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Research Article

# The Relationship of Self-Esteem and Attributional Styles with Self-Handicapping in Primary Schools

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#### **Abstract**

**Background:** Self-esteem, attributional styles, and self-handicapping play key roles in students' individual and social performances. Through determining interactional relations among these factors, parents and schools can plan for improving students' performances.

**Objectives:** Hence, this study aimed to investigate the relationship of self-esteem and attributional styles with self-handicapping among primary school students.

**Methods:** The statistical population of this study comprised of 3rd to 5th grades of primary school students in Zahedan, during the 2015 - 2016 academic year. The research sample consisted of 365 primary students (154 boys and 211 girls) aged 9 to 11 years old who were selected using the random cluster sampling method. The research measurement tools were the Seligman et al. Children's attributional style questionnaire, the rosenberg self-esteem scale, and the Midgley et al. self-handicapping scale. The statistical analyses were performed via SPSS<sub>16</sub> using both descriptive and inferential statistics including the correlation test and the Inter regression analysis.

**Results:** The descriptive results indicated that the means of the pessimistic (9.15), optimistic (9.39) attribution styles, and self-handicapping (7.11) among the students were lower than the nominal mean of the questionnaires, however, the mean of self-esteem (31.20) was higher than the nominal mean score. Furthermore, results showed that self-handicapping was significantly and positively related to the pessimistic attribution style and it was significantly and negatively correlated with self-esteem. In addition, the results of the regression analysis showed that self-handicapping was a negative predictor of self-esteem ( $P \le 0.001$ ) and was a positive predictor of the pessimistic attributional style (P = 0.03).

**Conclusions:** Therefore, given the obtained results, students who had high self-esteem experienced low levels of self-handicapping. Moreover, students who applied the optimistic attributional style had high academic achievement and low self-handicapping. In this regard, methods aimed at improving self-esteem and the optimistic attributional style can be used to promote students' educational statuses.

Keywords: Attributional Styles, Self-Esteem, Self-Handicapping, Student

# 1. Background

Self-handicapping, as one of the barriers to academic achievement, has recently attracted many researchers' attention. Self-handicapping is a defensive strategy in which, even before performing tasks, people create some obstacles to their own success through which they can manipulate their attributions (1). Berglas and Jones defined self-handicapping as behaviors or sets of selected behaviors that allow a person to attribute his/her failure to external factors and his/her success to internal factors (2). Since expecting a high potential from a person in a situation basically leads to doubt and uncertainty regarding the success and leading outcomes; in addition, it can be considered as a threat to the person's self-esteem. When a fail-

ure occurs, self-handicapping tendencies should be evaluated in social situations. In such situations, evaluation criteria are mainly linked to others' functions. Moreover, self-esteem is an essential element of a person's identity. Any important tasks can be regarded as a threat to a person's survival and self-esteem and if that fails, the person's self-perception hurts (3).

The need for self-esteem is one of the basic psychological needs and is among the mental health components in humans. If satisfied in a correct and realistic way, self-esteem leads to positive and effective outcomes in life including self-confidence, self-worth, a sense of ability and power, as well as a sense of competence and adequacy (4). Self-esteem indicates a person's self-satisfaction and his/her sense of self-worth (5). In other words, self-esteem

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refers to how people think of themselves, how much they love themselves, how satisfied they are with their performances, especially with their social performances as well as academic achievements, and how close their ideal selves and true selves are (6). A study demonstrated that people with high self-esteem, compared to people with low self-esteem, were more resistant to life issues and problems. As a result, they were more likely to succeed (7). Cocorada (8), in a study conducted to examine academic self-handicapping among adolescents, concluded that self-esteem was significantly and diversely related to self-handicapping among the adolescents. In addition, life satisfaction is highly dependent on a person's sense of self-worth, such that when a person feels that his/her selfesteem is threatened, he/she attempts to apply a variety of right and wrong behaviors to save himself/herself from the threat (4).

Several studies have shown that the manageable attributional style was associated with positive cognitive, metacognitive, academic achievement, and academic motivation outcomes. Indeed, the attributional process can be observed throughout a person's life. However, it arises particularly in the education process and in the field of formal education, since the way a learner attributes his/her failures and successes to various factors directly affects his/her learning motivations (9). In general, attributional styles refer to an individual's assessment of causes of actions and behaviors (10). The main objective of the attribution theory is examining methods by which people determine various events and attempt to find cause and effect relations between them (11). Weiner is among educational psychologists who tried to link the attribution theory to school learning. In his opinion, most of the reasons that students attribute to their successes or failures can be classified along 3 casual dimensions, i.e. locus of control, stability, and controllability. The dimension of locus of control depends on an individual's behavior (internal) or some external factors. The stability dimension considers causes in terms of their durability. The last dimension, controllability, associates with the control one has over a cause (12). In this regard, students who attribute their academic achievements to their personal efforts (an internal attribution) apply more metacognitive learning strategies and process learning topics more deeply (13). The latest findings of Paul Norman, Sylvie Collins, Mark Conner, Robin Martin, and Jaynie Rance (14), related to attributions, cognitions, and coping strategies, revealed that internal attributions were mainly correlated with problem-focused coping strategies and positive jobrelated psychological results; however, pessimistic attributions were associated with emotion-focused coping strategies and negative job-related psychological results. In another study, Nokelainen, Tirri, and Merenti-Valimaki (15) divided the reasons for success and failure in the educational function into 2 categories, i.e. internal attributions (ability and effort) and external attributions (task difficulty and luck). According to them, while most of the attributions related to effort can be classified as unstable and manageable, most of the attributions associated with ability can be classified as stable and unmanageable. Therefore, students' attributional styles, like optimism, imagining success, and previous performance, affect their learning. Studies have indicated that the stable and global attributional style applied for negative events increased the risk of psychological distress (16) and depression. This decreased self-esteem (17) that can be considered as one of the components of taking responsibility. Furthermore, selfhandicapping and self-esteem were significantly and diversely related (18). The results of Cooley and Pedersen (19) demonstrated that people with low self-esteem who experienced unexpected failures indicated high levels of dysfunction such as self-handicapping. The results of another study carried out by Yavuzer (20) showed that cognitive distortions (self-criticism, self-blame, hopelessness, and preoccupation with danger) and self-esteem were significant predictors of self-handicapping tendencies.

In a study conducted on primary school students, Soric (21) concluded that instead of having a feeling that they were controlled by others, successful students had a sense of determination and autonomy. Accordingly, they attributed their successes to internal and controllable causes. In the same line, Khodayarifard, Brinthaupt, and Anshel (22) revealed that academic achievement was significantly related to students' attributional styles. The results of Gadbois and Sturgeon (23) demonstrated that when making a mistake and/or dealing with a failure in their assignments, unsuccessful students tried to apply the self-handicapping defensive tool, keep others' attitudes positive towards themselves, and protect their ideal identities. The results of Sogh, Karimi, Haghighi, Aryamanesh, Danshjoo, and Ghaderi (24) showed that positive attributional styles were correlated with academic achievement. In addition, their findings indicated that the effect of positive attributions styles on academic achievement prevented the traumatic results of failures. Furthermore, the results of a study carried out by Hasanvand, Rezai Nasab, and Rezai Nasab (25) demonstrated a significant difference between attributional styles applied by successful and unsuccessful students. Moreover, their findings showed that successful students used more positive attributional styles and unsuccessful students applied more negative attributional styles.

# 2. Objectives

Hence, examining the relationship of self-esteem and attributional styles with self-handicapping can be of significant importance and can improve students' performances. Additionally, due to the importance and the broad scope of attributional styles and self-esteem in educational fields, it seems that assessing the role of self-handicapping in predicting attributional styles and self-esteem among students and examining their effects on students' educational achievements at different ages are important. In this regard, the present study sought to answer the following question:

- Are students' attributional styles and self-esteem predictors of self-handicapping among students?

#### 3. Methods

The method of the present study was descriptive with a correlational and cross sectional type. The statistical population of this study included all 3rd grade, 4th grade, and 5th grade primary school students in Zahedan during the 2015 - 2016 academic year. The method of sampling was the random cluster sampling and using the Morgan's the the sample size was determined of 365 individuals (154 boys and 211 girls). In this regard, after obtaining the approval of the Zahedan education department, 2 schools for girls and 2 schools for boys were selected from district 1 and district 2 of Zahedan education department (8 schools). Afterwards, 2 classes were chosen from each school. After going to these schools and explaining how to fill out the questionnaires, the questionnaires were distributed among the sample. All the participants were evaluated using 3 questionnaires on attributional styles, self-esteem, and self-handicapping.

# 3.1. The Children' Attributional Style Questionnaire (CASQ)

To collect the data related to attributional styles, the Children' Attributional Style Questionnaire was used. This questionnaire that was developed by Seligman et al. evaluates pessimistic and optimistic attributional styles. This scale includes 48 items, which are scored 0 or 1 (incorrect or correct). This questionnaire includes 3 subscales, i.e. permanent, pervasive, and personal attributions. Each subscale has a pessimistic part and an optimistic part. This questionnaire can be applied to examine attributional styles among children aged 8 to 13 years old and it was used more than any other questionnaires to measure children's attributional styles (26). This questionnaire was applied in a number of studies and it was shown that it had a high reliability and validity (27). In a study carried out by Nikmanesh and Kazemi (28), using the Cronbach's alpha

coefficient, the internal consistency of the children's attributional style questionnaire was obtained 0.67. In the current study, the Cronbach's alpha coefficient of this questionnaire was 0.67.

## 3.2. The Rosenberg Self-Esteem Scale

This scale was designed by Rosenberg (29) and was originally developed to examine self-esteem among teenagers. This scale includes 10 items, which are scored based on a 4-point Likert-type scale ranging from totally agree 4 to totally disagree 1. Greenberger, Chen, Dmitrieva, and Farruggia (30) indicated that the internal consistency of this scale was 0.84 and the test-retest coefficients of this scale examined within 2 weeks, 5 months, and a year were respectively 0.84, 0.67, and 0.62. Rajabi and Bohlol (31) examined the psychometric properties of this scale and demonstrated that the reliability coefficient of this scale was 0.84. Moreover, they confirmed the construct validity of the scale by using the exploratory factor analysis. In the present study, the Cronbach's alpha coefficient of the Rosenberg Self-Esteem Scale was 0.65.

## 3.3. The Self-Handicapping Scale (Midgley et al.)

This scale includes 6 items that indicate the extent to which students apply self-handicapping strategies. Each of these items demonstrates a strategy through using which students justify their poor academic performances. These items are scored based on a 5-point Likert-type scale ranging from 1 to 5. The reliability and validity of this scale (ranging from 0.70 to 0.89) were examined in a number of studies conducted on various samples (32). This scale was standardized and validated by Shokrkon et al. (33). They showed that the reliability of this scale assessed through applying the Cronbach's alpha coefficient was 0.80. In addition, they demonstrated the significance of its construct validity and face validity with a criterion questionnaire made by these authors.

Descriptive statistics such as percentage, mean, and standard deviation as well as inference statistics such as correlation and regression were used for data analyses, by SPSS<sub>16</sub>.

## 4. Results

A total of 211 girls and 154 boys participated in this study. 42.2% of the boys and 57.8% of the girls were 9 years old, 46.6% of the boys and 31% of the girls were 10 years old, and the other students were 11 years old. 31% of these students were in the 3rd grade, 36.4% of them were in the 4th grade, and 32.6% of them were in the 5th grade.

The results presented in Table 1 demonstrated that the mean of the pessimistic attributional style (9.15) was lower than the mean of the optimistic attributional style (9.39) and both were lower than mean scores of the questionnaires (12). The mean of self-esteem among the students (31.20) was higher than the mean score of the questionnaire (25); however, it was not close to its excellent level (40). Moreover, the mean of self-handicapping among the students (7.11) was lower than the mean score of the questionnaire (18). The 1 sample t-test results show that all the variables means are significantly different from mean of the questionnaires.

To examine the relationship of attributional styles and self-esteem with self-handicapping, the Pearson correlation coefficient was applied, the results of which are presented in Table 2. These results indicated that self-handicapping was significantly and positively related to the pessimistic attributional style and self-handicapping and self-esteem were significantly and diversely correlated.

As presented in Table 3, the results of the regression analysis conducted to predict attributional styles indicated that self-handicapping had a slight role in predicting self-esteem and was able to predict 0.05 of the variance in self-esteem among the students. The value of  $\beta$  demonstrated that 1 unit variation in self-handicapping changed self-esteem among the students by 0.23. The amount of F showed that the regression model was significant at the level of 0.01 (F = 20.19, df = 1, 363, P = 0.01). After that, self-handicapping had a small role in predicting the pessimistic attributional style, such that it was able to predict 0.01 of the variance in the pessimistic attributional style. The value of  $\beta$  demonstrated that one-unit variation in selfhandicapping changed the pessimistic attributional style among the students by 0.11. This regression model was significant at the level of 0.03 (F = 2.15, df = 1, 362, P = 0.03). Durbin Watson test showed that regression method is suitable for this analysis (between 1.5 to 2.5 is suitable).

#### 5. Discussion

The results obtained from the present study revealed that self-handicapping was significantly and positively correlated with the pessimistic attributional style and it was significantly and diversely related to self-esteem. Moreover, the results of the regression analysis indicated that self-handicapping had great roles in predicting self-esteem (0.05) and the pessimistic attributional style (0.01). These findings are consistent with the results of Cocorada (8), Goldsmid and Howie (16), Ledrich and Gana (16), Falatooni et al. (18), Yavuzer (20), Soric (21), Gadbois and Sturgeon (23), Sogh et al. (24), as well as Hasanvand et al. (25).

Cocorada (8), in a study conducted to examine academic self-handicapping among adolescents, concluded that self-esteem was significantly and diversely related to self-handicapping among the adolescents. Studies have indicated that the stable and global attributional style applied for negative events increased the risk of psychological distress (16) and depression. This decreased self-esteem (17) that can be considered as one of the components of taking responsibility. Falatooni et al. (18), in a study entitled "The relationship of self-esteem and goal orientation with self-handicapping among students at Chamran University", concluded that self-handicapping and self-esteem were significantly and diversely related. The results of Cooley and Pedersen (19) demonstrated that people with low selfesteem, who experienced unexpected failures, indicated high levels of dysfunction such as self-handicapping. The results of another study carried out by Yavuzer (20) showed that cognitive distortions (self-criticism, self-blame, hopelessness, and preoccupation with danger) and self-esteem were significant predictors of self-handicapping tendencies.

In a study conducted on primary school students, Soric (21) concluded that successful students had a sense of determination and autonomy. Accordingly, they attributed their successes to internal and controllable causes. In the same line, Khodayarifard et al. (22) revealed that academic achievement was significantly related to students' attributional styles. The results of Gadbois and Sturgeon (23) demonstrated that when making a mistake and/or dealing with a failure in their assignments, unsuccessful students tried to apply the self-handicapping defensive tool, keep others' attitudes positive towards themselves, and protect their ideal identities. The results of Sogh et al. (24) showed that positive attributional styles were correlated with academic achievement. In addition, their findings indicated that the effect of positive attributions styles on academic achievement prevented the traumatic results of failures. Furthermore, the results of a study carried out by Hasanvand et al. (25) demonstrated a significant difference between attributional styles applied by successful and unsuccessful students. Moreover, their findings showed that successful students used more positive attributional styles and unsuccessful students applied more negative attributional styles.

Attributional styles, as habit patterns used in explaining environmental events, can direct a person's state. In this regard, students who usually attribute bad events to internal, stable, and global causes and those who usually explain positive events by external, unstable, and specific causes are probably not motivated. Several studies have shown that the manageable attributional style was associated with positive cognitive, meta-cognitive, academic

Table 1. Means and Standard Deviations of Attributional Styles, Self-Esteem, and Self-Handicapping

Variable	nominal Mean Score of the Questionnaire		SD	T	P Value
Pessimistic attributional style	12	9.15	2.40	15.11	0.001
Optimistic attributional style	12	9.39	2.76	15.93	0.001
Self-esteem	25	31.20	4.76	24.85	0.001
Self-handicapping	18	7.11	2.60	57.79	0.001

 Table 2.
 Correlation Coefficients of Attributional Styles and Self-Esteem with Self-Handicapping

Variable	Optimistic Attributional Style	Pessimistic Attributional Style	Self-Esteem
Self- handicapping	0.01	0.11	-0.23
P Value	0.07	0.02	0.001

achievement, and academic motivation outcomes. Hence, students who attribute their academic achievements to their personal efforts (an internal attribution) apply more meta-cognitive learning strategies and process learning topics more deeply.

Among limitations of the current study, the fact that the sample was limited to students studying in Zahedan can be mentioned. Therefore, caution should be exercised when generalizing the results obtained from this study. Therefore, the obtained results laid emphasis on the importance of training programs along with providing feedbacks aimed at improving self-esteem and changing attributions among students. Moreover, these programs can increase teachers' awareness of the methods students determine, events and causes of their failures, as well as successes. Furthermore, since schools are the best institutions to improve the mentioned variables in students, it is highly recommended that schools create accountability among students, provide individual and collective encouragements, as well as give them scores based on their efforts. In this regard, more attention should be paid to students' activities in schools and their roles should be highlighted in the decision making process, since students can improve their senses of responsibility through taking part in such activities. In other hands, this enhances their senses of belonging, security, and self-esteem.

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#### Footnotes

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## References

- Uysal A, Lu Q. Self-handicapping and pain catastrophizing. Pers Individ Dif. 2010;49(5):502-5. doi:10.1016/j.paid.2010.05.012.
- Alter AI, Forgas JP. On being happy but fearing failure: The effects of mood on self-handicapping strategies. J Exp Soc Psychol. 2007;43(6):947-54. doi:10.1016/j.jesp.2006.07.009.
- Raeisi F. The Study Academic Self-handicapping factors affecting high school students in Isfahan Cityin In the year 83-82. Res Coun Educ Org. 2004.
- Asgharipoor N, Yeke Yazdandost R, Zargar F. The effectiveness of cognitive-behavioral group therapy on self-esteem, depression and attribution styles in college students [In Persian]. Res Clin Psychol Couns. 2012;2(1):39–52.
- Sadrossadat J, Shams H. Self-esteem in people with special needs. first ed. Tehran: University of Social Welfare and Rehabilitation Sciences; 2001.
- Bray BM. The influence of academic achievement on a college student's self-esteem 2007. Available from: http://clearinghouse. missouriwestern.edu/manuscripts/225.asp?logon=&code=.
- Alves-Martins M, Peixoto F, Gouveia-Pereira M, Amaral V, Pedro I. Selfesteem and academic achievement among adolescents. *Educ Psychol.* 2002;22(1):51-62. doi:10.1080/01443410120101242.
- Cocorada E. Academic Self-handicapping and their correlates in adolescence. Bull Transilvania Univ Brasov. 2011;4(53):57-64.
- Bastable SB. Nurse as educator, principles of teaching and learning for nursing practice. Boston: Jones and Bartlett Publishers; 2002. p. 2.
- Galvin KM, Cooper PJ. Making connection: Readings in relational communication. Los Angeles: Roxbury; 2006.
- Ilgen MA, Hutchison KE. A history of major depressive disorder and the response to stress. J Affect Disord. 2005;86(2-3):143-50. doi: 10.1016/j.jad.2005.01.010. [PubMed: 15935233].
- Astypk D. In: Motivation to learn (from Theory to Practice). Hasanzade R, Amoie N, editors. Tehran: The world of research; 1995.
- Perry RP, Hladkyj S, Pekrun RH, Pelletier ST. Academic control and action control in the achievement of college students: A longitudinal field study. *J Educ Psychol.* 2001;93(4):776–89. doi: 10.1037/0022-0663.93.4.776.

Table 3. Results of the Regression Analysis Conducted to Predict Attributional Styles and Self-Esteem

Predictor Variable	Criterion Variable	SE	Adjusted R Square	Beta	T	P Value
Self-handicapping	Pessimistic attributional style	0.73	0.01	0.01	3.66	0.03
Self-handicapping	Self-esteem	0.65	0.05	-0.23	-4.49	0.001

- Norman P, Collins S, Conner M, Martin R, Rance J. Attributions, cognitions, and coping styles: Teleworkers' reactions to work-related problems1. *J Appl Soc Psychol*. 1995;25(2):117–28. doi: 10.1111/j.1559-1816.1995.tb01587.x.
- Nokelainen P, Tirri K, Merenti-Välimäki HL. Investigating the influence of attribution styles on the development of mathematical talent. *Gift Child Q.* 2016;51(1):64–81. doi:10.1177/0016986206296659.
- Goldsmid S, Howie P. Mediating and moderating role of attributional style in the association between victimisation and wellbeing. *Emotion Behav Diff.* 2013;18(4):423–34. doi: 10.1080/13632752.2013.803682.
- Ledrich J, Gana K. Relationship between attributional style, perceived control, self-esteem, and depressive mood in a nonclinical sample: A structural equation-modelling approach. Psychol Psychother Theor Reas Pract. 2013;86(4):413-30. doi: 10.1111/j.2044-8341.2012.02067.x.
- 18. Falatooni F, Ghasemali M, Salari Koohfini Z. The relationship between self-esteem and goal orientations with self- handicapping in Chamran University students. *J Sci Today World*. 2014;3(11):537–42.
- Cooley PD, Pedersen SJ. Using self-handicaps to protect self-esteem: Young peoples' responses to evaluative threat in sport. *Universal J Psychol.* 2014;2(2):95-102. doi: 10.13189/ujp.2014.020207.
- Yavuzer Y. Investigating the Relationship between Self-Handicapping Tendencies, Self-Esteem and Cognitive Distortions. Educ Sci Theor Pract. 2015;15(4):879-90. doi: 10.12738/estp.2015.4.2434.
- Sorić I. Regulatory Styles, Causal Attributions and Academic Achievement. Sch Psychol Int. 2009;30(4):403–20. doi: 10.1177/0143034309106946.
- Khodayarifard M, Brinthaupt TM, Anshel MH. Relationships of parents' and child's general attributional styles to academic performance. Soc Psychol Educ. 2010;13(3):351–65. doi:10.1007/s11218-010-9114-2.
- Gadbois SA, Sturgeon RD. Academic self-handicapping: relationships with learning specific and general self-perceptions and academic performance over time. *Br J Educ Psychol.* 2011;81(Pt 2):207–22. doi: 10.1348/000709910X522186. [PubMed: 21542815].

- Sogh MT, Karimi A, Haghighi H, Aryamanesh S, Danshjoo MJ, Ghaderi F. Examining the relationship between attribution style and personality characteristics and academic performance of Bandar Abbas high school students. J Life Sci Biomed. 2013;3(3):203–8.
- Hasanvand B, Rezai Nasab A, Rezai Nasab M. The comparison of attribution styles and emotional intelligence among the successful and unsuccessful female high school students in Ahvaz, controlling for the intelligence. *Int Letter Soc Hum Sci.* 2014;37:57–70. doi: 10.18052/www.scipress.com/ILSHS.37.57.
- Seligman MEP, Reivich K, Jaycox L, Gillham J. The Optimistic Child. New York: Houghton Mifflin; 1995.
- 27. Thompson M, Kaslow NJ, Weiss B, Nolen-Hoeksema S. Children's attributional style questionnaire-revised: Psychometric examination. *Psychol Assess.* 1998;**10**(2):166–70. doi: 10.1037/1040-3590.10.2.166.
- Nikmanesh Z, Kazemi Y. An examination of effects of optimism by storytelling on attribution styles of children [In Persian]. Res Psychol Health. 2008;2(3):5-13.
- Rosenberg M. Society and the adolescent self-image. Princeton, NJ: Princeton University Press; 1965.
- Greenberger E, Chen C, Dmitrieva J, Farruggia SP. Item-wording and the dimensionality of the Rosenberg Self-Esteem Scale: do they matter? *Pers Individ Dif.* 2003;35(6):1241–54. doi: 10.1016/s0191-8869(02)00331-8.
- Rajabi GH, Bohlul N. Assessment of validity and reliability of Rosenberg's self-esteem scale in students of grad one in Chamran university [In Persian]. Educ Psychol Res. 2007;1(2):33-48.
- Midgley C, Kaplan A, Middleton M. Performance-approach goals: Good for what, for whom, under what circumstances, and at what cost? [Educ Psychol. 2001;93(1):77-86. doi: 10.1037/0022-0663.93.1.77.
- 33. Shokrkon H, Hashmai Shaikh Shabani SA, Najaryan B. Investigate the relationship between the antecedents and consequences of the choice of self-handicapping education and its relationship with high school students in Ahwaz. J Psychol Educ Sci. 2006;3(12):77–100.