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Academic Grit, Academic Flow and Academic Thriving: Mediating Role of Adaptive Coping Style

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Abstract: Academic flow and academic thriving are significant variables in students' academic achievement that require energy and constant effort in the face of new and challenging situations. Accordingly, the prediction of academic flow and academic thriving based on motivational personality factors is one of the topics that is of great importance in educational psychology. This study aimed to examine the relationships between academic grit, academic flow and academic thriving mediated by adaptive coping style. The research sample was 300 high school students of Minab, Iran who were randomly selected by multi stage sampling. Schreiner (2009) Academic thriving questionnaire, Yuwanto (2013) Academic Flow Scale, Skinner et al. (2013) Academic Coping Styles and Clark and Malecki (2019) Academic Grit Scale were used to collect data. Results indicated that academic grit is directly related to adaptive coping style (B = .22, p < .05), to academic flow (B = .31, p < .01), and to academic thriving (B = .24, p < .01). Also, the results of bootstrap analysis revealed a significant indirect relationship between academic grit and academic flow through adaptive coping style (B = .35, p < .05) and a significant indirect relationship between academic grit and academic thriving through adaptive coping style (B = .51, p < .01). In general, the findings showed that academic grit increase academic flow and academic thriving, directly and indirectly. Consequently, academic grit is an important factor in improving students' academic flow and academic thriving..

Keywords: Academic grit, Academic flow, Academic thriving, Academic coping style.

Introduction

Academic achievement is an important and influential process that requires endurance and effort in the face of challenges as well as students' academic flow and the development of their academic talents (R Binning, Wang, & Amemiya, 2019).

Academic flow is defined as the experience of working at full capacity in an academic activity and being closely related to that subject or task. The concept of academic flow was first introduced by Yuwanto (2018) in educational psychology. This structure has three important components: Intrinsic motivation as a person's desire to engage in an academic activity, complete concentrate and focus on an academic activity, and enjoy as very positive thoughts and feelings related to a person's educational position. Usually, students develop an academic flow when they do academic activities such as studying, doing homework, or giving a seminar. A person who experiences academic flow does not

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feel the passage of time and feels inner satisfaction from doing homework and does not need external rewards (Csikszentmihalyi & Csikzentmihaly, 1990).

Flow is positively and significantly associated with higher well-being (Asakawa, 2010), successful academic performance (Engeser, Rheinberg, Vollmeyer, & Bischoff, 2005), higher mental and physical health (Steele & Fullagar, 2009), positive emotions such as enjoy, happiness and satisfaction (Chiang, Lin, Cheng, & Liu, 2011).

Academic thriving is also one of the important concepts in education. Schreiner, Louis, and Nelson (2020) define students' academic thriving as intellectual, social, and emotional engagement and believe those students who experience academic thriving will be academically successful and having a high level of mental ability to achieve success. They will experience and will benefit the most from their educational experiences. Research has shown that academic thriving is very important and is a key factor in academic achievement (Astin, 1999).

Schreiner, Pothoven, Nelson, and McIntosh (2009) argue that academic thriving consists of five factors, including academic engagement, academic determinism, positive perspective, social connections, and diverse citizenship. Engagement in learning includes meaningful processing, focus and active participation in the learning process. These students focus on learning opportunities. They discuss and think about the learning process and get their energy by doing it. Academic determinism indicates a purposeful and self-regulating effort to complete academic assignments. This structure includes goal setting and motivation to achieve educational goals. People with academic determinants are well aware that effort is a key factor in their academic achievement. Positivism expresses mental well-being and optimism. Positive students have the hope to achieve positive outcomes despite challenging or unfavorable circumstances. Schreiner (2013) defines positive perspective is considered as a kind of active view of reality and adaptation to it. Social connections indicate the student's belonging to a learning community (Ambler, 2006). These relationships provide the context for a variety of learning support. Diverse citizenship indicates that the student is interested in and welcomes people who are different in diverse areas. Accordingly, diverse citizenship enables students to develop strong critical and reasoning skills with an open mind to diverse people.

Considering the importance and role of academic flow and academic thriving in students' cognitive and motivational outputs, in the present study, academic grit has been examined as a predictor of academic flow and academic thriving and adaptive academic coping styles have been tested as a mediating variable.

Adaptive Coping Styles are a set of coping techniques that help students adapt better when faced with academic difficulties (E. Skinner, Pitzer, & Steele, 2013). Adaptive coping style includes strategy building, commitment, self-encouragement and seeking help. Strategy building refers to trying to find solutions to problems or prevent problems from arising in the future. Commitment energizes people in the face of obstacles and challenges and makes them more resilient to problems. Self-encouragement helps people to improve their positive emotions by enhancing their self-confidence and optimism, and ultimately seeking help is seen as asking adults for help in understanding and how to learn more

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effectively (E. Skinner et al., 2013). Some researchers believe that the academic coping strategies used by students can affect their academic abilities and achievements ((E. A. Skinner & Wellborn, 1997). In fact, the type of coping strategies that students use affects students' academic performance (Perlow, 2018).

Students who use adaptive coping styles have greater academic satisfaction, use appropriate problem-solving strategies, show more commitment in life, have more control over their academic problems, and are more successful (Stone & Neale, 1984). Gonzales, Tein, Sandler, and Friedman (2001) found that people who use adaptive coping styles experience higher academic achievement and prosperity in school. Research shows that in the school environment, the use of adaptive coping strategies has an effect on reducing stress (Miquelon & Vallerand, 2006) and the proper performance of homework (Ramirez, Shaw, & Maloney, 2018; E. A. Skinner, Pitzer, & Steele, 2016).

Adaptive coping styles help students overcome barriers in the classroom and engage in the learning process (E. Skinner et al., 2013). Students who use adaptive coping styles such as problem solving perform better (Bowman, 2010; Schreiner, 2013; Soheili, Kazemi, Sohrabi Shekofti, & Barzegar, 2020), are more likely to use logical solutions, and are more effective in their academic performance (Crego, Carrillo-Diaz, Armfield, & Romero, 2016). Adaptive coping style helps students maintain a keen interest in education and are consistent and goal-oriented (Pitzer, 2015). Also, students with higher levels of grit were more likely to use adaptive coping styles (Holtby, 2018).

In the present study, for two reasons, to predict academic flow and academic thriving - the personality and motivational variables- academic grit has been examined. The first reason is that intelligence capabilities alone are not sufficient for academic success, but in addition to intelligence, motivational variables must be considered (Lam & Zhou, 2019). Also, academic flow and academic thriving are structures that are derived from positive psychology. Therefore, an educational structure based on positive psychology must be used to predict them, and academic grit as a variable arising from positive psychology was considered.

Academic grit is defined as working strenuously to- ward challenges, maintaining effort and interest over years despite failure, adversity, and plateaus in progress (Angela L Duckworth, Peterson, Matthews, & Kelly, 2007). Academic grit is defined as steadfastness and a desire to achieve long-term academic goals. Academic grit shows itself as a precise and purposeful work against challenges and constant efforts and interest and enthusiasm. Grit is the ability to stay on track regardless of whether one is experiencing problems or failure (Angela L Duckworth et al., 2007; Angela Lee Duckworth & Quinn, 2009).

Researchers have confirmed the effect of academic grit on various indicators of academic achievement (Credé, 2018; Angela Lee Duckworth & Quinn, 2009; Muenks, Wigfield, Yang, & O'Neal, 2017; Wolters & Hussain, 2015) People who show more grit (both in terms of perseverance and in terms of stability of interest) show more flow (deep and effortless concentration) (Wang & Eccles, 2012). Marty-Dugas and Smilek (2019), and Ralph, Wammes, Barr, and Smilek (2017) also show that grit is

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associated with academic flow. (Wolff & Borzikowsky, 2018) believe that various factors such as the development of personal skills and grit have an impact on people's success.

Hwang, Lim, and Ha (2018) showed that academic grit is a good predictor of high academic performance and the use of adaptive coping styles for academic problems. People with high grit are better able to focus and avoid trivial matters. For this reason, high grit people are better able to focus on their goals for a long time and achieve academic flow and academic thriving (Carriere, Cheyne, & Smilek, 2008).

Due to the positive consequences of academic grit and the new emergence of this structure in educational research, the current study can be considered as an important effort to produce knowledge in the field of academic grit. Accordingly, in this study, a model was tested in which academic grit was examined as predictor, academic flow and academic thriving were examined as criterion variables and academic coping styles was considered as a mediating variable. The proposed model is presented in Figure 1.

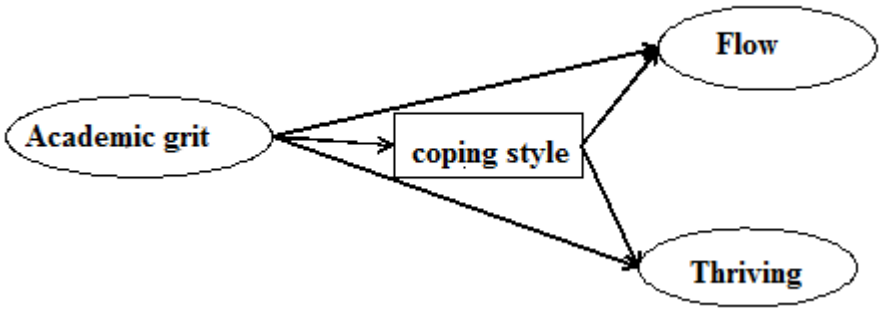

Fig. 1. The proposed model

Material and Methods

The statistical population of the present study was all of twelfth grade students in Minab (Iran), in 2020. A total of 320 people (160 female students and 160 male students) were selected by multi-stage random sampling method. After removing incomplete questionnaires, the data of 300 questionnaires were analyzed. Sampling was done in such a way that at first, some schools were randomly selected from all schools in Minab city, and in the next stage, a number of twelfth grade classes were selected, and in the final stage, 320 students were randomly selected from the selected classes. Participants answered the questionnaires in person and online. Descriptive statistical methods such as mean, standard deviation and correlation were used to describe the data. Structural equation modeling (SEM) was used to test the research hypotheses. Data analysis was performed using SPSS and AMOS version 21. The level of significance for all hypotheses is considered to be <.05. Indirect and mediating effects were also investigated by bootstrap method.

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Instrument

1. Academic Thriving Questionnaire: The Academic Thriving Questionnaire developed by Schreiner et al. (2009) was used to measure academic thriving. The questionnaire consists of 18 items and measures five factors include engaged learning, academic determinism, positive perspective, social connectedness and diverse citizenship. The scoring method is done with a 6-point Likert method from 1 (completely disagree) to 6 (completely agree). Nelson, Schreiner, and Louis (2012) calculated the reliability of the questionnaire by Cronbach's alpha method of .98 and also reported the structural validity of the questionnaire as desirable. In the present study, the reliability of the questionnaire was calculated to be .92 by Cronbach's alpha method. Also, the validity of the questionnaire was obtained at the desired level by confirmatory factor analysis.

2. Academic flow questionnaire: The Academic flow Questionnaire was developed by Yuwanto (2018). The questionnaire has 14 items and measures the three dimensions of concentration, academic satisfaction and internal academic motivation on a 6-point scale from 1 (strongly disagree) to 6 (strongly agree). The reliability of the questionnaire was calculated to be .76 by Cronbach's alpha method. In the present study, the reliability of the questionnaire was calculated to be .81 by Cronbach's alpha method. The validity of the questionnaire was confirmed by confirmatory factor analysis method according to fitness indicators (CFA = .91, RMSEA = .032).

3. Adaptive coping style questionnaire: Academic coping styles have been assessed using the Academic Coping Styles Questionnaire developed by E. Skinner et al. (2013). The scale measures five adaptive academic coping styles (strategy-building, commitment, self-motivation, seeking comfort, and seeking help). The scoring method of the questionnaire is based on the five-point Likert method from 5 (strongly disagree) to 1 (strongly agree). E. Skinner et al. (2013) calculated the reliability of the questionnaire using Cronbach's alpha method between .68 and .90. In the present study, the reliability of the questionnaire was calculated to be .89 by Cronbach's alpha method. The validity of the questionnaire was confirmed by confirmatory factor analysis according to fitness indicators (CFA = .92, RMSEA = .066).

4. Academic grit questionnaire: The Academic grit questionnaire developed by Clark (2017) was used to measure Academic grit. This questionnaire consists of 10 items. The scoring method of the questionnaire is done with a five-point Likert method from 1 (strongly disagree) to 5 (strongly agree). The reliability of the questionnaire was reported by Clark (2017) with Cronbach's alpha method of .79. Also, the validity of the questionnaire by exploratory factor analysis method by Clark (2017) revealed that all items have a favorable factor load (above .50). In the present study, the reliability of the questionnaire was calculated to be .82 by Cronbach's alpha method. Also, the validity of the questionnaire was obtained by the method of favorable confirmatory factor analysis (CFA = .93, RMSEA = .071).

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Results

Descriptive findings including mean and standard deviation are presented in Table 1. The correlation matrix of research variables is also presented in Table 2. Table 2 shows that the correlation coefficients between Academic grit and academic flow, academic thriving and academic coping style are significant. Skewness coefficient and Kurtosis coefficient were used to check the normality of the data. The absolute value of the Skewness coefficient is less than 3 and Kurtosis coefficient less than 10 is the criterion of normality of the variables. In the present study, the absolute value of the Skewness coefficient and Kurtosis coefficient of the variables were less than 3 and 10, respectively, so the data of the present study were normal.

Table 1. Descriptive findings of research variables

Variable	Mean	SD
Grit	36.86	4.01
Adaptive coping style	97	10.04
Academic flow	39.14	5.90
Academic thriving	60.03	4.21

Table 2. Correlation matrix of research variables

Variable	1	2	3	4
1.Grit	1			
2.Adaptive coping style	.65**	1		
3.Academic flow	.44**	.58**	1	
4.Academic thriving	.66**	.41**	.42**	1

** $p < .01$

Table 2 shows that the correlation coefficients between academic grit with academic flow, academic thriving and adaptive academic coping style are positive and significant. Also, the correlation coefficients between adaptive coping styles with academic flow and academic thriving are positive and significant. The structural equation model (SEM) was used to evaluate the proposed model. Table 3 shows the fit indices.

Table 3. Fit indices of the proposed model

Model	$\chi 2$	Df	$\chi 2$/ df	GFI	AGFI	NFI	TLI	CFI	RMSEA
Proposed model	136.21	41	3.31	.93	.83	.95	.93	.95	.043
Accepted values	-	-	< 5	.90	.90	.90	.90	.90	< .08

According to Table 3, the fit indices of the proposed model include chi-square (X^2) equal to 136.21, degree of freedom (df) equal to 41, relative chi-square ratio (X^2 / df) equal to 3.31, CFI is equal to .95, GFI is equal to .93, AGFI is equal to .93, TLI is equal to .93 and RMSEA is estimated to be .043. The calculated indices indicate a very good fit of the proposed model with the data. Figure 2 shows the standard path coefficients in the model.

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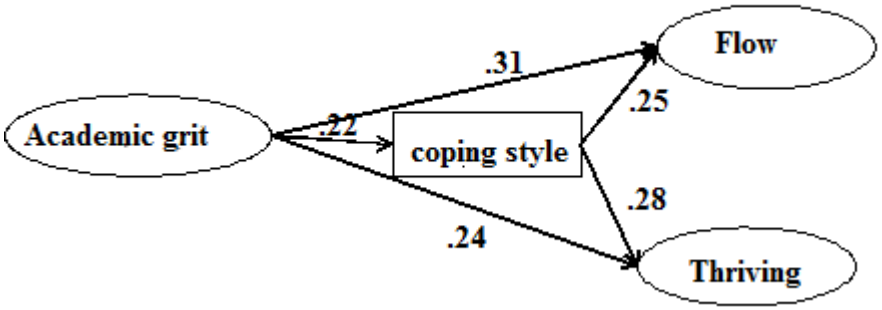

Fig. 2. The standard path coefficients in the model

Table 4 shows the parameters related to the direct effects of variables on each other in the tested model. Table 4 shows the path coefficients and error values for the research variables.

Table 4. Standard and non-standard effects of direct paths

Path	Beta	B	Std. Error	CR	p
Academic grit to adaptive coping style	.22	2.52	1.61	2.12	.001
Academic grit to academic flow	.31	5.62	4.89	2.05	.001
Academic grit to academic thriving	.24	1.44	7.05	1.95	.001
Adaptive coping style to academic flow	.25	3.12	.18	2.55	.001
Adaptive coping style to academic thriving	.28	2.98	.167	3.21	.001

According to table 4, all pathways of academic grit to all academic outcomes are significant. The path coefficient between academic grit to adaptive academic coping style is .22, which is significant at the level of .05. Also, the path coefficient between academic grit and academic flow is .31, which is significant at the level of .05. The direct effect of adaptive coping styles on academic flow (.25) is significant at the level of .01. Also, the path coefficient between adaptive academic coping style and academic thriving (.28) is significant at the level of .01.

Table 5. Bootstrap results related to the indirect relationships

Path	Beta	Std. error	Upper limit	Lower limit	p
Academic grit – adaptive coping style – academic flow	.009	1.48	.37	.17	.02
Academic grit – adaptive coping style – academic thriving	.11	5.37	.55	.27	.006

According to Table 5, the indirect effect of academic grit on academic flow through adaptive coping style using the bootstrap method is in the range between .17 and .37, which does not include the number zero. Also, the beta equal to .009 is significant at the level of .02. The indirect effect of academic grit to academic thriving through adaptive coping style using the bootstrap method is in the range between .27 and .55, which does not include the number zero and beta equal to .11 is significant at the level. 006.

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Discussion

The findings of the present study showed that academic grit has a direct positive effect on academic flow and academic thriving. In addition, the findings confirmed that academic grit can increase academic flow and academic thriving through adaptive coping style. These findings are consistent with the findings of Smith, Marty-Dugas, Ralph, and Smilek (2020), Marty-Dugas and Smilek (2019), (Ralph et al., 2017). Consistency in interest in the subject increases intrinsic motivation and this motivation increases academic flow. In addition, academic grit insists on continuing and completing academic assignments and thus increases academic grit. It can also be said that people with high grit are more eager to start academic activities and assignments, which can improve the level of skills and thus create a balance between challenges and skills, and thus increase academic flow.

One of the important elements of academic grit that leads students to academic thriving is individual enthusiasm to achieve an important goal. Because the main cause of academic thriving is the desire to learn new things, academic grit, due to its characteristics such as desire to learn and consistency in thinking and perseverance in learning, engages the learner in continuous learning to grow and change. By overcoming academic barriers and challenges, academic grit always encourages and guides the learner to learn new topics (E. A. Skinner et al., 2016).

Explaining the effect of academic grit on academic flow and academic thriving through adaptive coping style, it can be said that academic grit by increasing adaptive coping style components such as planning, active efforts to reduce academic problems, increase commitment to problem solving, and self-encouragement sets the stage for academic flow and academic thriving. Research by Smith et al. (2020), Marty-Dugas and Smilek (2019), and Ralph et al. (2017) show that grit is associated with academic flow. One of the reasons for this relationship is that consistency in interest in the subject increases intrinsic motivation and this motivation increases academic flow. In addition, academic grit insists on continuing and completing academic assignments, which causes less distraction from the subject under study and thus increases academic flow ((E. A. Skinner & Wellborn, 1997). It can also be said that people with grit are more eager to start academic activities and assignments, which can improve the level of skills and thus create a balance between challenges and skills and thus more academic flow.

Students with more academic grit use more academic adaptation styles such as positive framing, planning, and active adaptation. Academic grit allows students to view stress in a positive light and instead of seeing stress as a threat, they see it as an opportunity for growth and development. In addition, academic grit allows students to design an action plan for their future and take the initiative to change position. As a result, it promotes academic flow and academic thriving (Eskreis-Winkler, Shulman, Beal, & Duckworth, 2014).

In general, based on the findings of the present study and the importance and impact of grit on students' flow and academic thriving, it is suggested that through the educational workshops, teach the necessary knowledge to students and teachers about these variables. It is also suggested that the educational system encourage continuity and perseverance in achieving long-term educational goals in

students. Finally, it is suggested that the education system teach students an adaptive academic coping style so that students can use these styles to achieve academic flow and academic thriving.

The present study has been associated with limitations that should be considered in generalizing the findings. One of the limitations of the present study is that this study was performed on twelfth grade students and thus limits the generalizability of the results. Also, in explaining the causality between the variables in this research, caution should be observed because using the structural modeling equations, it is not possible to accurately infer the causal relationships. The use of self-report questionnaires to collect data is also one of limitations, which in future research should use other methods of data collection such as interviews.

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References

Ambler, V. M. (2006). *Who flourishes in college? Using positive psychology and student involvement theory to explore mental health among traditionally aged undergraduates*: The College of William and Mary.

Asakawa, K. (2010). Flow experience, culture, and well-being: How do autotelic Japanese college students feel, behave, and think in their daily lives? *Journal of Happiness Studies, 11*(2), 205-223.

Astin, A. W. (1999). Student involvement: A developmental theory for higher education. *Journal of college student development, 40*(5), 518–529.

Bowman, N. A. (2010). The development of psychological well-being among first-year college students. *Journal of college student development, 51*(2), 180-200.

Carriere, J. S., Cheyne, J. A., & Smilek, D. (2008). Everyday attention lapses and memory failures: The affective consequences of mindlessness. *Consciousness and cognition, 17*(3), 835-847.

Chiang, Y.-T., Lin, S. S., Cheng, C.-Y., & Liu, E. Z.-F. (2011). Exploring Online Game Players' Flow Experiences and Positive Affect. *Turkish Online Journal of Educational Technology-TOJET, 10*(1), 106-114.

Clark, K. (2017). *Investigating a novel measure of academic grit*: Northern Illinois University.

Credé, M. (2018). What shall we do about grit? A critical review of what we know and what we don't know. *Educational Researcher, 47*(9), 606-611.

[Downloaded from ieepj.hormozgan.ac.ir on 2026-11-08]

[DOR: 20.1001.1.25884395.2022.4.2.5.7]

[DOI: 10.52547/ieepj.4.2.244]

Crego, A., Carrillo-Diaz, M., Armfield, J. M., & Romero, M. (2016). Stress and academic performance in dental students: the role of coping strategies and examination-related self-efficacy. *Journal of dental education, 80*(2), 165-172.

Csikszentmihalyi, M., & Csikzentmihaly, M. (1990). *Flow: The psychology of optimal experience* (Vol. 1990): Harper & Row New York.

Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: perseverance and passion for long-term goals. *Journal of personality and social psychology, 92*(6), 1087.

Duckworth, A. L., & Quinn, P. D. (2009). Development and validation of the Short Grit Scale (GRIT–S). *Journal of personality assessment, 91*(2), 166-174.

Engeser, S., Rheinberg, F., Vollmeyer, R., & Bischoff, J. (2005). *Motivation, flow-Erleben und Lernleistung in universitären Lernsettings*. Retrieved from Germany:

Eskreis-Winkler, L., Shulman, E. P., Beal, S. A., & Duckworth, A. L. (2014). The grit effect: Predicting retention in the military, the workplace, school and marriage. *Frontiers in psychology, 5*, 36.

Gonzales, N. A., Tein, J.-Y., Sandler, I. N., & Friedman, R. J. (2001). On the limits of coping: Interaction between stress and coping for inner-city adolescents. *Journal of Adolescent Research, 16*(4), 372-395.

Holtby, N. M. (2018). *Grit, Coping, and Math Anxiety: Examining the Pathways Through Which Devotion to Long-Term Goals May Promote Student Well-Being.* University of Toronto (Canada),

Hwang, M. H., Lim, H. J., & Ha, H. S. (2018). Effects of grit on the academic success of adult female students at Korean Open University. *Psychological Reports, 121*(4), 705-725.

Lam, K. K. L., & Zhou, M. (2019). Examining the relationship between grit and academic achievement within K-12 and higher education: A systematic review. *Psychology in the Schools, 56*(10), 1654-1686.

Marty-Dugas, J., & Smilek, D. (2019). Deep, effortless concentration: Re-examining the flow concept and exploring relations with inattention, absorption, and personality. *Psychological research, 83*(8), 1760-1777.

Miquelon, P., & Vallerand, R. J. (2006). Goal motives, well-being, and physical health: Happiness and self-realization as psychological resources under challenge. *Motivation and emotion, 30*(4), 259-272.

Muenks, K., Wigfield, A., Yang, J. S., & O'Neal, C. R. (2017). How true is grit? Assessing its relations to high school and college students' personality characteristics, self-regulation, engagement, and achievement. *Journal of Educational Psychology, 109*(5), 599.

Nelson, D. D., Schreiner, L. A., & Louis, M. C. (2012). *Thriving in transitions: A research-based approach to college student success*: The National Resource Center for The First-Year Experience.

[Downloaded from ieepj.hormozgan.ac.ir on 2026-11-08]

[DOR: 20.1001.1.25884395.2022.4.2.5.7]

[DOI: 10.52547/ieepj.4.2.244]

Perlow, B. (2018). *The Relationships among Stress, Academic Coping, and Academic Outcomes: A Moderated Mediation Model.* University of Maryland, College Park,

Pitzer, J. R. (2015). *Exploring the developmental dynamics of motivational resilience over the transition to middle school.* Portland State University,

R Binning, K., Wang, M.-T., & Amemiya, J. (2019). Persistence mindset among adolescents: Who benefits from the message that academic struggles are normal and temporary? *Journal of Youth and Adolescence, 48*(2), 269-286.

Ralph, B. C., Wammes, J. D., Barr, N., & Smilek, D. (2017). Wandering minds and wavering goals: Examining the relation between mind wandering and grit in everyday life and the classroom. *Canadian Journal of Experimental Psychology/Revue canadienne de psychologie expérimentale, 71*(2), 120.

Ramirez, G., Shaw, S. T., & Maloney, E. A. (2018). Math anxiety: Past research, promising interventions, and a new interpretation framework. *Educational psychologist, 53*(3), 145-164.

Schreiner, L. A. (2013). Thriving in college. *New Directions for Student Services, 2013*(143), 41-52.

Schreiner, L. A., Louis, M. C., & Nelson, D. D. (2020). *Thriving in transitions: A research-based approach to college student success*: The National Resource Center for The First-Year Experience.

Schreiner, L. A., Pothoven, S., Nelson, D., & McIntosh, E. J. (2009). *College student thriving: Predictors of success and retention.* Paper presented at the annual meeting of the Association for the Study of Higher Education, Vancouver, British Columbia.

Skinner, E., Pitzer, J., & Steele, J. (2013). Coping as part of motivational resilience in school: A multidimensional measure of families, allocations, and profiles of academic coping. *Educational and psychological measurement, 73*(5), 803-835.

Skinner, E. A., Pitzer, J. R., & Steele, J. S. (2016). Can student engagement serve as a motivational resource for academic coping, persistence, and learning during late elementary and early middle school? *Developmental psychology, 52*(12), 2099.

Skinner, E. A., & Wellborn, J. G. (1997). Children's coping in the academic domain. In *Handbook of children's coping* (pp. 387-422): Springer.

Smith, A. C., Marty-Dugas, J., Ralph, B. C., & Smilek, D. (2020). Examining the relation between grit, flow, and measures of attention in everyday life. *Psychology of Consciousness: Theory, Research, and Practice*.

Soheili, M., Kazemi, S., Sohrabi Shekofti, N., & Barzegar, M. (2020). A Causal Model of Parents' Personality Traits and Academic Performance with the Mediating Role of Academic Buoyancy. *Iranian Evolutionary and Educational Psychology Journal, 2*(3), 200-207.

Steele, J. P., & Fullagar, C. J. (2009). Facilitators and outcomes of student engagement in a college setting. *The Journal of psychology, 143*(1), 5-27.

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[DOI: 10.52547/ieepj.4.2.244]

Stone, A. A., & Neale, J. M. (1984). New measure of daily coping: development and preliminary results. *Journal of personality and social psychology*, *46*(4), 892.

Wang, M. T., & Eccles, J. S. (2012). Social support matters: Longitudinal effects of social support on three dimensions of school engagement from middle to high school. *Child development*, *83*(3), 877-895.

Wolff, F., & Borzikowsky, C. (2018). Intercultural competence by international experiences? An investigation of the impact of educational stays abroad on intercultural competence and its facets. *Journal of Cross-Cultural Psychology*, *49*(3), 488-514.

Wolters, C. A., & Hussain, M. (2015). Investigating grit and its relations with college students' self-regulated learning and academic achievement. *Metacognition and Learning*, *10*(3), 293-311.

Yuwanto, L. (2018). Academic flow and cyberloafing. *Psychology Research*, *8*(4), 173-177.

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[DOR: 20.1001.1.25884395.2022.4.2.5.7]

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