





The Mediating Role of Psychological Capital in the Relationship Between Academic Self-Efficacy, Academic Engagement, and Academic Meaningfulness with Academic Achievement Among Students in Wasit, Iraq

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ABSTRACT

Objective: The present study aimed to determine the mediating role of psychological capital in the relationship between academic self-efficacy, academic engagement, and academic meaningfulness with academic achievement.

Methods and Materials: This study is descriptive in nature and employs a correlational-structural equation modeling (SEM) approach. The statistical population consists of middle school students in Wasit, Iraq, during the spring of 2024. A total of 174 students were selected as the sample through convenience sampling. The research instruments included the Psychological Capital Questionnaire (Luthans, 2007), the Academic Self-Efficacy Questionnaire (Midgley et al., 2000), the Academic Engagement Questionnaire (Fredricks et al., 2004), the Academic Meaningfulness Questionnaire (Henderson-King & Smith, 2006), and the Academic Achievement Questionnaire (Wells, 2010). The collected data were analyzed using Pearson correlation and structural equation modeling through SPSS 22 and AMOS 19 software.

Findings: The results indicated a significant and positive direct relationship between academic self-efficacy, academic engagement, academic meaningfulness, and psychological capital with academic achievement ($p < .01$). Additionally, the relationship between academic self-efficacy, academic engagement, and academic meaningfulness with psychological capital was also found to be significantly positive and direct ($p < .01$). Furthermore, the results of structural equation modeling demonstrated that psychological capital mediates the relationship between academic self-efficacy, academic engagement, and academic meaningfulness with academic achievement ($p < .01$).

Conclusion: Therefore, given the significant role of these variables in students' academic achievement, school administrators and policymakers in Iraq should consider these important findings.

Keywords: Psychological capital, academic self-efficacy, academic engagement, academic meaningfulness, academic achievement, Wasit, Iraq

1. Introduction

One of the fundamental objectives and responsibilities of the education system is to create the conditions necessary for the comprehensive development of individuals and to cultivate healthy, efficient, and responsible individuals capable of fulfilling roles in both their personal and social lives (Amiri & El Karfa, 2023). Furthermore, in today's world, "education" is considered an essential aspect of life. Consequently, the primary goal of academic education is to enhance students' academic performance and ultimately improve their academic achievement. Modern educational theories, while emphasizing individual differences, assert that learners should be actively engaged in learning activities, which in turn fosters motivation, a positive self-belief, and improved academic performance and achievement (Hussain & Khan, 2023). Therefore, successful academic achievement throughout a student's educational journey is crucial for attaining a positive academic trajectory in later years (Kunnari et al., 2023).

In this regard, academic achievement refers to the acquired or learned ability resulting from educational instruction or the acquired proficiency in academic subjects, which is measured through various methods. In general, the term "academic achievement" denotes the extent of an individual's learning in an academic setting, allowing for an analysis of individual differences and school-related factors within the broader educational system (Gholi Zadeh et al., 2023). Academic failure may lead to numerous negative consequences, such as internalizing and externalizing problems throughout a student's life (Zhang et al., 2019). Additionally, in the long run, poor academic achievement reduces access to future employment opportunities (Boffo & Melacarne, 2019). As a result, identifying the antecedents of academic achievement has gained increasing attention from researchers in the field of educational psychology in recent years. It is evident that multiple factors influence students' academic achievement, and researchers and psychologists have continuously sought to understand the causes of individual, attitudinal, and perceptual differences at various levels of academic success (Horst et al., 2007). Among these antecedents, which are examined in the present study, are the

variables of academic self-efficacy, academic engagement, academic meaningfulness, and psychological capital.

Based on studies (Farrokhi, 2023; Gholi Zadeh et al., 2023; Hanham et al., 2021; Huang & Wang, 2023; Meghdad Abid & Mosa Abbas, 2022) academic self-efficacy can be considered a primary predictor of academic achievement. Kirk (2023) defines self-efficacy as an individual's belief in their abilities and competencies to achieve a desired outcome (Kirk, 2023). In this context, one of the key aspects of self-efficacy for students is academic self-efficacy, which represents a critical form of self-efficacy throughout an individual's development and adaptation (Basili et al., 2020). Academic self-efficacy is broadly defined as students' general expectations regarding their learning, which are conceptualized in three components: aptitude, effort, and context. In other words, academic self-efficacy encompasses students' beliefs about their abilities to complete academic tasks (Karimian Poor et al., 2024). Students with high levels of academic self-efficacy experience better academic adaptation and employ more effective learning strategies. In fact, academic self-efficacy plays a facilitative role by influencing various aspects of academic life and helping students navigate academic challenges, ultimately leading to improved academic achievement (Warszawski, 2022).

Additionally, studies (Huang & Wang, 2023; Karami & Zarei Mirk Abad, 2024; Mohkham Kar et al., 2024; Shahraki et al., 2022; Tomaszewski et al., 2024) have all demonstrated that academic engagement is a significant factor related to students' academic achievement. Academic engagement is a motivational construct that reflects a learner's commitment to education and is defined as students' psychological capital, direct effort toward learning, skill acquisition, and willingness to enhance their achievements (Larson et al., 2019). Academic engagement refers to the amount of energy an individual expends on academic activities and the effectiveness and efficiency of those efforts (Wolf, 2023). In another definition, academic engagement is considered the psychological capital of learners, their direct effort in learning and skill acquisition, and their willingness to enhance performance and achievements (Lunn et al., 2021). It consists of three components: absorption (focus and deep immersion in academic activities with a rapid passage of

time), vigor (high levels of energy, enjoyment, interest, and psychological stability while working, along with a willingness to innovate and persist through academic difficulties), and dedication (intense and sustained involvement in academic tasks with a deep sense of attachment) (Mohkham Kar et al., 2024). Students with high academic engagement demonstrate greater enthusiasm for spending time and effort on academic activities, maintain a more positive self-concept and self-efficacy in completing academic tasks, and adopt more adaptive coping strategies when facing academic challenges (Pianta et al., 2022). Consequently, it can be argued that academic engagement leads to improved academic achievement.

Another variable that has attracted researchers' attention concerning students' academic achievement is academic meaningfulness. Multiple studies (Khalili et al., 2022; Mahmoudpour et al., 2020) indicate a significant relationship between academic meaningfulness and academic achievement. Researchers consider academic meaningfulness as a factor contributing to a greater sense of purpose in academic life. Since it is positively associated with performance, academic achievement, and life satisfaction, academic meaningfulness functions as a multidimensional behavioral, cognitive, emotional, and affective variable that enhances academic and personal success (Sadri et al., 2021). Cross-sectional studies suggest that perceptions of the meaning of education vary across generations. For example, a study examining the meaning of education among three age groups—elderly, middle-aged, and young adults—in Finland found that older generations viewed education as a valuable activity, middle-aged individuals saw it as an opportunity and a means to an end, and younger individuals considered it an advantage for employment (Bianca & Barry, 2021). Meaning in life is recognized as a key factor in fostering positive human functioning. Individuals who establish meaningful goals for themselves experience more positive emotional states, which in turn contribute to growth in various aspects of life (Ziegler & Opdenakker, 2018). In this regard, academic meaningfulness, regardless of the specific meaning students attribute to their education, serves as a source of motivation. The more valuable a student perceives their academic experience and considers it essential for creating positive

changes in their future, the higher their motivation for academic success, leading them to strive harder toward their educational goals. Academic meaningfulness is associated with a sense of purpose in academic life, shaping students' cognitive perspectives on education and subsequently influencing their motivation for achievement (Mahmoudpour et al., 2020). Therefore, high academic meaningfulness leads to enhanced academic achievement.

Additionally, psychological capital, as a construct within the field of positive psychology, has garnered significant attention from psychologists and educational researchers. Studies (Adil et al., 2020; Chaudhary & Narad, 2022; Khalili et al., 2022; Kumar et al., 2022; Maleki & Hosseini, 2023; Martínez et al., 2019; Salari Chineh Parvin, 2024) have identified psychological capital as a fundamental factor influencing students. In the present study, psychological capital is examined as a mediating variable. In other words, in addition to investigating the direct relationships between academic self-efficacy, academic engagement, and academic meaningfulness with academic achievement, the present study also explores these relationships indirectly through the mediating role of psychological capital.

Psychological capital is defined as an individual's acquired state or capacity developed over time (Saleem et al., 2022). It originates from postmodern positive psychology and encompasses human strengths and positive behavioral aspects (Kotzé, 2018). Psychological capital consists of four components: self-efficacy, hope, optimism, and resilience (Fatehi et al., 2021). Self-efficacy is defined as an individual's belief in their abilities to achieve success in a specific task (Chen et al., 2023). Hope is a positive motivational state based on an interactional perception of success (Clarence et al., 2021). Optimism is a general positive outlook associated with positive expectations (Jafari & Hakim, 2024). Resilience is defined as the ability to accept reality, hold deep beliefs aligned with strong values, and adapt to significant changes (Toprak et al., 2022). Psychological capital enhances students' meaning in life, sustains their efforts in managing academic stressors, and strengthens their perseverance in achieving academic goals, ultimately contributing to their academic success (Luthans et al., 2008).

Therefore, based on the theoretical and empirical literature reviewed, it can be concluded that given the primary objective of educational systems to cultivate motivated, efficient, and goal-oriented individuals, examining the factors associated with academic achievement and its enhancement is essential. Accordingly, this study aims to answer two key questions:

1. Is there a relationship between academic self-efficacy, academic engagement, academic meaningfulness, psychological capital, and academic achievement?
2. Does psychological capital mediate the relationship between academic self-efficacy, academic engagement, academic meaningfulness, and academic achievement?

2. Methods and Materials

2.1. Study Design and Participants

Since the present study aimed to determine the mediating role of psychological capital in the relationship between academic self-efficacy, academic engagement, and academic meaningfulness with academic achievement, the research method adopted was a descriptive-correlational approach utilizing structural equation modeling (SEM). The statistical population of this study comprised all middle school students in Wasit, Iraq, in 2024. Based on the Krejcie and Morgan (1970) sample size determination table and considering a 95% confidence level, the sample size was set at 190 participants. To control for response rate fluctuations, a total of 200 questionnaires were distributed among students in Wasit using convenience sampling. After data collection, 26 questionnaires were excluded due to incomplete responses, leaving a final sample of 174 questionnaires for analysis.

The inclusion criteria for the study involved providing informed consent to participate, while the exclusion criteria

included incomplete questionnaire responses and unwillingness to continue participation.

2.2. Measures

2.2.1. Psychological Capital

This questionnaire consists of 24 items covering four subscales: hope, resilience, optimism, and self-efficacy, with each subscale containing six items. Responses are rated on a six-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). Items 1–6 measure self-efficacy, items 7–12 assess hope, items 13–18 evaluate resilience, and items 19–24 examine optimism. The overall psychological capital score is obtained by summing the subscale scores. Additionally, items 13, 20, and 23 are reverse-scored. The construct validity of this questionnaire was confirmed with a chi-square ratio of 6.24 and fit indices of RMSEA = 0.08 and CFI = 0.97. The reliability of this instrument, assessed using Cronbach's alpha, was reported as 0.89 (Azimi et al., 2017; Maleki & Hosseini, 2023). In the present study, the Cronbach's alpha reliability coefficient was calculated as 0.913.

2.2.2. Academic Self-Efficacy

This questionnaire was developed by Midgley et al. (2000) and assesses students' beliefs regarding their ability to achieve adequate levels of academic performance. It consists of five items rated on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree), with a total score ranging from 5 to 25. The original study reported a reliability coefficient of 0.78. The validity of the questionnaire was confirmed by subject-matter experts in a study by Saif (2018), with a Cronbach's alpha reliability coefficient of 0.86. Another study by Abbasi et al. (2020) reported a reliability coefficient of 0.82 (Farrokhi, 2023; Meghdad Abid & Mosa Abbas, 2022). In the present study, the reliability of the questionnaire, assessed using Cronbach's alpha, was 0.795.

2.2.3. Academic Engagement

The Standard Academic Engagement Questionnaire was developed by Fredricks et al. (2004) and includes 15 items

covering three dimensions: behavioral engagement, emotional engagement, and cognitive engagement. Responses are rated on a five-point Likert scale ranging from 1 (never) to 5 (always). The total score ranges from 15 to 75. The original study reported a reliability coefficient of 0.86. The validity of this questionnaire was confirmed by Abbasi et al. (2015), with an overall Cronbach's alpha reliability coefficient of 0.66. Another study by Chamani et al. (2017) reported a reliability coefficient of 0.92. The reliability coefficients for cognitive engagement, emotional engagement, behavioral engagement, and the total questionnaire score were reported as 0.81, 0.78, 0.79, and 0.80, respectively (Farrokhi, 2023; Ghodrati et al., 2024; Larson et al., 2019). In the present study, the Cronbach's alpha reliability coefficient was 0.761.

2.2.4. Academic Meaningfulness

This questionnaire was designed by Henderson-King and Smith (2006) and consists of 86 items scored on a five-point Likert scale ranging from 1 to 5. The reliability coefficients reported for the 10 factors by Henderson-King and Smith (2006) were as follows: career (0.87), independence (0.83), future (0.89), learning (0.90), self-growth (0.90), next step (0.77), social connections (0.91), changing the world (0.84), psychological pressure (0.87), and liberation (0.82). In a study, the reliability coefficient was 0.64 (Sadri et al., 2021). In the present study, the Cronbach's alpha reliability coefficient was 0.946.

2.2.5. Academic Achievement

The Academic Achievement Questionnaire was developed by Wells (2010) and includes 39 items rated on a four-point Likert scale from 1 (strongly disagree) to 4 (strongly agree). The total score ranges from 39 to 156, with higher scores indicating greater academic achievement. In the original study, the validity of this instrument was confirmed using factor analysis, and the reliability was reported as 0.87 using Cronbach's alpha. In a study by Adib Haj Bagheri et al. (2015), content validity was confirmed by experts, and the Cronbach's alpha reliability coefficient was calculated as 0.76. Another study reported a reliability coefficient of 0.76 (Ghodrati et al., 2024; Gholi Zadeh et al., 2023). In the present study, the Cronbach's alpha reliability coefficient was 0.817.

2.3. Data Analysis

For data analysis, both descriptive and inferential statistical methods were used accordingly. The descriptive statistics utilized in this study included frequency tables, frequency percentages, mean, and standard deviation. To test the research hypotheses, Pearson correlation coefficient and structural equation modeling were conducted using SPSS 22 and AMOS 19.

3. Findings and Results

Table 1 presents the descriptive statistics (mean, standard deviation, and standard error) of the research variables.

Table 1

Descriptive Statistics of the Research Sample for the Research Variables

No.	Variable	Mean	Standard Error	Standard Deviation
1	Academic Self-Efficacy	18.84	0.312	4.110
2	Academic Engagement	45.86	0.830	10.919
3	Academic Meaningfulness	279.07	3.475	45.712
4	Academic Achievement	86.86	1.304	17.151
5	Psychological Capital	99.16	1.424	18.735

Table 2 presents the correlation coefficients between the research variables.

Table 2

Correlation Coefficients of the Research Variables

Variable	Psychological Capital	Academic Achievement
	r (Correlation) p (Significance)	r (Correlation) p (Significance)
Psychological Capital	—	0.477** (p < 0.01)
Academic Self-Efficacy	0.550** (p < 0.01)	0.406** (p < 0.01)
Academic Engagement	0.360** (p < 0.01)	0.360** (p < 0.01)
Academic Meaningfulness	0.287** (p < 0.01)	0.287** (p < 0.01)

As shown in Table 2, psychological capital, academic self-efficacy, academic engagement, and academic meaningfulness have significant and positive correlations with academic achievement ($p < 0.01$). Additionally, academic self-efficacy, academic engagement, and

academic meaningfulness have significant and positive correlations with psychological capital ($p < 0.01$).

Table 3 presents the results of the mediation model for the role of psychological capital in the relationship between academic self-efficacy, academic engagement, academic meaningfulness, and academic achievement.

Table 3

Results of the Mediation Model for the Role of Psychological Capital in the Relationship Between Academic Self-Efficacy, Academic Engagement, Academic Meaningfulness, and Academic Achievement

Relationship	Direct Effect (Estimate) (p)	Indirect Effect (Confidence Interval)	SE*	C.R.**	p	Mediation Result
Academic Self-Efficacy → Psychological Capital	0.787 (p = 0.001)	0.657 - 1.812	0.242	5.005	0.000	Partial Mediation
Academic Engagement → Psychological Capital	0.568 (p = 0.001)	0.297 - 0.837	0.091	6.234	0.000	Full Mediation
Academic Meaningfulness → Psychological Capital	0.121 (p = 0.001)	0.067 - 0.176	0.022	5.559	0.000	Full Mediation
Academic Self-Efficacy → Academic Achievement	0.805 (p = 0.037)	0.044 - 1.537	0.293	2.744	0.006	Significant Direct Effect
Academic Engagement → Academic Achievement	0.103 (p = 0.460)	-0.175 - 0.404	0.114	0.902	0.367	Non-Significant Direct Effect
Academic Meaningfulness → Academic Achievement	-0.006 (p = 0.922)	-0.071 - 0.063	0.027	-0.210	0.834	Non-Significant Direct Effect
Psychological Capital → Academic Achievement	0.311 (p = 0.002)	0.123 - 0.518	0.086	3.602	0.000	Significant Direct Effect

As shown in Table 3, the direct effect of academic self-efficacy ($\beta = 0.787$, $t = 5.005$, $p < 0.01$), academic engagement ($\beta = 0.568$, $t = 6.234$, $p < 0.01$), and academic meaningfulness ($\beta = 0.121$, $t = 5.559$, $p < 0.01$) on psychological capital was significant. Additionally, the direct effect of academic self-efficacy ($\beta = 0.805$, $t = 2.744$, $p < 0.01$) and psychological capital ($\beta = 0.311$, $t = 3.602$, $p < 0.01$) on academic achievement was significant. However, the direct effect of academic engagement ($\beta = 0.103$, $t = 0.902$, $p > 0.05$) and academic meaningfulness ($\beta = -0.006$, $t = -0.210$, $p > 0.05$) on academic achievement was not significant.

The indirect effect of academic self-efficacy ($\beta = 0.377$, $p = 0.002$), academic engagement ($\beta = 0.177$, $p = 0.002$), and

academic meaningfulness ($\beta = 0.038$, $p = 0.002$) on academic achievement was significant.

Thus, hypothesis stating that psychological capital mediates the relationship between academic self-efficacy, academic engagement, and academic meaningfulness with academic achievement, was confirmed. The results indicate that psychological capital fully mediates the relationship between academic engagement and academic meaningfulness with academic achievement, while it partially mediates the relationship between academic self-efficacy and academic achievement.

4. Discussion and Conclusion

The results of the present study indicated that psychological capital mediates the relationship between academic self-efficacy, academic engagement, academic meaningfulness, and academic achievement. Psychological capital serves as a full mediator in the relationship between academic engagement and academic meaningfulness with academic achievement, whereas it acts as a partial mediator in the relationship between academic self-efficacy and academic achievement. Since no similar studies were found in reputable domestic and international scientific sources, it is not possible to compare these findings with previous research directly. However, the obtained finding regarding the relationship between academic self-efficacy and psychological capital aligns with the prior findings (Kumar et al., 2022; Maleki & Hosseini, 2023); the relationship between academic engagement and psychological capital is consistent with the findings of Martinez et al. (2019); and the relationship between psychological capital and academic achievement supports the prior findings (Adil et al., 2020; Chaudhary & Narad, 2022; Fatehi et al., 2021; Khalili et al., 2022; Salari Chineh Parvin, 2024).

To interpret this finding, it can be stated that having confidence in one's abilities to perform various academic tasks, as well as a sense of competence and efficacy in engaging with learning and cognitive activities at school—such as understanding textbooks, participating in educational activities, and preparing for exams—can enhance positive psychological traits, including perseverance in pursuing academic goals, optimism, the formation of positive cognitive attributions, increased resilience, flexibility, and positive adaptation to challenging academic conditions (Kumar et al., 2022). This process may lead to an increased use of self-regulated learning strategies, including cognitive and metacognitive strategies, to facilitate learning, manage efforts, and enhance academic achievement (Paloş et al., 2020). Thus, it can be concluded that academic self-efficacy plays a significant role in shaping psychological capital.

Additionally, considering that academic engagement is a multidimensional construct encompassing cognitive, motivational, and behavioral dimensions, its cognitive aspect encourages students to employ cognitive and metacognitive strategies during the learning process. The

behavioral aspect enhances effort, persistence, and help-seeking behavior when facing academic tasks. The motivational aspect of academic engagement increases the attractiveness of the learning environment, fostering cognitive engagement in academic activities and protecting students from negative states such as academic fatigue and burnout (Azimi et al., 2017). Therefore, students with high levels of academic engagement are more interested in their studies and dedicate substantial time and effort to assignments, exams, and projects. They actively seek additional resources to understand complex concepts and develop a deeper comprehension. This dedication and commitment inevitably lead to better grades and overall academic success (Borgonovi et al., 2023). Hence, it can be argued that academic engagement contributes to improved academic achievement.

Furthermore, significant differences exist between students who perceive education as meaningful and those who do not. Researchers and psychologists believe that academic meaningfulness fosters feelings of efficacy, control, self-worth, and purpose. When individuals have clear academic and life goals, they experience a sense of efficacy when facing stressful conditions, maintain control over challenging events, and demonstrate resilience in overcoming academic and life obstacles. These factors promote happiness, positive emotions, and overall well-being, ultimately reducing academic burnout and stress-related exhaustion (Sultani Banavandi et al., 2017). Consequently, high academic meaningfulness logically leads to an increase in psychological capital.

On the other hand, students with high psychological capital tend to have a positive outlook on the future, along with strong confidence in their academic abilities. Additionally, when encountering challenging and difficult situations, they demonstrate mastery, creativity, and initiative in overcoming obstacles. Therefore, such individuals exhibit essential competencies and positive academic performance, making it evident that they achieve higher academic success and progress (Samari Safa & Poordel, 2022). In fact, possessing psychological capital enhances students' ability to effectively cope with academic stressors, reduces tension in academic situations, and strengthens their resilience in facing challenges, ultimately

contributing to academic achievement (Mirzaei & Jafari Herandi, 2020). Based on these findings, it can be concluded that academic self-efficacy, academic engagement, and academic meaningfulness are indirectly and positively related to academic achievement through psychological capital.

5. Limitations & Suggestions

Therefore, considering the significant role of these variables in students' academic achievement, school administrators and policymakers in Iraq should take these findings into account. In this regard, it is recommended that educational administrators and curriculum planners focus on fostering academic self-efficacy both in academic and social dimensions. Additionally, they should educate students' families on strategies to enhance academic self-efficacy to support students' academic and social development.

To increase students' academic engagement, teachers, school administrators, families, and educational policymakers should recognize the importance of this variable and implement long-term strategies to enhance it. This could involve designing school curricula in a way that strengthens both individual and environmental factors, ensuring that students do not experience academic disengagement or exhaustion. Accordingly, it is suggested that appropriate educational strategies be developed to enhance academic engagement, taking into account individual differences in personality traits, coping mechanisms, and approaches to overcoming academic challenges.

Moreover, a better understanding of students' perceptions of the meaning of education could provide insight into their motivational and value-oriented tendencies. To improve psychological capital as a means of fostering academic achievement, several recommendations for educational policymakers and planners can be made:

- a) Ensuring the physical and psychological well-being of students (including individual and family mental health);
- b) Encouraging participation in altruistic and voluntary activities;
- c) Teaching students how to enrich their free time;

d) Educating students on improving the quality of interpersonal relationships with family members;

e) Training students on methods for choosing and maintaining healthy friendships.

Like any research, this study has limitations. One of the main limitations is that the study was conducted among middle school students in Wasit, Iraq, in 2024, which limits the generalizability of the findings. Additionally, since the research was conducted using a correlational method, causal interpretations cannot be drawn from the results.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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Authors' Contributions

All authors equally contributed to this article.

References

- Adil, A., Ameer, S., & Ghayas, S. (2020). Impact of academic psychological capital on academic achievement among university undergraduates: Roles of flow and self-handicapping behavior. *PsyCh Journal*, 9(1), 56-66. <https://doi.org/10.1002/pchj.318>

- Amiri, E., & El Karfa, A. (2023). Flourishing of Positive Psychology in Education: 'Emotional Turn' and Measurement Issues. *Journal of Humanities and Social Sciences Studies*, 5(8), 10-18. <https://doi.org/10.32996/jhss.2023.5.8.2>
- Azimi, D., Qadimi, S., Khazan, K., & Dargahi, S. (2017). The role of psychological capital and academic enthusiasm in academic vitality and decision-making procrastination among nursing students. *Center for Studies and Development of Medical Education, Yazd*, 12(3), 143-153. https://www.researchgate.net/publication/336014039_The_Role_of_psychological_capital_and_academic_eagerness_in_predicting_academic_vitality_and_procrastination_in_decision_making_of_nursing_students
- Basili, E., Gomez Plata, M., Paba Barbosa, C., Gerbino, M., Thartori, E., Lunetti, C., & Tamayo Giraldo, G. (2020). Multidimensional scales of perceived self-efficacy (MSPSE): measurement invariance across Italian and Colombian adolescents. *PLoS One*, 15(1). <https://doi.org/10.1371/journal.pone.0227756>
- Bianca, H. C., & Barry, A. F. (2021). Is there something distinctive about psychotherapy clients' dishonesty about self-destructive behaviors? *Counselling Psychology Quarterly*, 14(3), 230-241. <https://doi.org/10.1080/09515070.2021.1929075>
- Boffo, V., & Melacarne, C. (2019). Employability in adult and higher education. *New Directions for Adult and Continuing Education*, 163, 163-169. <https://doi.org/10.1002/ace.20349>
- Borgonovi, F., Pokropek, M., & Pokropek, A. (2023). Relations between academic boredom, academic achievement, ICT use, and teacher enthusiasm among adolescents. *Computers & Education*, 200(1), 104807-104812. <https://doi.org/10.1016/j.compedu.2023.104807>
- Chaudhary, R., & Narad, A. (2022). Relationship in Psychological Capital and Academic Achievement of adolescents. *Journal of Positive School Psychology*, 6(2), 2274-2281. <https://journalppw.com/index.php/jpsp/article/view/1805>
- Chen, P. L., Lin, C. H., Lin, I. H., & Lo, C. O. (2023). The mediating effects of psychological capital and academic self-efficacy on learning outcomes of college freshmen. *Psychological Reports*, 126(5), 2489-2510. <https://doi.org/10.1177/00332941221077026>
- Clarence, M., Devassy, V. P., Jena, L. K., & George, T. S. (2021). The effect of servant leadership on well-being: The mediating role of psychological capital. *International Review of Education*, 67, 305-331. <https://doi.org/10.1007/s11159-020-09856-9>
- Farrokhi, M. (2023). The relationship between academic engagement and academic self-efficacy with academic achievement in students.
- Fatehi, N., Kachoei, M., & Gholami-Hosnaroudi, M. (2021). The Causal Model of Couple Burnout Based on Irrational Relationship Beliefs, Non-adaptive Strategies of Cognitive Emotion Regulation, and Psychological Capital. *International Journal of Behavioral Sciences*, 15(2), 120-126. https://www.behavsci.ir/article_134297.html
- Ghodrati, Z., Sarai, A. A., & Bakhshi Poor, A. (2024). Structural model of the relationship between emotional-social competence and academic engagement with academic achievement: The mediating role of academic self-efficacy in high school students in Bojnord. *Rooesh Psychology*, 13(6), 180-171. <https://frooyesh.ir/article-1-5282-en.html>
- Gholi Zadeh, Z., Mirzaei, L., & Mirzaei, M. (2023). Meta-analysis of the relationship between self-esteem and academic achievement. *Quarterly Journal of Educational Psychology*, 19(70), 200-226. https://jep.atu.ac.ir/article_17399.html?lang=en
- Hanham, J., Beng, L. C., & Teo, T. (2021). The influence of technology acceptance, academic self-efficacy, and gender on academic achievement through online tutoring. *Computers & Education*, 172. <https://doi.org/10.1016/j.compedu.2021.104252>
- Horst, S. J., Finney, S. J., & Barron, K. E. (2007). Moving beyond academic achievement goal measures: A study of social achievement goals. *Contemporary Educational Psychology*, 32, 667-698. <https://doi.org/10.1016/j.cedpsych.2006.10.011>
- Huang, L., & Wang, D. (2023). Teacher Support, Academic Self-Efficacy, Student Engagement, and Academic Achievement in Emergency Online Learning. *Behavioral Sciences*, 13(9), 704. <https://doi.org/10.3390/bs13090704>
- Hussain, S., & Khan, M. Q. (2023). Student-performulator: Predicting students' academic performance at secondary and intermediate level using machine learning. *Annals of Data Science*, 10(3), 637-655. <https://doi.org/10.1007/s40745-021-00341-0>
- Jafari, H., & Hakim, A. (2024). The effect of psychological capital on job enthusiasm, job commitment, and job satisfaction: The mediating role of job emotions. *Industrial and Organizational Psychology Studies*, 11(1), 33-50. https://jiops.scu.ac.ir/article_19199.html?lang=en
- Karami, M., & Zarei Mirk Abad, A. (2024). Presenting a structural model of academic progress based on academic vitality, school enthusiasm, and sense of belonging to school with the mediation of academic self-concept in students. *Quarterly Journal of New Psychological Research*. https://psychologyj.tabrizu.ac.ir/article_18200.html?lang=en
- Karimian Poor, G., Hosseini, S., Amrollahi Biouki, M., & Ghaed Rahmati, M. (2024). The relationship between teacher leadership style and academic enthusiasm in students: The mediating role of school climate and academic self-efficacy. *Applied Educational Leadership*, 5(3), 234-246. https://ael.uma.ac.ir/article_3346.html?lang=en
- Khalili, T., Zarei, H. A., & Mirhashemi, M. (2022). Developing a model for academic progress in students through executive functions, psychological capital, and academic engagement. *Mashhad University of Medical Sciences Journal of Medical School*, 65(5). <https://sid.ir/paper/1122764/en>
- Kirk, K. (2023). Student motivations and attitudes: The role of the affective domain in Geoscience learning. <https://sere.carleton.edu/NAGTworkshops/affective/efficacy.html>
- Kotzé, M. (2018). The influence of psychological capital, self-leadership, and mindfulness on work engagement. *South African Journal of Psychology*, 48(2), 279-292. <https://doi.org/10.1177/0081246317705812>
- Kumar, D., Upadhyay, Y., Yadav, R., & Goyal, A. K. (2022). Psychological capital and innovative work behaviour: The role of mastery orientation and creative self-

- efficacy. *International Journal of Hospitality Management*, 102, 103157. <https://doi.org/10.1016/j.ijhm.2022.103157>
- Kunnari, J., Pursiainen, J., & Muukkonen, H. (2023). The relationship between secondary education outcomes and academic achievement: a study of Finnish educational sciences students. *Journal of Further and Higher Education*, 47(9), 1155-1168. <https://doi.org/10.1080/0309877X.2023.2222263>
- Larson, K. E., Bottiani, J. H., Pas, E. T., Kush, J. M., & Bradshaw, C. P. (2019). A multilevel analysis of racial discipline disproportionality: A focus on student perceptions of academic engagement and disciplinary environment. *Journal of School Psychology*, 77, 152-167. <https://doi.org/10.1016/j.jsp.2019.09.003>
- Lunn, A. M., Cogan, L. S., & Manfrin, A. (2021). Evaluation of students' performance and engagement using post-laboratory integrated assessments within a pharmacy course in the United Kingdom: a pilot cohort cross-over study. *Currents in Pharmacy Teaching and Learning*, 13(5), 449-459. <https://doi.org/10.1016/j.cptl.2021.01.010>
- Luthans, F., Norman, S. M., Avolio, B. J., & Avey, J. B. (2008). The mediating role of psychological capital in the supportive organizational climate-employee performance relationship. *Journal of Organizational Behavior*, 29, 219-238. <https://doi.org/10.1002/job.507>
- Mahmoudpour, A., Darba, M., Sheikhi Sonai, N. M., & Zolfagari, S. (2020). Predicting academic motivation of students based on academic self-handicapping, academic self-efficacy, inefficient attitudes, and meaning of education. *Rooesh Psychology*, 9(8), 51-62. <https://frooyesh.ir/article-1-2244-en.html>
- Maleki, B., & Hosseini, S. A. (2023). Causal model of self-regulated learning in students based on academic self-efficacy and motivational beliefs: The mediating role of psychological capital. *Quarterly Journal of New Psychological Research*, 18(72), 267-277. https://psychologyj.tabrizu.ac.ir/article_17335.html?lang=en
- Martínez, I. M., Youssef-Morgan, C. M., Chambel, M. J., & Marques-Pinto, A. (2019). Antecedents of academic performance of university students: academic engagement and psychological capital resources. *Educational Psychology*, 39(8), 1047-1067. <https://doi.org/10.1080/01443410.2019.1623382>
- Meghdad Abid, R., & Mosa Abbas, Z. (2022). The relationship of self-efficacy to the academic achievement of college students Physical Education and Sports Sciences - University of Al-Qadisiyah. *Wasit Journal of Sports Sciences*, 276-285. <https://www.iraqoj.net/iasj/article/243769>
- Mirzaei, E., & Jafari Herandi, R. (2020). Predicting academic performance based on components of psychological capital and psychological hardness. *Educational Psychology Studies*, 17(39), 144-123. https://jepus.usb.ac.ir/article_5705.html?lang=en
- Mohkham Kar, A., Shaterian, F., & Nikookar, A. (2024). The effectiveness of success-based intelligence training on emotional self-awareness and academic enthusiasm in secondary school students. *Sociology of Education*, 10(1), 305-313. https://www.iase-jrn.ir/article_710763.html
- Paloş, R., Sava, S. L., & Virgă, D. (2020). The role of teacher support, students' need satisfaction, and their psychological capital in enhancing students' self-regulated learning. *Studia psychologica*, 62(1), 44-57. <https://doi.org/10.31577/sp.2020.01.790>
- Pianta, R. C., Lipscomb, D., & Ruzek, E. (2022). Indirect effects of coaching on pre-K students' engagement and literacy skill as a function of improved teacher-student interaction. *Journal of School Psychology*, 91, 65-80. <https://doi.org/10.1016/j.jsp.2021.12.003>
- Sadri, M. R., Gol Parvar, M., Aghaei, A., & Gilliam, L. (2021). Comparing the effectiveness of meaning-centered academic education and positive psychology education on academic optimism and academic meaning. *Positive Psychology Research Journal*, 7(3), 31-50. https://ppls.ui.ac.ir/article_26227.html?lang=en
- Salari Chineh Parvin, F. V. A. (2024). The correlation of emotional intelligence, creativity, and academic achievement with the mediating role of psychological capital in male sixth-grade students. *Health Research and Development*, 2(2), 30-17. <https://doi.org/10.61186/jhrd.2.2.17>
- Saleem, M. S., Isha, A. S. N., Yusop, Y. M., Awan, M. I., & Naji, G. M. A. (2022). The Role of Psychological Capital and Work Engagement in Enhancing Construction Workers' Safety Behavior. *Frontiers in Public Health*, 10. <https://doi.org/10.3389/fpubh.2022.1086843>
- Samari Safa, J., & Poordel, M. (2022). Presenting a model of academic burnout based on family emotional hunger, psychological capital, goal orientation, procrastination, and academic engagement of graduate students. *Counseling and Psychotherapy Culture*. https://qccpc.atu.ac.ir/article_13384.html?lang=en
- Shahraki, T., Rigi Nejad, M., Herati Dom, S., & Faghiri, M. (2022). Examining the relationship between academic enthusiasm and its components with academic achievement in middle school students. *Advances in Modern Psychology, Educational Sciences and Pedagogy*, 5(51), 102-131. <https://ensani.ir/fa/article/511869/>
- Sultani Banavandi, E., Khezri Moghaddam, N., & Bani-Asadi, H. (2017). Exploration of positive psychology constructs: Predicting academic vitality based on the meaning of life. *Scientific-Research Bi-monthly Journal of Educational Strategies in Medical Sciences*, 10(4), 277-287. <https://ensani.ir/fa/article/383806/>
- Tomaszewski, W., Xiang, N., & Huang, Y. (2024). School climate, student engagement and academic achievement across school sectors in Australia. *Australian Educational Researcher*, 51, 667-695. <https://doi.org/10.1007/s13384-023-00618-8>
- Toprak, M., Tösten, R., & Elçiçek, Z. (2022). Teacher stress and work-family conflict: Examining a moderation model of psychological capital. *Irish Educational Studies*, 1(2), 1-17. <https://www.tandfonline.com/doi/full/10.1080/03323315.2022.2135564>
- Warshawski, S. (2022). Academic self-efficacy, resilience and social support among first-year Israeli nursing students learning in online environments during COVID-19 pandemic. *Nurse Education Today*, 110(5), 105-115. <https://doi.org/10.1016/j.nedt.2022.105267>
- Wolf, R. (2023). Enhancing student engagement: Engaging the post-pandemic face-to-face prelicensure nursing student: A review of the literature. *Teaching and Learning in Nursing*, 18(4), 534-540. <https://doi.org/10.1016/j.teln.2023.07.012>

- Zhang, W., Zhang, L., Chen, L., Ji, L., & Deater-Deckard, K. (2019). Developmental changes in longitudinal associations between academic achievement and psychopathological symptoms from late childhood to middle adolescence. *Journal of Child Psychology and Psychiatry*, 60, 178-188.
<https://doi.org/10.1111/jcpp.12927>
- Ziegler, N., & Opdenakker, M. C. (2018). The development of academic procrastination in first-year secondary education students: The link with metacognitive self-regulation, self-efficacy, and effort regulation. *Learning and Individual Differences*, 64, 71-82.
<https://doi.org/10.1016/j.lindif.2018.04.009>