



Research Paper

Predicting Academic Vitality Based on Self-Regulation and Academic Identity in Students



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Abstract

The aim of the present study is to predict academic vitality based on self-regulation and academic identity in students. The research method is a descriptive correlational type. The statistical population in this study includes female students in the second year of high school (600 people) studying in the 2017-2018 academic year in Qasr-e-Shirin County. The sampling method is simple random sampling, and the sample size was determined based on the Morgan table as 234 people. The data collection tools were the academic vitality questionnaire, self-regulation questionnaire, and academic identity questionnaire. Correlation and stepwise regression statistical tests were used to analyze the data. The results showed that self-regulation and academic identity are able to predict academic vitality. Considering the importance of the educational system and the attempt to improve the quality of academic vitality education, studying the factors related to academic vitality in the educational system is of great importance. The results of this study show that academic vitality is correlated with self-regulation (0.419) and academic identity (0.350), and self-regulation and academic identity are able to predict academic vitality. Schools can create the necessary mechanisms to pay more attention to academic identity and self-regulation to create the foundations for creating academic vitality. The educational system can use complementary programs in this regard.

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Introduction

The academic period is a stage of life characterized by rapid cognitive and social changes. It constitutes one of the fundamental pillars of the educational system and is also among the most important domains of students' lives, as students spend a substantial portion of their time at school. One of the primary concerns in the field of school psychology is understanding how students strive to cope with academic and school-related challenges (Mega, Ronconi, & De Beni, 2014). The capacity that enhances students' adaptability in the face of adverse conditions, difficulties, and stress is referred to as academic vitality. Academic vitality is an intrinsic force that arises within the individual, reflecting a sense of aliveness and willingness in performing tasks rather than mere obligation. It represents students' ability to successfully confront obstacles in their academic journey (Ranjbar, Ghamari, & Yazdi, 2025). Academic vitality is associated with academic progress and achievement (Yavari, dartaj, & Asadzadeh, 2017).

Vitality is one of the components of mental well-being. When an individual engages in activities spontaneously, they not only avoid feelings of fatigue and despair but also perceive an increase in their energy and strength. Overall, the intrinsic sense of vitality serves as a significant indicator of mental health (Solberg, Hopkins, Ommundsen, & Halvari, 2012). Academic vitality refers to a positive, constructive, and adaptive response to the various challenges and obstacles continuously encountered in the academic domain (Putwain, Connors, Symes, &

Douglas-Osborn, 2012). academic vitality as students' ability to successfully deal with academic challenges (Martin & Marsh, 2008). In essence, academic vitality provides a simple and practical framework for understanding and conceptualizing student well-being within the academic context (Miller, Connolly, & Maguire, 2013). In general, the intrinsic sense of vitality is a meaningful indicator of mental health (Solberg et al., 2012).

Academic vitality is related to several factors, among which academic self-regulation is particularly noteworthy. Self-regulation pertains to the individual's role in the learning process and was first introduced by Bandura in 1967 (Kadivar, 2003). Self-regulation is described as an active and organized process through which individuals can set their learning goals and monitor their cognition, motivation, and behavior (Ranjbar Hashemi, 2024). It is a goal-directed process that helps learners acquire academic skills, including goal-setting, strategy selection, adaptation, and effective control. (Cole, Logan, & Walker, 2011) defined self-regulation as psychological efforts to control internal states, processes, and functions to achieve higher-level goals. Similarly, (Buhrau & Sujana, 2015) defined self-regulation as psychological efforts to manage internal states to attain higher objectives. Research has shown that students with high self-regulation experience satisfactory academic progress and are more motivated to continue their studies (Broadbent & Poon, 2015; Daniela, 2015).

Another factor potentially related to academic vitality is identity. Identity refers to the distinction an individual perceives between themselves and others, consciously experienced and arising from interaction with their social reality. An individual's identity continuously evolves in response to changes in the social environment. Adolescents who confidently recognize their distinctiveness, maintain reasonable stability of opinion, and exhibit integration achieve a sense of complete personal identity (Mollaebrahimlou, Vahedi, Imanzadeh, & Badri, 2025). Graham and Anderson (2008) consider academic identity as a crucial determinant of academic performance and achievement motivation (Graham & Anderson, 2008). Rahiminejad et al. (2012) suggest that academic identity encompasses academic behaviors, a sense of competence, and self-efficacy, and it is also related to the development of general identity (Rahiminezhad, Farahani, Amani, Haddadi, & Zarpour, 2011). Academic identity reflects various competencies, autonomy, purposefulness, self-efficacy beliefs, and the typical emotional experiences of adolescents with classmates and teachers in classroom settings (Roeser & Lau, 2002). Academic identity represents an individual's conscious response to their academic situation, including decisions about studying and the paths to pursue. The presence of such identity fosters motivation and success in academic domains and facilitates overcoming obstacles sequentially (Haji Khayyat, 2003). Vaz and Erikson (2008) proposed four statuses of academic identity: 1) Diffused academic identity, characterized by a lack of

exploration or commitment, often accompanied by procrastination in decisions regarding academic values; 2) Foreclosed academic identity, reflecting commitments adopted from significant others, such as parents, teachers, or peers; 3) Moratorium academic identity, referring to a period of academic uncertainty when students actively explore and evaluate values and goals; 4) Achieved academic identity, indicating a commitment to a set of academic values following a period of exploration (Gazidari, Gholamali Lavassani, & Ejei, 2016; Was, Al-Harthy, Stack-Oden, & Isaacson, 2009).

Several studies have examined factors affecting academic vitality. (Sadri Damirchi, Karimaianpoor, & Jalilan, 2017) demonstrated that perceptions of the learning environment and psychological resilience are important factors associated with students' academic vitality. Yavari et al. (2017) found that educationally fostering hope can enhance academic vitality among female students (Yavari et al., 2017). Hasani Zangbar and Livar Janbi (2017) concluded that training in self-regulated learning strategies improves mathematics learning and reduces students' anxiety (Hassani & Livarjani, 2017). (Jahanian Najafabadi & Fouladchang, 2014) found that conformity orientation indirectly reduces academic vitality through increased expression of negative emotions. Gozidari et al. (2015) showed that academic identity statuses and self-regulated learning strategies could reduce academic procrastination (Gazidari et al., 2016). Shirazi Tehrani (2016) concluded that self-efficacy was the strongest predictor of academic performance, while

metacognitive self-regulation and learning strategies had no significant effect (Shirazitehrani, 2016). Gozidari et al. (2016) found that students with low levels of diffused or moratorium identity exhibited higher academic procrastination (Gazidari et al., 2016). (Moradi, Dehghani Zadeh, & Soleimani Khashab, 2015) revealed that family communication patterns and classroom structure directly influenced students' academic vitality. (Fooladi, Kajbaf, & Ghamarani, 2017) demonstrated that training in academic vitality significantly increased the sense of academic meaning and performance in female students. (Yasaminezhad, Taheri, Golmohammadian, & Ahadi, 2014) found a significant positive relationship between achievement motivation and academic performance in female students.

Overall, these studies highlight the significance of academic vitality and the importance of investigating factors related to it. Accordingly, the present study examines the prediction of academic vitality based on self-regulation and academic identity among students, aiming to assess the roles of self-regulation and academic identity in academic vitality. Therefore, the research question is: Can self-regulation and academic identity predict academic vitality among female secondary school students in Qasr-e Shirin?

Research Methodology

The research employed a descriptive-correlational design. The statistical population consisted of female students

enrolled in the 2017–2018 academic year, specifically second-grade secondary school students ($N = 600$) in Qasr-e Shirin. A simple random sampling method was used, and the sample size was determined to be 234 based on Morgan's table. To collect research data, the study utilized the following questionnaires: the 9-item Academic Vitality Questionnaire by Hossein Chari and Dehghanizadeh (2012), the 63-item Self-Regulation Questionnaire by Miller and Brown (2000), and the 39-item Academic Identity Questionnaire by Arianpour, Hejazi, Ejei, and Lavasani (2017). For data analysis, correlation and stepwise regression tests were employed, and all analyses were conducted using SPSS software.

Finding

To examine the assumptions for conducting regression analysis, the normality of the error terms was assessed using a histogram and a P-P plot, which indicated that the errors were normally distributed. To detect multicollinearity, the tolerance coefficient was used. The results showed that the tolerance values of the predictor variables were all greater than 0.1, indicating no violation of the multicollinearity assumption. To assess the independence of the errors, the Durbin-Watson test was applied, which yielded a statistic of 1.53, indicating that the residuals were independent; therefore, the assumption of no correlation among the errors was accepted. Given that the parametric assumptions were satisfied, Pearson correlation and stepwise regression analyses were employed to analyze the data.

Table 1: Correlation of Academic Vitality with Self-Regulation and Academic Identity

Variable	N	Correlation	Significance	N	Correlation	Significance
Academic Vitality	234	0.419	0.001	234	0.350	0.001

The results indicate that the correlation between academic vitality and self-regulation is 0.419, which is significant at the 0.01 level. Additionally, the correlation between academic vitality and academic identity is 0.350, also significant at the 0.01 level.

To examine the extent to which self-regulation and academic identity can predict academic vitality, stepwise linear regression was employed.

Table 2: Regression Analysis Indices Between Self-Regulation, Academic Identity, and Academic Vitality

Model	Correlation Coefficient (R)	R ²	Adjusted R ²
1 Self-Regulation	0.419	0.175	0.172
2 Self-Regulation, Academic Identity	0.458	0.210	0.203

The results indicate that self-regulation alone explains 17% of the variance in academic vitality. When academic identity is

included, 20% of the variance in academic vitality is explained.

Table 3: Standardized Regression Coefficients and Their Significance Levels

Model	Unstandardized Coefficients (B)	SE	Standardized Coefficients (Beta)	t	Significance (p)
Step 1	Constant	16.92	0.140	–	7.02
	Self-Regulation	0.305	0.020	0.419	7.02
Step 2	Constant	12.69	0.110	–	5.06
	Self-Regulation	0.329	0.022	0.419	5.28
	Academic Identity	0.207	0.017	0.207	3.18

As observed, the Beta value for self-regulation is $\beta = 0.419$, which is significant at the 0.01 level ($p = 0.001$). Therefore, with 99% confidence, it can be concluded that self-regulation is a significant predictor of

academic vitality. Additionally, the Beta value for academic identity is $\beta = 0.207$, also significant at the 0.01 level ($p = 0.001$), indicating that academic identity can predict academic vitality with 99% confidence.

Discussion & Conclusions

Given the importance of the educational system and the efforts to improve the quality of education, examining academic vitality and its related factors is of great significance. Accordingly, this study investigated the prediction of academic vitality based on self-regulation and academic identity in students to clarify the roles of self-regulation and academic identity in fostering academic vitality. The results indicated that academic vitality is correlated with self-regulation ($r = 0.419$) and academic identity ($r = 0.350$), and that both self-regulation and academic identity are significant predictors of academic vitality. These findings are consistent with the research of (Alizadeh, Birgani, & Yailaq, 2023; Khoshab, Towhidi, & Tashk, 2020), which also reported a relationship between self-regulation and academic vitality.

As previous studies have shown, academic vitality is associated with academic progress and achievement (Yavari et al., 2017) and is considered a component of mental well-being. Academic vitality provides a simple and effective means for understanding and conceptualizing students' well-being within the academic context (Miller et al., 2013), and its development should be reinforced and supported by various factors. Research has demonstrated that students with high levels of

self-regulation experience satisfactory academic progress and are more motivated to continue their studies (Broadbent & Poon, 2015; Daniela, 2015), highlighting the need to facilitate this process in educational settings.

(Cole et al., 2011) defined self-regulation as psychological efforts to control internal states, processes, and functions to achieve higher-level goals. Similarly, (Graham & Anderson, 2008) identified academic identity as a critical factor influencing academic performance and achievement motivation. (Rahiminezhad et al., 2011) proposed that academic identity encompasses academic behaviors, a sense of competence, and self-efficacy, and is also related to the development of general identity. Academic identity reflects various competencies, autonomy, purposefulness, self-efficacy beliefs, and typical emotional experiences of adolescents with classmates and teachers in classroom settings (Roeser & Lau, 2002).

Schools can facilitate the development of academic vitality by implementing mechanisms that enhance students' attention to academic identity and self-regulation. The educational system can also employ complementary programs to support these processes and promote students' academic well-being.

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