

Prediction of Academic Burnout Based on Academic Self-Efficacy among Lower Secondary School Students

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Abstract

Introduction: The aim of the present study was to predict academic burnout based on academic self-efficacy among lower secondary school students in Kavar City.

research methodology: This research is applied in terms of purpose, and descriptive-correlational in terms of nature and methodology. The statistical population included all lower secondary school students in Kavar, totaling 2,700 students. Using a multi-stage cluster sampling method, the researcher selected four schools from the lower secondary level, and from each school, two classes were randomly chosen—resulting in a total sample of 240 students. The data collection tools included two questionnaires: the Academic Self-Efficacy Questionnaire and the Academic Burnout Questionnaire. For data analysis, descriptive statistics (mean and standard deviation) and inferential statistics (stepwise regression and Pearson correlation coefficient) were used.

Findings: The findings indicated that students' academic self-efficacy is a significant predictor of academic burnout. Moreover, the dimensions of academic self-efficacy were also found to be significant predictors of students' academic burnout.

Conclusion: According to the research findings, it can be stated that academic self-efficacy is able to predict students' academic burnout. Academic self-efficacy is considered a key factor in students' academic success, which is able to reduce academic burnout, academic failure, apathy, anxiety, and procrastination in students and provide opportunities for academic achievement.

Key Words: Academic Burnout, Academic Self-Efficacy, Students.

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Introduction

Students, as the fundamental pillars of the educational system, play a critical role in achieving its goals. Focusing on this segment of society in both educational and developmental aspects contributes significantly to the flourishing and advancement of the education system. For a long time, the challenge of reducing academic decline or poor performance has been a key concern among education experts, leading to the proposal of various strategies, policies, and interventions aimed at addressing this cultural issue and making optimal use of the country's limited financial and educational resources.

Academic motivation can be defined as a driving and guiding force behind behavior, which directs the intensity and persistence of an individual's efforts. Considering motivation in stimulating, directing, and sustaining students' behavior during the educational process holds particular importance. It refers to why and how students are motivated to engage in different learning situations. Researchers emphasize the necessity of motivation in education due to its strong association with learning new skills, strategies, behaviors, and ultimately, academic success. A decline in academic motivation is considered a major issue in educational systems worldwide, resulting in the loss of significant resources and causing intellectual, cultural, and economic harm to both governments and families (Kayan, 2010).

In addition to academic motivation, the concept of self-efficacy—defined as beliefs about one's competence, skills, and ability to cope with life challenges—plays a crucial role (as cited in Schultz & Schultz, 2012). Academic self-efficacy refers to one's judgment about organizing and executing actions necessary to achieve educational goals (Schunk, 1991; as cited in Yesilyurt, 2013). When individuals perceive high levels of self-efficacy in a specific domain, they tend to set higher goals and are less afraid of failure. Conversely, when self-efficacy is low, individuals may avoid tasks altogether or quickly give up when facing difficulties (Woolfolk, 2001; as cited in Bailey, 2018).

Academic self-efficacy is influenced by various factors, one of which is academic burnout. In recent years, psychological issues have gained more attention than social ones, particularly among students, with variables such as burnout receiving increased scholarly focus. Burnout, especially academic burnout, does not merely lead to economic costs; more critically, it entails hidden psychological and social consequences that, over time, can have broader impacts on society. In the context of learning and academic achievement, research has shown that burnout is associated with negative outcomes such as low academic performance, behavioral problems, dissatisfaction with school, rebellious attitudes, school avoidance, and even dropping out.

Studies have revealed that students often experience boredom or burnout during at least half of their classroom time (Goetz et al., 2007). Despite this, academic burnout remains an overlooked risk factor in many educational systems, including that of Iran. As such, it can be considered a missing link in understanding the roots of declining academic motivation.

In light of the aforementioned issues, the present research seeks to answer the central question: Can academic self-efficacy and academic motivation predict

academic burnout? One of the primary responsibilities of educational systems is to transmit cultural heritage, nurture students' talents, and prepare them for active participation in society. The academic success of students reflects the effectiveness of an educational system in achieving its goals and addressing individual needs. Given students' significant role in society, it is essential to provide them with opportunities for growth and development. Thus, one of the key objectives of education is to support students' holistic development, enabling them to become responsible, efficient, and mentally and physically healthy individuals in both their personal and social lives. Several domestic and foreign studies have been conducted in connection with this research, a few of which will be briefly mentioned.

Asur (2018) investigated the emotional factors of teaching and classroom settings on students' academic burnout. The study found that students who perceived low relevance in classroom activities experienced negative feelings such as stress, anger, and burnout, and rarely felt positive emotions like relief, enjoyment, or interest in school tasks. Templar, Nicolescu, Rheintjes, Gijssels, and Gysbers (2012) conducted a study examining the relationship between positive effort beliefs and academic burnout. The sample consisted of 730 first-year students from a business and economics institute in southern Netherlands, with a mean age of 20. The study employed a correlational design to test a causal model. The findings revealed that positive effort beliefs, consistent with the incremental theory framework, had a negative relationship with burnout, while positive effort beliefs aligned with the innate theory framework showed a positive relationship with burnout.

Artino and Jones (2012) conducted research on the relationship between self-efficacy, academic self-concept, and academic burnout. The sample included 302 undergraduate students (221 men, 78 women, and 3 unreported) from the second and third years of online or virtual courses, aged between 19 and 24. The research utilized a descriptive correlational method. The study concluded that students experiencing burnout reported lower levels of academic self-efficacy, academic self-concept, and perceived control.

Tse, Daniels, Klassen, and Li (2013) examined the relationship between self-efficacy and academic burnout among 405 Canadian and Chinese university students. The study, using a correlational and descriptive approach, found that self-regulated learning self-efficacy had a negative relationship with academic burnout. Low, Ng, Lee, and Ai (2020) found that among secondary school students in Singapore, self-efficacy mediated the effects of parental involvement and expectations in reducing academic burnout in mathematics. Kanous (2020), in a study titled "School-Related Burnout and Students' Coping Strategies," concluded that academic burnout depends on various factors, including monotonous teaching methods, student-centered assignments, teacher and school demands, uniform educational content, a sense of inefficacy, academic emotions, and the inability to manage negative emotions. Frioli et al. (2020) conducted research examining the direct and indirect effects of academic burnout while controlling for age and gender among 210 Italian high school students. The results indicated that academic burnout negatively affected

students' academic success and their participation in teaching and learning activities. Accordingly, this study aims to determine whether academic self-efficacy can serve as a predictor of academic burnout among students.

Research question

Is academic self-efficacy capable of predicting academic burnout?
Are the dimensions of academic self-efficacy capable of predicting academic burnout?

Methodology

The present study is applied in terms of its objective, descriptive in nature, and correlational in method. The statistical population of this study comprised all first-year middle school students in the city of Kavar, totaling 2,700 students. The researcher employed a multi-stage cluster sampling method, selecting four middle schools from the total population. From each selected school, two classes were chosen, resulting in a total of eight classes. Ultimately, 240 students were selected as the study sample. The following questionnaires were used to collect information:

Academic Self-Efficacy Questionnaire: This questionnaire was developed by Morgan and Jinks in 2010. It consists of 30 items and three subscales: Ability, Effort, and Context. The items are rated on a 4-point Likert scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree).

- The **Ability** dimension includes items 2, 6, 10, 11, 14, 16, 18, 19, 21, 25, 26, 27, and 30.
- The **Context** dimension includes items 3, 4, 7, 8, 12, 13, 15, 17, 20, 23, 24, 28, and 29.
- The **Effort** dimension includes items 1, 5, 9, and 22.

The internal consistency of the scale, as reported by the developers using Cronbach's alpha, is 0.82. The Cronbach's alpha coefficients for the three subscales (Ability, Effort, and Context) were reported as 0.78, 0.66, and 0.70, respectively. In a study by Karimzadeh and Mohseni (2006), the validity of this scale was confirmed through factor analysis. Additionally, the reliability coefficients obtained through Cronbach's alpha were reported as 0.76 for overall academic self-efficacy, 0.65 for the Effort subscale, 0.66 for the Ability subscale, and 0.60 for the Context subscale (cited in Moshayekhi Dolat Azad & Mohammadi, 2014).

Academic Burnout Questionnaire: The Academic Burnout Questionnaire is one of the subscales of the Achievement Emotions Questionnaire (Pekrun et al., 2005, 2010). This instrument is designed to measure the level of burnout experienced by students during class and learning activities. The questionnaire consists of 14 items (items 1 to 14 in the current study) rated on a 5-point Likert

scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Data analysis was performed in two stages using **SPSS** software.

1. **Descriptive Statistics:** Frequency distribution tables, mean, and standard deviation were used to describe the data.
2. **Inferential Statistics:** Pearson's correlation coefficient and multiple regression analysis (simultaneous method) were used to test the research hypotheses.

Research Findings

Hypothesis 1: Students' Self-Efficacy Can Predict Academic Burnout.

To examine this hypothesis, multiple regression analysis using the simultaneous method will be employed.

Table 1: Statistical Characteristics of the Regression between Self-Efficacy and Academic Burnout (Simultaneous Method)

Predictor Variable	R	R ²	F	DF	p	β	t	p
Self-Efficacy	0.569	0.324	61.5	2, 257	0.0001	-0.318	-5.5	0.0001
						-0.351	-6.1	0.0001

Based on the results of the regression analysis presented in Table 6-4 ($F(2,257)=61.5, p<0.01$)($F(2, 257) = 61.5, p < 0.01$)($F(2,257)=61.5, p<0.01$), it can be inferred that there is a significant linear relationship between the predictor variable (self-efficacy) and the criterion variable (academic burnout). Given the significance level in the final column ($p < 0.01$), it can be concluded that the beta coefficient for self-efficacy is statistically significant. This indicates that self-efficacy can significantly predict academic burnout. The calculated multiple correlation coefficient (coefficient of determination) is 0.324, which means that 32.4% of the variance in academic burnout is explained by self-efficacy.

Hypothesis 2: The Dimensions of Self-Efficacy Can Predict Students' Academic Burnout.

To examine this hypothesis, multiple regression analysis using the simultaneous method will be employed.

table 2: Statistical characteristics of regression between dimensions of self-efficacy and academic burnout using the simultaneous method

	R	R ²	F	DF	P<	β	T	P<
Ability	0.502	0.252	28.8	256 and 3	0.0001	-0.485	-3.2	0.001
Context						0.212	1.4	0.1
Effort						-0.225	-1.7	0.07

From the results of the regression analysis presented in Table 8-4 $F(3,256)=28.8, p<0.01$ $F(3, 256) = 28.8, p < 0.01$ $F(3,256)=28.8, p<0.01$, it can be inferred that there is a significant linear relationship between the predictor variables (dimensions of self-efficacy) and the criterion variable (academic burnout). Considering the significance level in the last column, it can be concluded that the beta coefficient of the ability component ($p < 0.01$) is statistically significant. This indicates that the ability component can predict academic burnout. The calculated multiple correlation coefficient (coefficient of determination) is 0.252, indicating that 25.2% of the variance in the academic burnout variable is explained by the ability component.

Discussion and conclusion

Students' self-efficacy can predict academic burnout. To examine this hypothesis, multivariate regression was initially used by the simultaneous method. Based on the results of the regression analysis test, it can be inferred that there is a significant linear relationship between the predictor variables of self-efficacy and the criterion variable (academic burnout). Considering the significance level in the last column, it can be concluded that the beta value of self-efficacy is significant ($P < 0.01$). This means that these variables can predict academic burnout. The calculated multiple correlation coefficient (coefficient of determination) is (0.324), indicating that 32.4% of the variance in academic burnout is predicted by self-efficacy. This research is consistent with the studies of Templar (2012), Haghdooost (2021), Abed Chafi (2023), Abdinejad (1402), and Pour Taleb (1401). Students' beliefs about their abilities to perform academic activities are related to academic burnout, and improving academic self-efficacy beliefs in learners can enhance motivation and reduce their academic burnout. A teenager who believes in their ability to learn and achieve favorable results in lessons demonstrates more effort and perseverance in academic matters, as they feel in control of their academic activities. Consequently, they come to believe that they are capable of coping with academic challenges. Given the expectation of being able to learn materials, they approach academic content with enthusiasm, interest, and high engagement, and thus are less likely to experience burnout. In explaining the results of this study, it can be said that students with low levels of self-efficacy believe that any effort and endeavor is futile and unproductive. In contrast, those with high levels of self-efficacy tend to engage more with the task at hand and prefer to carry out the tasks assigned to them adequately. They are willing to change their strategies whenever necessary to achieve their goals.

Conclusion:

According to the research findings, it can be stated that academic self-efficacy is able to predict students' academic burnout. Academic self-efficacy is considered a key factor in students' academic success, which is able to reduce academic burnout, academic failure, apathy, anxiety, and procrastination in students and provide opportunities for academic achievement.

Following the principles of research ethics

Informed consent forms were completed by all subjects in the present study.

Financial sponsor

The costs of the present study were provided by the authors of the article.

Conflicts of interest

According to the authors, the present article does not have any conflict of interest.

References

Abdin Nejad, Fariba; Ghamari, Shakila; & Tahmasebi, Zhina. (2023). Predicting academic burnout based on academic vitality and self-efficacy among students in Sanandaj. *8th International Conference on Psychology, Counseling, and Educational Sciences*, Tehran, 1548294. (in Persian).

Abed Chafi, Marzieh & Rasoulzadeh, Behzad. (2023). Predicting academic burnout based on psychological hardiness, self-efficacy, and school value. *Second National Conference on Psychotherapy in Iran*, Ardabil. (in Persian).

Alai, R.; Alai Kharaim, R.; & Ghadampour, A. (2017). The role of self-efficacy beliefs and achievement motivation in predicting exam anxiety among elementary students with learning disabilities. *Knowledge and Research in Applied Psychology*, 18(3), 109–117. (in Persian).

Fartash, S. (2021). Structural relationships of education and parental goal orientation with motivation, self-concept, and academic self-efficacy of adolescent girls. *Journal of Family and Research*, 18(1), 7–26. (in Persian)

Feist, Jess & Feist, Gregory J. (2002). *Theories of Personality*. Translated by Yahya Seyed Mohammadi (2013), 7th edition, Tehran: Ravan.

Feist, Jess & Feist, Gregory J. (2002). *Theories of Personality*. Translated by Yahya Seyed Mohammadi (2013), 7th edition, Tehran: Ravan.

Ghasemi Harandi, A. & Forouzandeh, A. (2016). The effectiveness of the acceptance and commitment-based approach on self-efficacy and quality of life among orphaned and neglected adolescents in Isfahan. *International Conference on New Approaches in Humanities*. (in Persian)

Haghdoost, Hilda. (2021). Identifying the factors affecting academic burnout among high school students from the perspective of teachers, experts, and students. *Child Mental Health Quarterly*, 6(3), 242–255. (in Persian).

Pour Taleb, Narges. (2022). The relationship between academic self-concept and academic hope with academic burnout among first-year high school girls. *Fifth International Conference on Educational Psychology: Psychological-Educational Interventions*. (in Persian).

Schultz, Duane P., & Schultz, Sydney, Ellen. (2018). *Theories of Personality*. Translated by Yahya Seyed Mohammadi (2012), 22nd edition, Tehran: Virayesh.

Tempelaar, D. T., Niculescu, A., Rienties, B., Gijssels, W. H., & Giesbers, B. (2012). How achievement emotions impact students' decisions for online learning, and what precedes those emotions. *Internet and Higher Education*, 15, 161–169.