order to combat the consequences of failure. Therefore, it is likely that students who have a fear of failure may need self-handicapping strategies to protect themselves from threats or justify their failure (Lovejoy, 2008).

Many studies have examined the use of self-handicapping in educational environments. It was found that academic self-handicapping was associated with inefficient working habits, negative coping strategies, failure in time management and self-regulated learning, and low academic achievement (Urdan & Midgley, 2001). Feick and Rhodewalt (1997) found that students who suggested more excuses such as insomnia and work on the wrong topic prior to the exam reduced their burden on their abilities. As the level of self-handicapping strategies of the students increased, they exhibited social media addiction and social media addictions feed the academic self-handicapping of the students (Anlı, 2018). In their study on university students, Murray and Warden (1992) expressed that self-handicapping individuals get lower scores, perform less, perceive themselves less competent than others, but if they succeed, they attribute their successful performance to luck or coincidence. Zuckerman, Kieffer, and Knee (1998) demonstrated that academic self-handicapping and low academic success are associated with each other and become a chronic vicious circle over time. Additionally, it was shown that higher self-handicapping behaviors are related to lower academic

performance, incompatible work habits such as limited effort, inadequate practice, and performance-damaging work environments.

Aim of the study

In some studies, academic self-handicapping led to academic failure and in turn, students who had lower academic achievement use self-handicapping (Leondari & Gonida, 2007). Zuckerman et al. (1998) describe academic self-handicapping as an ordinary self-destructive behavior; it is a field where education psychologists pose with care because it leads to a departure from the school and learning. Students who handicap themselves are trapped in a cycle of avoidance and failure due to the increase in the frequency of self-handicapping over time as they isolate themselves from learning environments. Therefore, the most destructive result of self-handicapping is desensitization of failure as these students need more handicapping behaviors incrementally (Urda & Midgley, 2001). According to Klem and Connell (2004), students who are attached to school have good grades, participate in extracurricular social activities, continue to school regularly and have a relationship with different social groups in school environment. Thompson (2005) pointed out that students who have positive feelings towards school and take part in various activities at school have a greater chance of becoming individuals who can graduate from school and learn autonomously.

If students have greater academic achievements, they may feel more connected to their school. If students do not meet the expectations of the teachers, teachers usually express it in disapproval, orally or other ways. On the other hand, when students lose their confidence, their motivation and the quality of their academic studies decreases (Mulford & Silins, 2003). As a result of the studies mentioned above, school attachment and academic self-handicapping are the concepts that influence each other but there has been no study which examined the relationship between them. Therefore, findings of this research are thought to be contributed to the literature. It is foreseen that academic self-handicapping will decrease as school attachment increases; academic self-handicapping will increase as school attachment decreases. It is hoped that the findings of this study will reveal the importance of these two concepts, experts and researchers in the field can benefit from the results. It is expected that this study will be the basis for the intervention studies on these two concepts in school environments. Based on these circumstances mentioned above, the aim of this research is to examine the relationship between academic self-handicapping and school attachment levels of secondary school students. In this context, hypotheses of this research are given below.

1. There is a significant, negative relationship between academic self-handicapping and school attachment,
2. School attachment has a negative effect on academic self-handicapping.

Structural Equation Modelling

Structural Equation Model is a statistical method used in both scientific researches related to social, behavior and education as well as in biology, marketing and medical research (Kline, 2011). SEM is an analysis technique that allows the testing of latent constructs hypotheses taking into account measurement errors (Bagozzi, 2010; Bagozzi & Yi, 1990, 2012). SEM is defined as a combination of different statistical methods such as factor analysis, canonical correlation and multiple regression (Pallant, 2005; Ullman, 2006). SEM includes the observed and latent variables and the factor analysis by defining the latent variables with the observed variables (Kahn, 2006; Tabachnick & Fidell, 2007), including the regression analysis in terms of the canonical correlation and the causal relationships between the variables because it contains many dependent and independent variables (Tabachnick & Fidell, 2007). Structural Equation Models can be examined in two parts: Measurement and Structural Model. Measurement models are set up to identify the relationship between unobserved and observed variables. The measurement model is a confirmatory factor model. In the

measurement models, the relationship between the observed variable and the latent variable is shown by the factor loads. Each unobserved variable is measured by various observed variables (Schumacker & Lomax, 2004: 200).

Method

Research Design

In this study, it was aimed to reveal the predictive relationships between students' attachment to school and academic self-handicapping and to test the model created by this relationship. Relational screening model was used in the study. Relational screening is a research model to determine the relationship between two or more variables and to obtain clues about cause and effect (Büyüköztürk et al., 2012; Karasar, 2009; McMillan & Schumacher, 2006).

Participants

The research was carried out with 399 students studying in 5-8. grade of a secondary school located in Umraniye county of Istanbul. The sample consisted of 242 (% 60,7) female and 157 (% 39,3) male students and the average age was 12.09. Due to the limitations of time, money and labor in the selection of the participants, "appropriate sampling" method has been determined which enables the sample to be chosen from easily accessible and practical structures. (Bryman, 2004).

Instruments

Academic Self-handicapping Scale. This scale is a 5-point Likert type one-dimensional instrument developed by Urdan and Midgley (2001) and adapted to the Turkish culture by Anlı et al. (2018). The reliability coefficient of the original scale was calculated as .88. The scale includes 6 items (e.g. Bazı öğrenciler sınavdan önceki gece vakitlerini boşa harcarlar. Sonra sınavdan iyi alamazlarsa geçirdikleri boş vakitleri gerekçe gösterirler. Bu sizin için ne kadar geçerlidir?). There are no reverse items and the total score is between 6 and 30. Higher scores on scale items mean higher levels of academic self-handicapping. In adaptation study, the results of confirmatory factor analysis showed that the single-factor structure gave good fit as in the original form ($\chi^2/df = 1.12$, $p < .001$, $RMSEA = .018$, $RMR = .030$, $GFI = .992$, $AGFI = .981$, $CFI = .998$, $NFI = .975$, $RFI = .975$, $IFI = .998$, $TLI = .997$). The Cronbach alpha internal consistency coefficient of the scale was found to be .81. The item-total correlations of the scale were between .48 and .63 according to the item analysis (Anlı et al., 2018). In this study, the reliability coefficient obtained from the scale was determined as .81.

School Attachment Scale for Children and Adolescents. The scale was developed by Hill and Werner (2006) and adapted to Turkish by Savi (2011). There are no reverse items and the total score is between 13 and 65. Higher scores on scale items mean higher levels of school attachment. The adaptation study of the scale was carried out with 708 students aged between 9 and 14 years, who were in grade 3 and 8. The scale consisted of three sub-dimensions and 13 items, including attachment to school (e.g. Bu okulda olmaktan mutluyum), attachment to teacher (e.g. Öğretmenlerimi seviyorum) and attachment to friend (e.g. Bu okulda önem verdiğim arkadaşlarım var). The results of the adaptation study showed that the Cronbach alpha internal consistency coefficient of the scale was .84; the test-retest reliability coefficient was .85, and the test-half reliability coefficient was .78 for the whole scale. As a result of item-test correlation, it was concluded that the relationship of items with total points ranged from .66 to .85. In this study, the reliability coefficient obtained from the scale was determined as .86.

Analysis of Data

Data were collected by applying scale forms in the secondary school. Students were informed about the study, asked for voluntary participation and were expected to answer the questions in the form sincerely. In order to perform correlation analysis, it was checked whether dependent and independent variables have a

normal distribution. Skewness and kurtosis values were examined and it was observed that this criterion was met and correlation analysis was performed (Büyüköztürk, 2009; Şencan, 2005). In addition, the impact of school attachment on academic self-handicapping was examined by structural equality modeling. Structural equation modeling is a statistical approach to test a theoretical model, revealing causal and mutual relationships between observed and latent variables (Schumacker & Lomax, 2004). Analyses were performed in SPSS 23 and Amos 24 software packages.

Findings

Table 1 shows the mean, standard deviation, skewness, kurtosis, Cronbach's α values and correlations of the variables used in the study.

Table 1. Descriptive Statistics and Correlations of the Variables

Variables	1	2	3	4
1. Academic Self-handicapping	—			
2. Attachment to School	-.24**	—		
3. Attachment to Teacher	-.18**	.59**	—	
4. Attachment to Friend	-.12**	.35**	.45**	—
M	12.92	16.64	17.47	21.02
SD	5.33	3.63	2.51	3.36
Skewness	.78	-1.36	-.88	-.61
Kurtosis	.33	1.76	.07	-.34
Cronbach α	.81	.90	.76	.71

** $p < .01$

As shown in Table 1, the mean levels of the sub-dimensions of school attachment were moderate, close to each other, and attachment to teacher had the highest mean. The mean of academic self-handicapping could be accepted as moderate too. Academic self-handicapping had a weak, negative, significant correlation with attachment to school ($r = -.24, p < .01$), a weak, negative, significant correlation with attachment to teacher ($r = -.18, p < .01$), and a weak, negative, significant correlation with attachment to friend ($r = -.12, p < .01$).

Assumptions of SEM

Normality, missing values, measurement and sampling errors, model fit indices are the assumptions of the structural equation modelling (Kumar, & Kumar, 2015). Assumption of normality has been obtained by skewness and kurtosis values. The skewness (ranged .59 to -1.47) and kurtosis (ranged -.06 to 1.83) values were examined and it was observed that this criterion was met (Büyüköztürk, 2009; Şencan, 2005). Missing values and outliers have been removed from the data prior to the analysis. Lomax (1986) indicated that as variance was increased from zero, error variance decreased. Additionally, in SEM, minimum sample size of 100 is adequate (Boomsma, 1985) or five or ten observations for each parameter are required (Bollen, 2014). There were no measurement and sampling errors in the data. Finally, the chi-squared test (χ^2/df), Comparative Fit Index (CFI), Goodness of fit index (GFI), Incremental fit index (IFI), the Root Mean Square Error of Approximation (RMSEA) and Standardized Residual Root Mean Square (SRMR) were used as fit indices (Schweizer, 2010). It has been clearly seen that all the assumptions have been met in the present study.

Measurement Model

In literature, it was observed that the measurement models of all variables can be tested separately as well as the measurement models of all variables may be tested within a single model (Şimşek, 2007). In this study, measurement model was tested together within a single structural model. The measurement model and

the structural model were tested using the maximum Likelihood estimation technique and covariance matrix using AMOS program.

Researchers should first establish measurement models when performing hypothesis testing through SEM analysis (Bagozzi & Yi, 2012). The measurement model is a model in which the hypothesis tests are performed to define exactly how the latent structures within the structural model are measured. In other words, how many expressions and how many dimensions of a latent structure will be operationalized in a manner that is clearly included in the measurement model. In the process of establishing measurement model, researchers should also point out whether the latent structures in the model are reflective or formative (Diamantopoulos, Riefler, & Roth, 2008). In this research, prior to the test of structural equation model, a reflective measurement model with including the all variables was formed and analyzed. The fit indices were $\chi^2/df = 2.01$, RMSEA = 0.05, SRMR = 0.043, CFI = 0.95, GFI = 0.93, and IFI = 0.95. These results indicate that the model fits well. The t test results for the model show that all factor loads of variables are statistically significant.

Structural model (CFA)

In the context of the structural model, a path can be defined between η_1 and η_2 (school attachment and academic self-handicapping, in the present model) and test the statistical significance of the related path. The path analysis was performed to see the effect of the exogenous variable (school attachment) on the endogenous variable (academic self-handicapping). The chi-squared test (χ^2/df), Comparative Fit Index (CFI), Goodness of fit index (GFI), Incremental fit index (IFI), the Root Mean Square Error of Approximation (RMSEA) and Standardized Residual Root Mean Square (SRMR) were used as fit indices (Schweizer, 2010). The fit indices were $\chi^2/df = 2.04$, RMSEA = 0.05, SRMR = 0.047, CFI = 0.94, GFI = 0.93, and IFI = 0.94. It was determined that the fit indices of the model that examines the effect of school attachment on academic self-handicapping are adequate (Byrne, 2010; Kline, 2011).

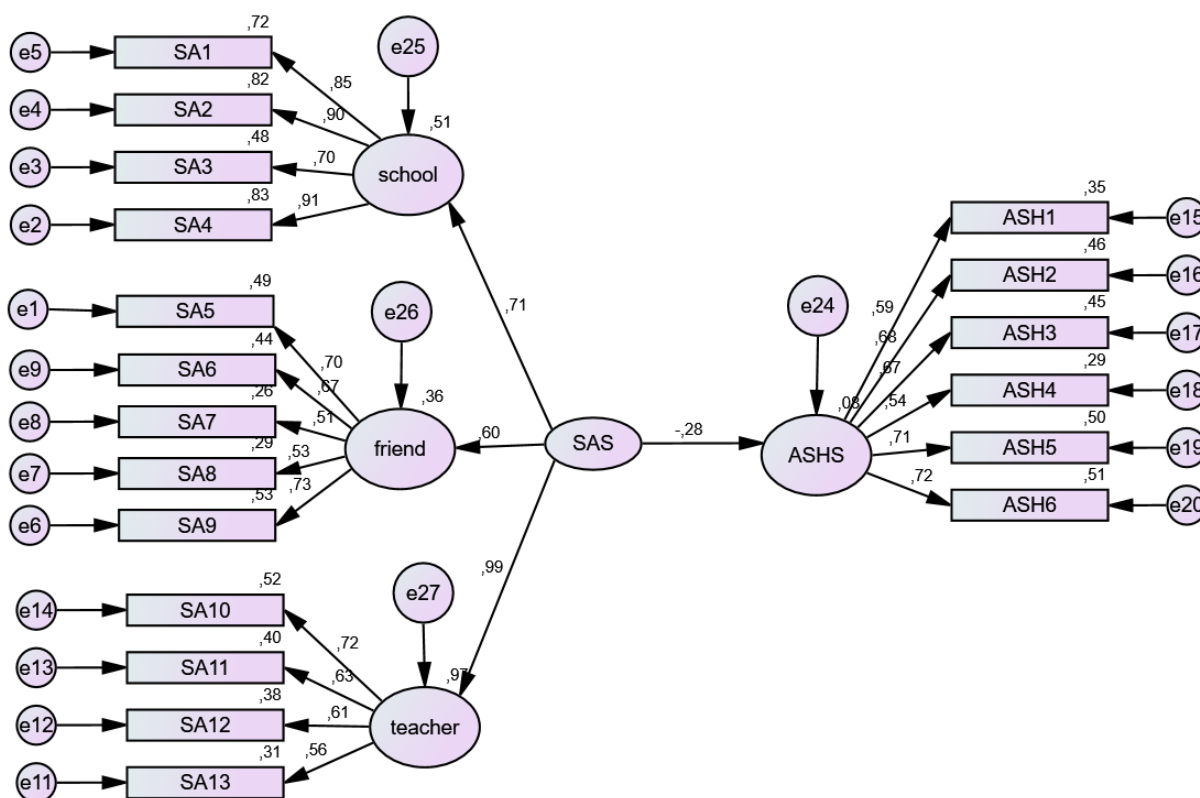


Figure 1. Path Analysis of the Model

As seen in Figure 1, when the relationships between school attachment and academic self-handicapping levels were examined, it was determined that school attachment had a significant, negative effect on academic self-handicapping ($\beta = -.28, p < 0.01$) and this model explained 8% of the variance. As a result of testing of the model proposed in the study, it was found that all of the path coefficients between latent variables were statistically significant. The model has been tested with all latent variables and all path coefficients have been indicated as sufficient. As it is understood from this result, school attachment had a significant, negative effect on academic self-handicapping.

Discussion and Conclusion

The aim of the study is to examine the relationship between academic self-handicapping and school attachment levels of secondary school students. Findings demonstrated that academic self-handicapping had a weak, negative, significant correlation to attachment to school, attachment to teacher and attachment to friend. Path Analysis results show that school attachment had a negative effect on academic self-handicapping. According to these results, academic self-handicapping will decrease as school attachment increases; academic self-handicapping will increase as school attachment decreases. To my knowledge, this is the first study investigating the relationships between academic self-handicapping and school attachment so the study is thought to contribute to the literature.

There are some studies in the literature about our findings. The results of some studies showed that the students who applied to self-handicapping were more unsuccessful and fed negative attitudes towards education and school (Tice & Baumeister, 1997; Urdañ & Midgley, 2001; Zuckerman et al., 1998). Negative results of academic self-handicapping include low academic achievement, mental and behavioral distance from school, pessimistic view of academic performance, and depressive self-esteem (Elliot & Church, 2003; Martin et al., 2003; Urdañ & Midgley, 2001). Urdañ and Midgley (2001) reported that self-handicapping students could feel isolated in the classroom because they spent less effort and became unsuccessful. It can be said that these studies support the findings of the study.

The school climate can affect the attachment to school levels of the students and this may lead to academic withdrawal and they can be alienated from the academy. Students with low school attachment can spend time in other places outside of the school where they feel enjoyment, or make them feel amused. In general terms, it may occur when the school environment is not entertaining for students or when students have poor communication with peers, teachers, and whole class. As a result of this, academic failure may occur and students may use self-handicapping strategies in the long term to cope with this failure. They perform these strategies in the form of postponement, escape, distraction and engagement in extracurricular activities to protect their self-esteem in case of failure. In other words, they accept to be described as "lazy" in order not to be considered as "stupid". In addition, students with high levels of academic self-handicapping can also have low face-to-face relationships and socialization, loss of teacher communication. These students can also experience situations such as escaping school, having bad habits, disagreements, and conflicts with the family. It is considered that in consequence of academic self-handicapping and low school attachment, students may experience addictions to the computer, mobile phones, online or offline games. Contrarily, students with a high level of commitment to the school know that they will receive the necessary support from their friends or teachers for a possible failure. Therefore, they may not need academic self-handicapping strategies.

In this study, certain limits should be considered, in both interpreting the results and in planning a future investigation. First of all, this study is limited to a certain age and school group. In this respect, new researchers can conduct this study in different age groups. Secondly, this study is limited to a secondary school in a county of Istanbul. Therefore, researchers may perform the study again in schools with different socioeconomic levels in several cities in Turkey or other countries. Thirdly, psychological counseling and psycho-education programs that aim to reduce the academic self-handicapping, enhance the school

attachment levels can be developed and applied in education environments. Experimental and relational studies can be done with variables such as fear of failure, school climate, absenteeism etc. which are both associated with academic self-handicapping and school attachment. Finally, individual sessions can be held with participants in coordination with the group programs, which aim to decrease the level of academic self-handicapping.

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