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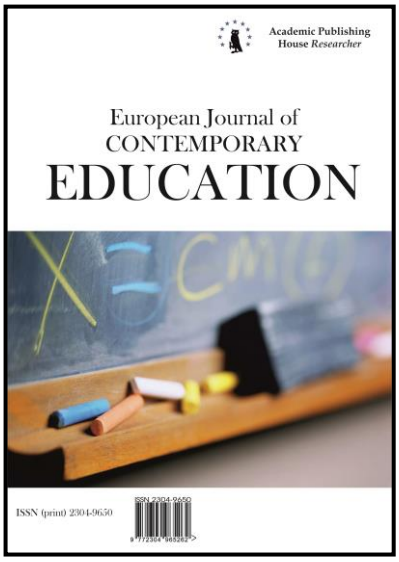

The Problems of Contemporary Education

The Relationships between Positive and Negative Perfectionisms, Self-Handicapping, Self-Efficacy and Academic Achievement

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Abstract

This research aimed to investigate the relationships between positive and negative perfectionisms, self-handicapping, self-efficacy and academic achievement. For this purpose, an extensive literature review was conducted and a model was suggested. Structural equation model was employed to test the model. The study group of the research consisted of 350 students studying at the Faculty of Muallim Rıfat Education at Kilis 7 Aralık University. The data was collected through positive and negative perfectionism scale, self-handicapping scale, self-efficacy scale and personal information form. Descriptive, correlation, path and bootstrap methods were used to analyze the data. As a result of the data analysis, it was revealed that students' positive perfectionism have a significant positive effect on their academic achievement and self-efficacy, while they have a significant negative effect on their self-handicapping. Besides, it was found that the negative perfectionism have a significant negative effect on their academic achievement and self-efficacy, and a significant positive effect on self-handicapping. Lastly, it was seen that self-efficacy and self-handicapping play partial mediation roles in the relationship between positive and negative perfectionism and academic achievement. Based on this result, it can be stated that positive and negative perfectionisms are significant variables which have direct and indirect effects on academic achievement.

Keywords: positive and negative perfectionisms, self-handicapping, self-efficacy and academic achievement.

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1. Introduction

Academic achievement significantly determines the future for educational and professional achievement (Flashman, 2012) and plays a crucial role in training qualified human resource who can be effective in the economic and social development of a nation (Ali et al., 2009). Academic achievement provides information about the effectiveness and efficiency of educational institutions and to what extent they fulfill their objectives. Academic achievement not only gives information about schools' effective levels but also shapes the future of a nation, particularly youth (Aremu, Sokan, 2002). Therefore, educators and researchers have been interested in determining the factors affecting academic achievement for a long time (Crosnoe et al., 2004) and within this scope, a number of researches have been conducted. The researches indicate that many factors concerning student, teacher and school influence students' academic achievement (Vishalakshi, Yeshodara, 2012). Some of these factors are socio-economic status (Tomul, Savasci, 2012; Ahmar, Anvar, 2013; Ghaemi, Yazdanpanah, 2014; Çiftçi, Çağlar, 2014), self-respect (Aryana, 2010; Booth, Gerard, 2011; Rahmani, 2011), motivation (Firouznia et al., 2009; Amrai et al., 2011; Martin, Steinbeck, 2017), learning and studying approach (Chung, Yip, 2002), friends (Ding, Lehrer, 2007), self-efficacy (Motlagh et al., 2011; Turner et al., 2009; Li, 2012), self-handicapping (Kalyon et al., 2016; Urdan et al., 1998; Javanmard et al., 2012) and perfectionism (Witcher et al., 2007; Stoeber, Rambow, 2007; Soleymania, Rekabdar, 2010). It is known that some of these factors positively affect students' academic achievement, while others negatively affect their academic achievement.

The results of the researches conducted in this context indicate that one of the variables affecting students' academic achievement is perfectionism (Witcher et al., 2007; Stoeber, Rambow, 2007; Soleymania, Rekabdar, 2010). Perfectionism is defined as a personality type characterized by different qualifications such as striving for flawlessness and perfectionism (Stoeber, Otto, 2006). Perfectionism comes to existence thorough one's setting high standards for his/her performances or behaviors (Slaney et al., 2001). Perfectionism has been studied and dealt with in different ways by different researchers in history. According to some researchers, perfectionism is one-dimensional characteristic which reveals some psychological and pathologic negative results such as failure, blaming, shame, low sense of self-respect and depression and so forth (Burns, 1980; Hewitt, Dyck, 1986; Pacht, 1984), whereas others argue that it is a multi-dimensional characteristic involving both positive and negative aspects (Hewitt, Flett, 1991; Stoeber, Otto, 2006). According to the approach regarding perfectionism one-dimensional characteristic, perfectionist people set unrealizable high standards for both themselves and others, usually experience the fear of making mistakes and are not satisfied with their achievements (Rimm, 2007). According to the those researchers who consider perfectionism multi-dimensional characteristic, perfectionism has two dimensions, namely adaptive and maladaptive ones (Parker, 2000; Silverman, 2007). Adaptive perfectionism involves setting personal standards at high level and realizable and attainable goals, being satisfied with achievements and happy to realize the determined goals, fulfilling duties appropriately and on time, accepting mistakes, resetting achievement standards under certain circumstances and making the best of everything. On the other hand, maladaptive perfectionism includes setting unrealizable goals, one's anxiety to make mistakes, fear of being criticized by others and the anxiety for the derived consistencies between the determined standards and achieved results (Stoeber, Otto, 2006; Geranmayepour, Besharat, 2010). Those adaptive perfectionists have significant ability to adapt. If they fail to reach their determined goal, they either change it or work hard to overcome their failure (Haase et al., 2002). In this regard, positive perfectionism enables individuals to get positive results, whereas negative perfectionism causes them to encounter negative results such as uneasiness and strain (Tziner, Tanami, 2013). The researches reveal that those maladaptive perfectionists experience more negative psychological problems such as depression and anxiety, and have lower sense of self-confidence and self-efficacy, make more self-criticism regardless of succeeding or failing, are not satisfied with their achievement as opposed to those adaptive perfectionists who have higher sense of self-respect and self-efficacy, are more satisfied with their achievements and more embrace their successes and failures (Wang et al., 2007; Zeigler-Hill, Terry, 2007).

Self-handicapping is one of the factors which negatively affects students' academic achievement. Self-handicapping concept was, for the first time, defined by Berglas and Jones (1978). According to Berglas and Jones (1978), self-handicapping is "any action or choice of performance setting that enhances the opportunity to externalize (or excuse) failure and to

internalize (reasonably accept credit for) success". Individuals sometimes avoid success and create barriers affecting their performances negatively to protect or increase their self-esteem. Self-handicapping is a behavior type which is used to decrease one's responsibility for his/her failures to protect his/her self image and public reputation. According to Midgley and Urdan (1995), people actively use self-handicapping strategy to indicate their failures stemming from external conditions rather than the lack of their innate ability when they think to fail. People prefer being seen as victims of external conditions and do not want to be perceived as untalented and unskillful. According to Shepperd and Arkin (1989), individual can employ self-handicapping to protect himself/herself from others' negative evaluations. According to Higgins (1990) and Zuckerman, et al. (1998), the ultimate aim of self-handicapping strategies is to protect or increase one's self-esteem and self-efficacy. This enables him/her to keep positive thinking about himself/herself, though it causes reduction in his/her success after some time and gives harm to his/her self-esteem. McCrea and Hirt (2001) argue that self-handicapping is an effective strategy to protect self-esteem in short term. However, it does harm to self-esteem and intrinsic motivation in long term (Zuckerman, Tsai, 2005). Academic achievement is negatively affected by self-handicapping and the effort to be made for next tasks decreases (McCrea, 2008). In this respect, according to Hirt et al. (1991), self-handicapping represents a mechanism which gives harm to individual. Because self-handicapping encourages people to undertake less responsibility and make less effort and reduces their self-awareness. This causes them to blame external factors for their failures (Zuckerman et al., 1998).

Self-handicapping strategies can be employed in a number of fields such as management, sport and particularly education. The frequent use of these strategies jeopardizes performances and hinders success (McCrea et al., 2012). Self-handicapping behaviors generally appear in procrastinating, making no efforts, illness, shyness, excuses, listening to music in a distracting way, use of drug and alcohol, sleeplessness, spending much time with friends and activities (Schwinger, Stiensmeier-Pelster, 2011; Alesi et al., 2012; Shepperd, Arkin, 1989). Self-handicapping strategies with regard to academic sense typically involve abuse of alcohol and drug, procrastinating and not completing assignments, not reading theoretical course materials, lack of attention in class and studying insufficiently for exams (Schraw et al., 2007; Berglas, Jones, 1978). The researches indicate that academic self-handicapping is associated with different variables including anxiety, stress, depression and fear of failure (Schraw et al., 2007; Sahranç, 2011), extrinsic motivation (Urdan, Midgley, 2001), self-efficacy, life satisfaction and self-acceptance (Kinon, Murray, 2007), low sense of self-respect (Ferrari, 1994), perfectionism (Pulford et al., 2005), focus of control (Akça, 2012), neurotic personality characteristics (Bobo et al., 2013; Conrad, Patry, 2012).

Another effective variable on academic achievement is perceived self-efficacy. It is seen that perceived self-efficacy has a significant effect on students' motivation, performance and academic achievement (Kadivar, 2003; Aarabian et al., 2005). Perceived self-efficacy is defined as determination of course of action which is required to fulfill a goal and beliefs concerning one's capability in implementation (Bandura, 1997). Self-efficacy is regarded the most important component of achievement in Bandura's social learning theory and positive psychology. Perceived self-efficacy is an important factor to conduct successful performance and it has a determining effect on the skills to control affection, thought and behaviors (Halper, Vancouver, 2016). A person's just having knowledge and skills are generally not sufficient to successfully implement a particular work. That person also should have belief and expectation about his/her capability to conduct that work. The researchers demonstrate that those who believe in themselves to fulfill the assigned tasks perform better compared with those who do not believe in themselves (Pajares, 1996; Jackson, 2002). Self-efficacy is one of the most important factors which keeps students' efforts throughout learning process (Bandura et al., 2003). Those students with a high sense of perceived self-efficacy, are inclined to use various cognitive and meta-cognitive learning strategies and more capable to control their motivational beliefs as well (Pintrich, 1999). As a result of this, they score higher points in their lessons and set higher aims for themselves and make more effort and show more patience in their works (Pajares, 2002). In contrast to this, those students with a low sense of self-efficacy generally experience fear of failure and avoid undertaking hard tasks (Bandura, 1997).

In this research, the relationships between positive and negative perfectionisms, self-handicapping, self-efficacy and academic achievement were examined thorough structural equation model (SEM). Tested hypothesizes in the context with this aim as follows:

H_1: Positive perfectionism significantly and positively affects academic achievement.
H_2: Negative perfectionism significantly and negatively affects academic achievement.
H_3: Positive perfectionism significantly and negatively affects self-handicapping.
H_4: Positive perfectionism significantly and positively affects self-efficacy.
H_5: Negative perfectionism significantly and negatively affects self-efficacy.
H_6: Negative perfectionism significantly and positively affects self-handicapping.
H_7: Self-handicapping significantly and negatively affects academic achievement.
H_8: Self-efficacy significantly and positively affects academic achievement.
H_9: Self-efficacy and self-handicapping play mediation role in the relationship between positive perfectionism and academic achievement.
H_{10}: Self-efficacy and self-handicapping play mediation role in the relationship between negative perfectionism and academic achievement.

2. Materials and Method

In this study, relational screening model was used to examine the relationships between positive and negative perfectionisms, self-handicapping, self-efficacy and academic achievement. Relational screening is a research model which aims at determining the existence or degree of joint variation between two or more variables (Karasar, 2006; Cohen et al., 2007). A comprehensive literature review was firstly conducted and a model was suggested based on the data derived from the review (Javanmard et al., 2012; Zuckerman et al., 1998; Aarabian et al., 2005; Stoeber, Rambow, 2007; Witcher et al., 2007; Shaheen, 2013; Lotar, 2005; Ram, 2005; Kadivar, 2003; Kalyon et al., 2016; Urdan et al., 1998). According to this model, positive perfectionism directly and indirectly affects academic achievement through self-efficacy and self-handicapping, whereas negative perfectionism directly and indirectly affects academic achievement through self-efficacy and self-handicapping. The suggested model was analyzed by structural equation model and the relationships between the variables were revealed.

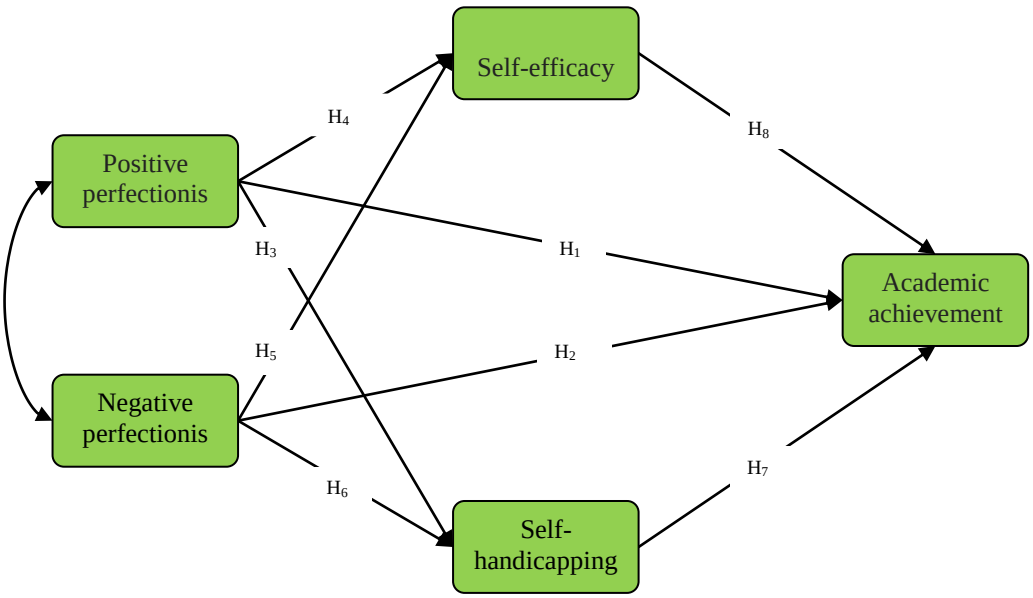

Fig. 1. The suggested model with regard to positive and negative perfectionisms, self-handicapping, self-efficacy and academic achievement.

2.1. Population and Sample

The population of the research comprised of all the students studying at the Faculty of Muallim Rıfat Education at Kilis 7 Aralık University in 2016–2017 academic year. Data collection instrument was sent to all the students studying at the faculty through student automation system and they were asked to fill out the scales and return them to the researcher within one month.

In this context, the data obtained from 350 students who returned the scales to the researcher within one month, were statistically analyzed. 100–150 participants is considered the minimum sample size for conducting SEM (Tinsley, Tinsley, 1987; Ding et al., 1995; Tabachnick, Fidell, 2001). Some researchers consider an even larger sample size for SEM, for example, sample size = 200 (Boomsma, Hoogland, 2001). In this regard, the number of 350 participants is sufficient for this research. The participants were 44.3 % male students and 55.7 female students. 18 %, 15.1 %, 16.3 %, 24.3 % and 26.3 % of the students study in Social Sciences Teaching, Turkish Teaching, Primary School Teaching, Science Teaching, Pre-school Teaching, respectively. 26.6 %, 18 %, 21.4 % and 34 % of the participants are freshman, sophomore, junior and senior students, respectively.

2.2. Data Collection Tools

Positive and negative perfectionism scale, self-handicapping scale, general self-efficacy scale and personal information form were used to collect the data in the research.

General self-efficacy scale: General self-efficacy scale which was developed by Jerussalem and Schwarzer (1992) and adapted into Turkish by Yeşilay (1996) was used to determine students' perceived self-efficacy. It is one dimensional scale with 10 items and Five-point Likert-point scaling. In the context with the research, the validity and reliability of the scale were re-tested. Confirmatory factor analysis (CFA) was conducted to test the validity of the scale. As a result of CFA, it was found that the scale has fit index values ($\chi^2/df = 44.17/34 = 1.3$; RMSEA = .03; CFI = .99; TLI = .99; GFI = .97; AGFI = .96). The reliability of the scale was calculated with Cronbach Alpha coefficient. Cronbach Alpha coefficient for the scale is .95.

Positive-negative perfectionism scale: Positive-negative scale which was developed by Kırdök (2004), consists of 17 items with 2 sub-dimensions and Four-point Likert-point scaling. While the positive perfectionism sub-dimension comprises of 10 items, whereas the negative perfectionism sub-dimension comprises of 7 items. The factor loadings for positive perfectionism sub-dimension vary between .47 and .64 and account for 18.22 % of the total variance. On the other hand, the factor loadings for negative perfectionism sub-dimension vary between .52 and .64 and account for 14.22 % of the total variance. Alpha coefficient for positive perfectionism sub-dimension is .95, while alpha coefficient for negative perfectionism sub-dimension is .78. In the context with the research, the validity and reliability of the scale were re-tested. CFA was implemented to test the validity of the scale. CFA indicated that the scale has fit index values ($\chi^2/df = 193.17/117 = 1.65$; RMSEA = .04; CFI = .98; TLI = .97; GFI = .94; AGFI = .92). The reliability of the scale was tested with Cronbach Alpha coefficient. Cronbach Alpha coefficient was calculated for positive perfectionism as .92 and for negative perfectionism as .94.

Self-handicapping scale: Self-handicapping scale which was developed by Jones and Rhodewalt (1982) and adapted into Turkish by Akın (2012), was employed to measure students' level for self-handicapping. It is one dimensional scale with 25 items and Six-point Likert-point scaling. Higher scores derived from the scale indicate that an individual's verbal and behavioral tendencies for self-handicapping are high. According to CFA conducted by Akın (2012), it is seen that the scale has fit index values ($\chi^2 = 50.23$, p = .058, RMSEA = .037, NFI = .98, CFI = .99; GFI = .97, AGFI = .94). The factor loadings for the scale differ between .34 and .69. Cronbach Alpha internal consistency reliability coefficient for the general scale is .90. In the context with this research, the validity and reliability of the scale were re-tested. CFA was conducted to test the validity of the scale. It was revealed that it has fit index values ($\chi^2/df = 630.36/273 = 2.31$; RMSEA = .06; CFI = .95; TLI = .94; GFI = .87; AGFI = .85). The reliability of the scale was tested through Cronbach Alpha coefficient and it is .97 for the general scale.

2.3. Data Analysis

Some treatments were employed prior to the analysis of the data obtained from the participants. Descriptive analysis was conducted to examine the data accuracy and it was tested whether the missing values took place. Besides, Mahanalobis values were calculated to determine the outlier and univariate and multivariate normality (skewness and kurtosis, Mardia's multivariate normality coefficient and critical ratio value) and multicollinearity were tested. As a result of the conducted analyses, it was seen that the data for each variable were normally distributed among themselves [the values for skewness and kurtosis varied between +1 and -1] (Çokluk et al., 2012), the calculated values for all the data did not meet multivariate normality

assumption [Mardia's multivariate normality coefficient is 61.27 and critical ratio value 7.50>5] (Bentler, 2006). When dataset does not meet multivariate normal distribution assumption, Bootstrap analysis method, which does not require a pre-requisite for multivariate normal distribution assumption, is suggested to be used (Bayram, 2013). Following these treatments; descriptive statistics were employed to reveal the current state. Pearson correlation analysis was conducted to determine the relationships between the variables. Besides, path analysis was conducted to test the validity of the suggested model. Lastly, bootstrap analysis method was conducted to identify the significance level of the mediation effect in the model. SPSS and AMOS statistic package programs were used to analyze the data. The significance level for the research was .05.

3. Findings

Arithmetic mean and standard deviations with regard to students' positive and negative perfectionisms, self-handicapping, self-efficacy and academic achievement and Pearson correlation coefficient values indicating the directions and levels of the relations between the variables are displayed in Table 1.

Table 1. Arithmetic mean and standard deviations for positive and negative perfectionisms, self-handicapping, self-efficacy and academic achievement and Pearson correlation coefficient values

Variables	Range	$\bar{x}$	Sd	1	2	3	4	5
1. Academic achievement	1-4	2.83	.45	1				
2. Self-efficacy	1-5	3.82	.69	.64**	1			
3. Self-handicapping	1-5	2.80	.83	-.66**	-.76**	1		
4. Positive perfectionism	1-4	3.27	.61	.60**	.63**	-.69**	1	
5. Negative perfectionism	1-4	2.28	.74	-.58**	-.59**	.67**	-.52**	1

**p< .01

According to Table 1, there are moderately positive relationships between perceived self-efficacy (r= .64; p< .01) and positive perfectionism levels (r = .60; p<.01) with regard to students' academic achievement (r= .64; p< .01), whereas there are moderately negative relationships between self-handicapping levels (r = -.66; p< .01) and negative perfectionism levels (r = -.58; p< .01) with regard to their academic achievement. It was found that there are largely negative relationships between students' perceived self-efficacy and self-handicapping levels (r = -.76; p< .01) and moderately negative relationships between their perceived self-efficacy and negative perfectionism levels (r = -.59; p< .01), while there are moderately positive relationships between their perceived self-efficacy and positive perfectionism levels (r = .63; p< .01). It was revealed that there are moderately negative relationships between students' self-handicapping levels and positive perfectionism levels (r = -.69; p< .01) and moderately positive relationships between their self-handicapping levels and negative perfectionism levels (r = .67; p< .01). When the arithmetic means for the variables are taken into account, it is seen that they are for students' academic achievement levels ($\bar{x}$ = 2.83), perceived self-efficacy ($\bar{x}$ = 2.83), self-handicapping levels ($\bar{x}$ = 2.80), positive perfectionism levels ($\bar{x}$ = 3.27) and negative perfectionism levels ($\bar{x}$ = 2.28).

The path diagram with the standardized estimated values for the research model including positive and negative perfectionisms, self-handicapping, self-efficacy and academic achievement created based on the literature review are displayed in Fig. 2.

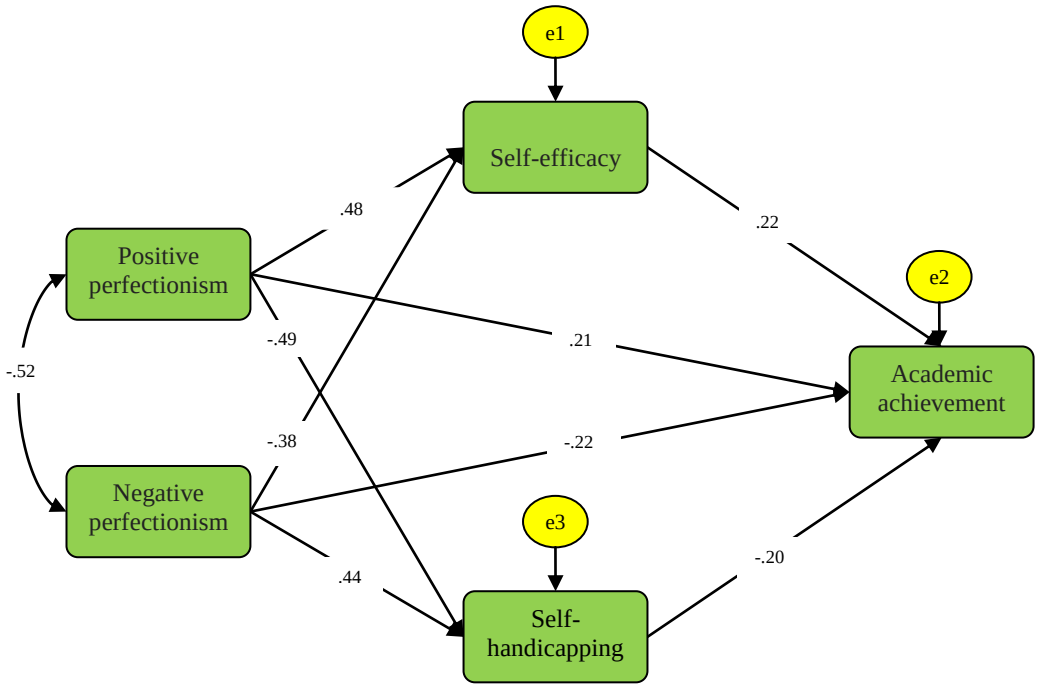

Fig. 2. The analysis results and standardized estimated values for the suggested research model

The fit index values derived from the analysis of the suggested model based on positive and negative perfectionisms, self-handicapping, self-efficacy and academic achievement indicate that they are acceptable values (χ^2/df = 2166.18/1313 = 1.65; RMSEA = .043; CFI = .94; TLI = .93; GFI = .87; AGFI = .85). The standardized values obtained from the analysis of the model are displayed in Table 2.

Table 2. The standardized values obtained from the analysis of the model

Paths between variables			B	β	S.E.	C.R.(t)	P
Self-efficacy	<---	Positive perfectionism	.32	.48	.075	8.22	***
Self-handicapping	<---	Positive perfectionism	.56	.44	.062	8.98	***
Self-handicapping	<---	Positive perfectionism	-.89	-.49	.099	-8.92	***
Self-efficacy	<---	Negative perfectionism	-.34	-.38	.047	-7.21	***
Academic achievement	<---	Self-efficacy	.31	.22	.093	3.27	.001
Academic achievement	<---	Self-handicapping	-.19	-.20	.075	-2.55	.011
Academic achievement	<---	Negative perfectionism	-.28	-.22	.073	-3.75	***
Academic achievement	<---	Positive perfectionism	.36	.21	.112	.324	.001

According to the data in Table 2, the characteristics for students' positive perfectionism directly, positively and significantly affect their perceived self-efficacy (β = .48; p< .05) and academic achievements (β = .21; p< .05), whereas they directly, negatively and significantly affect self-handicapping behaviors (β = -.49; p< .05). The characteristics for students' negative perfectionism directly, negatively and significantly affect their perceived self-efficacy (β = -.38; p< .05) and academic achievements (β = -.22; p< .05), while they directly, positively and significantly affect their self-handicapping behaviors (β = .44; p< .05). Students' perceived self-efficacy directly, positively and significantly influences their academic achievements (β = .22; p< .05), whereas self-handicapping behaviors directly, negatively and significantly affect their academic achievements (β = -.20; p< .05). Based on these findings, it is understood that the

hypothesizes of the research including H1, H_2, H_3, H_4, H_5, H_6, H_7, H_8 were accepted. Besides, the characteristics of students' positive and negative perfectionisms account for 58 % of perceived self-efficacy variance and 68% of self-handicapping variance. It was found that their positive and negative perfectionisms account for 54 % of self-efficacy, self-handicapping and academic achievement variance.

Bootstrap analysis was conducted to examine the significance of the mediation effects in the suggested model. In this context, the model was re-analyzed in 95 % confidence interval through protected error and corrected bootstrap method by determining the sampling size as 1000, which is indeed 350. They were analyzed through AMOS statistic package program. The characteristics of students' negative perfectionism (Indirect effect = -.17 [-.26; -.09) indirectly, negatively and significantly influence their academic achievements through self-efficacy and self-handicapping, whereas the characteristics of their positive perfectionism (Indirect effect = .20 [.11; .30]) indirectly, positively and significantly influence their academic achievements through self-efficacy and self-handicapping. Based on these findings, it is understood that the hypothesizes for H_8 and H_9 were accepted.

4. Discussion and Conclusion

This research aimed at investigating the relationships between positive and negative perfectionisms, self-handicapping, self-efficacy and academic achievement. In this context with this purpose, an extensive literature review was conducted and a model was suggested. Structural equation model was used to test the model based on the data derived from the research. It was understood that the model in its current form was accepted.

As a result of the research data, it was seen that positive perfectionism has a significant positive effect on perceived self-efficacy and academic achievement in contrast to the significant negative effect on self-handicapping. This result means that those students who are inclined to have positive perfectionism, experience more perceived self-efficacy and academic achievement and less self-handicapping behaviors. It is known that positive perfectionist students have higher motivation and intrinsic control focus to reach the high standards they set for themselves (Frost et al., 1990). The fact that students are highly motivated, can enable them to be successful. When the recent researches conducted in this scope are examined, it is seen that those positive perfectionist students prefer solving more complex questions compared with those negative perfectionist students when they are given questions classified from simple questions to complex ones (Stoeber et al., 2008). This result revealed that positive perfectionist students have higher motivation levels and more beliefs in their self-efficacy to achieve an extremely difficult goal. It was stated in the study conducted by Stoeber et al. (2008) that positive perfectionist people are more optimistic about their competences. Besides, the reason for recurred successful performance depends on the increase in one's belief in perceived self-efficacy. A variety of different researches indicate that those positive perfectionist people employ better strategies to overcome stressful cases and get higher academic achievement (Cheng, 2001; Rice, Slaney, 2002; Nounopoulos et al., 2006). According to Kottman (2000), these people do not experience excessive anxiety to attain high standards and are not discouraged when they do not reach the aims they set. On the contrary, they are more motivated to work hard and rationally. Haase et al. (2002) argued that these people can change their aims when they do not attain the aims they have set. This indicates that these people are flexible and have high self-regulation skills. In this regard, it is an expected result for them not to need to use strategies for self-handicapping.

It was found in the current research that negative perfectionism has a significant negative effect on perceived self-efficacy and academic achievement and a significant positive effect on self-handicapping. It can be inferred from this result that those students with a sense of high negative perfectionism, have low perceived self-efficacy and academic achievement and are high self-handicappers. It is known that these students are inclined to set unrealistic aims beyond their capacities and constantly experience fear and anxiety to make mistakes. The fact that they have standards beyond their capacities and do not have knowledge, ability and skills to reach those standards, can negatively affect their beliefs in their capacities and academic achievements. Besides, they can exhibit more self-handicapping behaviors to protect their self-esteem and not to be perceived as untalented and unskillful. The previous researches support this result (Ram, 2005; Shaheen, 2013; Lotar, 2005). As the negative perfectionist people focus on fear of failure, their

motivations lessens and their anxiety increases, therefore, they delay or avoid their works they are required to fulfill (Bieling et al., 2004; Slaney, Ashby, 1996; Stoeber, Otto, 2006; Bieling et al., 2003). It is seen in the research conducted by Öner-Sünkür et al. (2013) that the negative perfectionist students' undertaking academic risk is low. All these results help us understand why these students' perceived self-efficacy and academic achievements are at low level. It was found in the study conducted by Ellis and Knaus (1977) that the most important predictors for self-handicapping in academic field are lack of self-confidence and anxiety level for the works to be fulfilled. It is inevitable for these students to face negative results when they are considered to act in apprehensive manner including fear and anxiety, and be constantly doubtful about themselves. It can be argued that they exhibit self-handicapping behaviors to conceal the negative results stemming from themselves, which can cause to jeopardize their self-esteem.

Another important result derived from the current research is that perceived self-efficacy positively and significantly affects academic achievement, while self-handicapping negatively and significantly affects academic achievement. Abedini et al. (2010) state that the people with a high sense of perceived self-efficacy use more cognitive and meta-cognitive strategies, and have a lower exam anxiety, thereby attaining higher levels in academic achievement. Self-efficacy is an important motivational construct to influence individual preferences, purposes, emotional reactions, efforts and determinations (Stajkovic, Luthans, 1998). In this regard, it is an expected result for the students with a high sense of perceived self-efficacy to be successful in academic sense. It was found in the research implemented by Sahranç (2011) that the people who heavily use self-handicapping strategies, experience more depression, anxiety and stress. It was indicated in the research conducted by Zuckerman et al. (1998) that self-handicapping behaviors negatively affect one's well-being. Urdan and Midgley (2001) revealed that the students who exhibit self-handicapping behaviors at schools do not make enough effort, do not seek help when it is needed, avoid taking risks and give up when they encounter a difficult situation. It was found in the research conducted by Zuckerman et. al. (1998) and Garcia (1995) that those who use self-handicapping strategies have lower performance, poor working habits and repetition strategies, a sense of low self-efficacy and low skills to manage time compared with those who do not use self-handicapping strategies. All these results give us hints about the reasons why those who heavily use self-handicapping strategies display poor academic achievement.

It was seen in the present research that self-efficacy and self-handicapping have a mediation role in the relationship between positive perfectionism and academic achievement. The results of the analysis indicate that this role is partial. Positive perfectionism has a direct effect and indirect effect on academic achievement through perceived self-efficacy and self-handicapping. That is, it can be argued that students' positive beliefs in their self-efficacy are affected by their setting realistic aims, being highly motivated and happy with their achievements and changing their aims according to their positions when it is required. Besides, these students do not need to employ self-handicapping behaviors. All these factors can enable them to be successful in academic sense.

Another striking result obtained from the research is that self-efficacy and self-handicapping have a partial mediation role in the relationship between negative perfectionism and academic achievement. Negative perfectionism has a direct effect and an indirect effect on academic achievement. Based on this result, it can be claimed that those students who have unrealistic and unattainable aims and standards, constant fear of being unsuccessful and criticized by others, are not satisfied with the achievements they attain, can be suspicious about their potentials and employ self-handicapping strategy to protect their psychological health against these negative outcomes and as a result, can be unsuccessful in academic sense.

Lastly, positive and negative perfectionism account for 58 % of perceived self-efficacy variance, 68 % of self-handicapping variance. It was revealed that positive and negative perfectionism, self-efficacy and self-handicapping account for 54 % of academic achievement variance.

All these results indicate that positive and negative perfectionism have direct and indirect significant effects on academic achievement. In this respect, it can be suggested that parents and teachers should struggle to develop the characteristics for students' positive perfectionism and decrease their characteristics for negative perfectionism.

This research has several limitations. First of all, this study is limited with the perceptions of the students studying at the faculty of education. This case is thought to restrict the generalization

of the results derived from this research. Secondly, it is impossible to make causal inferences as this study is a cross-sectional study. Thirdly, as the data were obtained from self-rating scales, this study is limited how the participants understood the items in the scales and whether they were honest while responding the items.

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