

Relationship of dispositional mindfulness, self-destruction and self-criticism in academic performance of boy students

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Abstract

The aim of this research was to investigate the relationship among dispositional mindfulness, self-destruction and self-criticism in academic performance of boy students. In a descriptive-correlation study, 205 high school students from schools of Ahar city were selected by cluster sampling method. The GPA, Freiburg mindfulness inventory, The Levels of Self-Criticism Scale and Depressive Experiences Questionnaire (DEQ) were used for data collecting. The results showed that self-criticism and self-destruction are negative predictors of academic performance, and dispositional mindfulness is a positive predictor of academic performance. As well as, the comparative self-criticism and internalized self-criticism are negative predictors of academic performance. According to these results, it can be concluded that dispositional mindfulness, self-destruction and self-criticism are important determinants of academic performance. Therefore, the use

of MBSR and MBCT programs are recommended to improve the academic performance of students.

Key words: Academic performance, Dispositional mindfulness, Self-destruction, Self-criticism

Introduction

Academic performance is doing something to obtain a desirable outcome, or success in a skill or group of information. Academic performance refers to the amount of individual school learning that is measured through various tests such as mathematics, and dictation. In general, academic performance refers to the success of students in academic subjects. (McCloskey, 2015). There are a range of factors affecting the learning and academic performance of students; thus, identifying these factors and solving the problems and failures of the educational system is very important (Pellerone et al., 2017a; Pellerone et al., 2017b). On the other hand, it is impossible to understand the academic performance and the ways to improve it, regardless of ego. However, research related to academic performance does not show awareness of the role of ego related structures, such as self-criticism, self-destruction, compassion and mindfulness.

Awareness means being aware of all the feelings, perceptions and memories, that occur at any given time. Humans spend most of their life in a state of consciousness-awakening. Consciousness includes awareness of both consciousness and content (Sternberg, 2008, Heshmati, et. al. 2017a, Heshmati, et. al. 2017b, Heshmati, et. al. 2017c). The mind always focuses on different thoughts simultaneously. This cognitive activity is known as the mind wandering (Davidson, 2005). Beauchemin, Hutchins, & Patterson, (2008) state that awareness is a state of consciousness that focuses on the inner and outer phenomena that occur in that moment. Being alert

can enhance the initial recognition of symptoms of a problem, and the use of these skills is likely to be effective in preventing the problem (Napoli, Krech, & Holley, 2005, Dane, 2010). The benefits of vigilant attention include monitoring their interaction with the environment, remembering their previous reservations, and finally, controlling and compiling future plans (Sternberg, 2008). According to these definitions, the greater the level of consciousness of the individual in learning, the more successful the learning will be. Meiklejohn et al. (2012) concluded that mindfulness training has a wide range of cognitive, social and psychological benefits for both elementary and high school students. These benefits include improved work memory, attention, academic skills, social skills, emotional regulation and self-esteem, as well as self-reporting improvements in the creation and reduction of anxiety, stress and fatigue. However, there are also studies that did not find a significant relationship between mindfulness and academic self-efficacy, but they showed that there was a significant relationship between mindfulness and academic stress (Brausch, 2011). In one study, it was shown that mindfulness affects the academic achievement of students. As a result, the academic achievement of students with high level of mindfulness was significantly higher than those with low level of mindfulness (Mohtashemi, Faraghadani and Ganji, 2013). Other research has shown that there is a significant but weak relationship between students' mindfulness and their graduate ending grade: in particular, the literature shows that the components of mindfulness, acting with awareness, and non-judging were positive predictors of academic achievement, while the component of observation had a negative relationship with academic achievement. Research has also shown that mindfulness indirectly affects students' progress through influencing stress, self-efficacy and other variables (Teodorczuk, 2013).

Another variable which can influence academic performance and is examined in this study is self-destruction. Kelly, & Drabman (1977), defined self-destruction as the tendency to behave in a way that increases the probability of experiencing

negative results and reduces the probability of earning future success. This attribute (self-destruction) can be consistent with characters of self-defeating. In other words, failing patterns are a durable set of irregular and inclusive behaviors whose negative and long-term psychological consequences overcome short-term and immediate benefits (Baumeister, & Scher, 1998). These behaviors are related to a self-defeating portrait and self-sacrificial interpersonal style (Hewitt, & Flett, 1991). Self-destruction, as it is supposed to be, is not entirely clear, but its manifestations can be considered on a continuum and subsequently on other human behaviors; on the one hand (on the other side of the continuum), care is taken fully and in on the other hand, those tendencies are severely self-destructive and at the end of that is suicide (Turp, 2002). These tendencies are attempts to moderate emotional, cognitive or social experiences and with various forms of mental disorders, such as depression, anxiety and external disorders (Iacolino et al., 2017; Lovaas, & Simmons, 1969; Pellerone, Tomaselo & Migliorisi, 2017). Therefore, it can be expected that self-harm caused by getting a negative result and a failure in education will drop academic performance in students (Pellerone et al., 2017c). In the context of self-destructive tendencies, although there is a clear distinction between direct and indirect self-destructive tendencies, all these tendencies have common elements and there are attempts to moderate emotional, cognitive or social experiences (Lovaas, & Simmons, 1969).

Self-criticism is defined as having high expectations of oneself and trying to progress. As the third most influential variable in academic performance; self-sacrificing individuals are very vulnerable when faced with obstacles to achieving their goals (Gilbert, & Procter, 2006). Self-criticism based on the degree of internalization of the standard of action is placed on a continuum; at the end of this continuum, there is a kind of self-criticism that relies on external standards, and at the other end it is a kind of self-criticism that relies on external standards. Comparative self-critique is defined as a negative view of oneself, because of its comparison with others. At this level, the focus is on inappropriate comparisons

with those who are superior, hostile, and critical, and eventually, it leads to discontent and discomfort from exposure and evaluation by others. An internal self-critique is defined as a negative perception of self, due to its comparison with personal and internal standards. Because these standards are very high, their realization is impossible, but this lack of realization from the viewer's own viewpoint is considered to be weakness. High standards do not necessarily lead to a negative view of themselves, instead, a self-critical response to success requires a rejection of the experience of success due to constantly increasing standards. When high personal standards are realized, the self-righteous person is not satisfied and, by imposing higher-level standards, he evaluates his success as defeat. Therefore, the problem is not merely an ideal definition of success, but it also includes the maladaptive answer to success that the person previously defined as success (Mousavi, Ghorbani, and Tabatabaei, 2013). One of the issues that has attracted the attention of psychologists is the study of strict, critical and violent attitudes towards oneself. The history of these issues, at least, refers to Freud's discussion of a violent and punitive superego, which has been referred to in various ways in psychology and is being addressed today under the concepts of self-criticism and perfectionism. Self-criticism can be interpreted as a formidable punitive assessment of oneself, often associated with guilt, feelings of worthlessness, and self-reliance (De Vries, 2011). Abdollahi, FathiAzar and Alaei (2010) in their study of the role of readiness for self-leader learning and critical thinking attitudes in predicting academic performance of students showed that self-concept and critical thinking attitudes positively predict the academic performance. Therefore, students with a high degree of self-criticism are expected to permanently set high standards for their performance and in this case, though he achieves success, he considers it a failure and is never satisfied and ultimately this leads to disappointment and inappropriate academic performance. In general, it seems that students with low academic performance suffered from weakness in consciousness and enjoy self-destruction and self-criticism more. Therefore, the present research

seeks to answer the question of whether the variables of dispositional mindfulness, self-criticism and self-destruction play a role in student's educational progress. Accordingly, in the present study three goals were examined: a) investigating the relationship between dispositional mindfulness and academic performance; b) measuring the relationship between self-criticism and academic performance; c) investigating the relationship between self-destruction and academic performance.

Method

Participants

The research design is a descriptive-correlation study. In this research, the researcher seeks to investigate the relation and the magnitude of the correlation between the variables. The statistical population of the study consisted of all students aged 15 to 18 years old in a high school in Ahar city in the academic year of 2016-2017. In this study, cluster sampling was used. The sampling method was used to select two schools randomly from all the schools in Ahar city. Six classes were randomly selected from these schools. Then, 205 students were randomly selected using these classes.

After selecting the sample, the schools were coordinated and the research questionnaires were completed. The student's choice was placed and, with the guidance of the trained person, they are asked to fill in the questionnaires, and to write down their average score on the top of the questionnaire. Students were asked to read the questions carefully and respond to them according to their characteristics. At the beginning of the questionnaire, an instruction was given in which the ethical considerations of the research on the confidentiality of information, and the consent of association in the research, were described. Thus, only students who were willing to participate in the research were used.

Instruments

Freiburg mindfulness Inventory: This questionnaire was developed by Buchheld et al (2001). The short form of the questionnaire has 14 items, which answers rarely, sometimes, often and always, to questions. Cronbach's alpha coefficient of its short form is 0.86 and correlation coefficient in clinical sample is 0.31 and in the normal sample it is 0.79. Wallach et al. (2003) introduced the psychometric properties of this questionnaire in their research. The results of this study showed that the validity and reliability of all three items were 14 items (with Cronbach's alpha = 0.86), 24 items with Cronbach's alpha (0.89) and 30 items (with Cronbach's alpha = 0.87). The short form of the 24 items of the questionnaire was also translated into French by Trousselard et al. (2010) and reviewed the psychometric properties of the questionnaire. Their research reported a good validity and reliability for this questionnaire (Cronbach's alpha, 0.74).

Depressive Experiences Questionnaire (DEQ; Blatt, D'Afflitti, & Quinlan, 1976): The DEQ consists of 66 items describing experiences frequently reported by depressed individuals. In development of the DEQ, three factors—dependency, self-criticism, and efficacy— were extracted by means of factor analysis. The dependency factor contains primarily externally directed items concerned with feelings of helplessness and weakness, fears of being abandoned, and wishes to be cared for, loved, and protected. The self-criticism factor contains more internally directed concerns such as feelings of inferiority, guilt, and worthlessness, and a sense that one has failed to live up to expectations and standards. The third factor, efficacy, reflects a sense of independence, satisfaction, and confidence about one's resources and capacities. Of the three factors, dependency and self-criticism are correspondent to Blatt's two original concepts (anaclitic depression and introjective depression), while efficacy is considered to have less association with depression.

Levels of self-criticism (LOSC; Thompson & Zuroff, 2004): A 22-item measure ($\alpha=0.86$), assessing two facets of self-criticism: comparative self-criticism (CSC)

and internalized self-criticism (ISC). The CSC consists of 12 items, and it is defined as a negative perspective of the self as compared to others, who are seen as superior and hostile, or critical. The ISC facet, consisting of 10 items, is defined as a negative perspective of the self as compared to internal, personal standards, which does not involve comparing oneself to others, but viewing oneself as deficient. The overall LOSC score was a sum of the ISC and the CSC sub-scales. The 22 LOSC items are assessed using a 7-point Likert scale, with a maximum score of 154. In the present study, participant scores ranged from 50 to 141. To examine extremes of this trait, the top and bottom 25th percentile scorers were selected to represent high versus low self-critics: scores of 50–77 were considered low and 100–141 were considered high. Participants scoring in the middle of this spectrum (scoring 78–99) were considered moderate/middle self critics.

Data analysis

To describe the data obtained from descriptive statistics such as frequency, percentage, mean and standard deviation, for analyzing the obtained data in order to test the hypotheses, multivariate regression and Pearson's correlation test were used in Spss 21. Before using this test, the assumptions as multivariate regression assumptions, the normal distribution of data, the homogeneity of the variance of the residual, and multiple linearity were investigated. K-S tests, the plot of residual values versus the predicted, Durbin-Watson statistics (Value ranging from 1.5 to 2.5 as acceptable) and the inflation factor variance (VIF <5 as acceptable value) were used. All the assumptions were approved.

Results

According to the results most participating people were in the study with 31% of the 16-year-olds. In terms of academic grade average, 36.5% had a score between

18 and 20%, 62% of the subjects had father's education under the diploma and 67% of the subjects had mother's education had undergraduate education.

Table 1 shows the information on the descriptive statistics of the participant in the research.

Table 1. descriptive statistics of subjects

Variables	<i>M</i>	<i>SD</i>
Academic Performance	15.77	2.65
Dispositional Mindfulness	29.57	6.88
Self-Criticism	67.70	4.45
Self-Destruction	31.62	6.22

As it is seen in Table 2, there is a significant relationship between academic performance and self-criticism and self-destruction variables.

Based on this finding, it can be concluded that there is a negative relationship between academic performance and self-criticism ($r = -0.32$; $p < 0.001$), meaning that the level of academic performance reduces with the increase of the self-criticism.

There is also a negative relationship between academic performance and self-destruction ($r = -0.62$; $p < 0.001$), which shows that the degree of academic performance decreases with increasing self-destruction among students. On the other hand, the results showed a significant relationship between academic performance and dispositional mindfulness ($r = -0.62$; $p < 0.05$).

The relationship between this variable is positive which shows that the level of academic performance increases with the increase of the dispositional mindfulness.

Table 2. Results of Pearson's Correlation Coefficient of Academic Performance with Research Variables

	Mindfulness	Self-Criticism	Self-Destruction
Academic Performance	*.233	**-.327	**-.624
P Value	.040	.001	0.001

Table 3 shows the results of Pearson's correlation coefficient for the relationship between academic performance and comparative and internalized self-criticism components.

Based on these findings, we can say that there is a negative relation between academic performance and comparative self-criticism component ($r = -0.39$; $p < 0.001$).

Therefore, with increasing comparative self-criticism, students' academic performance decreases. Also, there is a negative relationship between academic performance and internal self-criticism ($r = -0.35$; $p < 0.001$), this means that with increasing internalized self-criticism, the degree of academic performance of students decreases.

Table 3. Results of Pearson's correlation coefficient of academic Performance with self-criticism components

	Comparative Criticism	Internal Self-Criticism
Academic Performance	**0.391	**0.352
P Value	0.001	0.001

Also, to predict academic performance based on dispositional mindfulness and self-destruction, self-criticism, an enter regression analysis was used, with the results as follows.

Table 4. Results of regression analysis of academic performance in terms of the variables of mindfulness, self-criticism and self-destruction

Variables	R	R ²	B	β	<i>p.</i>
Dispositional Mindfulness	0.23	0.052	0.25	0.23	0.040
Self-Criticism	0.39	0.152	-0.38	-0.32	0.001
Self-Destruction	0.62	0.389	-1.04	-0.62-	0.001

The results of Table 4 show the regression coefficients in a enter way to predict students' academic performance based on the predictive variables of the research. As it can be seen, self-destruction variable has the highest predictive power (39%), which indicates the importance of self-destruction in students' academic ability. This variable is a negative predictor of academic performance with a standardized regression coefficient $\beta = - 0.62$ at level $p < 0.001$. That is, with the increase in one unit in self-destruction, the degree of academic performance is reduced to 0.62 units.

Based on regression coefficients, it can be said that self-criticism variable in the second order is important for predicting academic performance. That is, it has the ability to explain 15% of the variance of academic performance. This variable is a negative predictor of academic performance with a standardized regression coefficient $\beta = - 0.32$ at level $p < 0.001$ at level $p < 0.001$; there is a negative level of academic performance. This means that with an increase in a unit in self-criticism, the degree of academic performance is reduced to 0.32 units.

The dispositional mindfulness variable is also able to predict academic performance. Based on the findings, it can be said that this variable is capable of explaining 11% of the variance of academic performance which is lower than the self-destruction and self-criticism explanatory power. However, the dispositional mindfulness with a standardized regression coefficient equal to 0.23, at level $p < 0.040$ is a positive and significant predictor of academic performance. This means

that by increasing one unit in the dispositional mindfulness, the academic performance increases to 0.23 units.

Table 5. the results of enter regression analysis of academic performance in terms of comparative and internal self-criticism components

Variables	R	R ²	B	β	<i>p.</i>
Comparative Self-Criticism	0.41	0.168	-0.37	-0.35	0.001
Internal Self-Criticism	0.36	0.129	-0.31	-0.29	0.001

The results of Table 5 show the regression coefficients in a enter way to predict students' academic performance based on comparative and internal components. As can be seen, the comparative self-criticism variable compared to internalized self-criticism has potential to be more explanatory (17%), which suggests the importance of comparative self-criticality in students' academic performance.

This variable with a standardized regression coefficient equal to -0.35 at level $p < 0.001$, is the negative and significant predictor of academic performance. This means that by increasing a unit in a comparative self-criticism, the degree of academic performance is reduced to 0.35 units.

Also, the internalized self- criticism variable can explain 13% of student's academic performance variance.

Internalized self- criticism is capable of predicting academic performance and the standardized regression coefficient is equal to $\beta = - 0.29$ at the level $p < 0.001$.

This means that with an increase in one unit within the self-critique, the academic performance is reduced to 0.29 units.

Discussion

The purpose of this study was to investigate the role of dispositional mindfulness, self-criticism, and self-destruction in male students. The results of multiple regression analysis showed that the dispositional mindfulness variable is a significant predictor of academic performance. These results are consistent with Teodorczuk's findings (2013). Mindfulness indirectly affects students' progress through influencing stress, self-efficacy and other variables (Teodorczuk, 2013). Awareness and being aware affects students' progress.

Thus, the number of academic achievement students with higher mindfulness is significantly higher than those with low mindfulness (Mohtashemi, Faraghadani and Ganji, 2013). There is also a significant relationship between awareness and academic stress (Brausch, 2011). Stress leads to a drop in academic performance in students. In the explanation of the present study, it can be said that mindfulness through increasing the presence of the present moment and consequently increasing the power of concentration and reducing distraction can provide the grounds for improving academic performance (Heshmati, 2017, Heshmati & Behjat Avarsin, 2017; Heshmati & Ghorbani, 2017).

From this point of view, people with high mindfulness seem to have high levels of self-love and compassion and do not constantly judge their performance. Self-judgment can have a negative effect on the amount of individual income. A student who has low efficacy and self-confidence endures a more negative emotions. These emotions, such as anxiety, anger, sadness, and stress, reduce their performance and mental ability, resulting in reduced performance and academic success. Therefore, a high level of mindfulness through improving mental health and reducing negative emotions can increase students' academic ability positively (Heshmati, & Ahmadkhanloo, 2017).

The findings showed that there is a relationship between academic performance and self-criticism; in this regard, the results of Pearson's correlation coefficient indicate that there is a significant negative relationship between academic performance and the self-criticism variable. Moreover, the results of multiple regression analysis showed that the self-criticism variable is a significant predictor of academic performance. Furthermore, the results of regression analysis showed that comparative and internalized self-criticism have high potential in predicting male students' academic performance. This result is consistent with the results of Profetto (2003), and Ghanbari et al. (2012). In explaining this finding, it can be said that self-critical individuals are very vulnerable when faced with obstacles to their goals, and are prone to experience depression. It seems that such a process of self-criticism leads to an intense accumulation of anger toward oneself.

In fact, the reason for the depression of people with high self-criticism is the return of anger toward oneself. Such a process will become habitual over time, and the person perceives his anger as a means of resolving the anxiety that results from his own failures, which is completely false.

A student with such characteristics experiences a lot of self-righteous anger as a result of self-criticism when he receives a low mark. This self-righteous self can naturally block the mental processes of an individual and blocking cognitive processes such as attention, concentration, memory, and problem-solving reduces academic ability and academic performance. According to Freud's viewpoint, a high self-criticism root lies in the Super Ego-punisher. Self-criticism reduces the power of the ego, which is the personality's organizing aspect.

Ego's tasks include cognitive aspects such as attention, concentration, memory, problem-solving, and planning, and ego also provides the ideal ways to cope with external and internal threats and reduce mental stress.

Thus, a self-punishing person who steadily monitors Ego's performance can waste energy instead of solving the problem and learning to solve the stress caused by punishment, and the mind will lose its essential part of its functional capacity. Such a situation for a student can lead to a reduction in the capacity for attention, concentration and memory, and other functions of the student, and the academic performance falls.

Regarding the hypothesis of the relationship between academic performance and self-destruction, Pearson's correlation coefficient indicated that there was a significant negative correlation between academic performance and the self-destruction variable.

Also, the results of multiple regression analysis showed that the self-destruction variable is a significant predictor of academic performance. The results of this finding are consistent with the results of studies by Niknam et al. (2010), Stoebar et al. (2008), EbrahimiGhavam (2004), Hewitt and Flett (1991). In explaining this finding, it can be said that the need for high academic performance in students requires high power in the use of mental processes and learning. During the process of self-destruction, the essential part of the mind focuses on solving unsolved problems, and the individual constantly carries out behaviors that make him block. The growing frustrations of these individuals lead to the generation of negative emotions of anger, hatred and anxiety, and cognitive processes rather than solving homework or lessons.

The conflict with the physical and external world is involved in the inner world, and these negative excitations determines the rumination thinkings in subjects which will tend to resolve the tensions caused by these conflicts. Such a process provides grounds for the decline and drop in academic performance, because continuous self-destruction can lead to depression, helplessness and despair; persistent helplessness and frustration lead to disappointment, and this affects

academic motivation and lowers academic performance. Self-destruction is also accompanied by a sense of shame and severe sin.

Conclusion

Based on the findings of this research, it can be concluded that the dispositional mindfulness, through the improvement of intellectual and cognitive processes, leads to improving academic performance, and vice-versa the self-criticism and self-destruction by weakening cognitive processes provide grounds for reducing academic performance in male students. Thus, it can be said that dispositional mindfulness, self-criticism and self-destruction are important determinants of male students' academic performance.

What is remarkable is that, despite the importance of academic performance, moderating factors and its determinants have not been studied much. In particular, their related structures, such as self-discipline and self-indulgence and self-compassion that have been studied in this research, are forgotten by researchers. In the same way that it is clear that academic performance is a part of its function, it is impossible to understand the academic performance and its factors without considering the related structures and without examining the relationship between the performances of the educational environment with self.

The present study showed how academic performance can be significantly predicted by its related structures. One of the techniques that influences the structures associated with self is mindfulness techniques. Therefore, it is recommended that schools use MBSR and MBCT training programs to improve learning and academic performance. The best time to start this technique is elementary school.

This study has some limitations. The sample consists of only boys and high school students, and generalizations to other levels of education and sex of girls as well as

students should be done with caution. Also, Freiburg's tool was used to measure mindfulness, which does not measure the components of mindfulness, and it would be better to consider the components of mindfulness as well.

Based on this, it is suggested that future research should examine the role of related structures in the educational ability of different groups. It is also recommended that structural equation modeling be used to examine the intermediaries between their related structures and academic performance.

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