International Journal of Multicultural and Multireligious Understanding

http://ijmmu.com
editor@ijmmu.com
ISSN 2364-5369
Volume 11, Issue 1
January, 2024
Pages: 319-328

The Effect of Self Regulated learning. and Grit on Economic Learning Achievement

Dina Anggraeni; Dewi Kusuma Wardani; Leny Noviani

Department of Economics Education, Faculty of Teacher Training and Education, Sebelas Maret University, Indonesia

http://dx.doi.org/10.18415/ijmmu.v11i2.5555

Abstract

This study aims to determine whether self-regulated learning and Grit affect economic achievement. This research is a quantitative research with a correlational. The population in this study was students in grade X in Purworejo, as many as 2.773 students. This research uses cluster random sampling. The number of samples is 142 students. The data collection technique used a closed questionnaire research instrument with a Likert scale and a test in the form of multiple-choice questions. Data analysis technique using IBM SPSS Version 25. Based on the t-test results, the self-regulated learning variable on learning achievement obtained a t-count > t-table: 2.360 > 1.977 with a significance of 0.020 < 0.05. The Grit variable on the learning achievement variable obtained a t-count > t-table: 4.924 > 1.977 with a significance of 0.000 < 0.05. Based on the f-test result, the self-regulated learning and Grit on learning achievement variable obtained a f-count > f-table: 19.985 > 3.06. Self-regulated. Learning variables have a positive and significant effect on learning achievement, and Grit has a positive and significant effect on learning achievement. Self-regulated learning and Grit simultaneously affect learning achievement.

Keywords: *Self-Regulated Learning; Grit; Learning Achievement*

Introduction

Learning achievement can be understood as the result of students' efforts to achieve certain goals that are the focus of activities in the teaching environment, especially in schools, colleges and universities, as highlighted by Steinmayr et al., (2014). Student academic success plays an important role in the context of the learning process at school, reflecting the extent to which students can achieve and meet the achievement standards that have been set. It is important to remember that learning achievement includes cognitive aspects and involves factors such as persistence, motivation, and student's ability to manage their learning. In the view of Alhadi et al. (2018), student academic success is one of the crucial things because this achievement can reflect the level of understanding and mastery of the material and the student's ability to apply this knowledge in real-life contexts. International research has also shown that academic outcomes can determine future opportunities, such as employment (Currie & Thomas, 2001;

Zax & Rees, 2002; He et al., 2021). Several elements can influence learners' success over time, such as skills, study planning effort, and self-confidence, and educators try to help students achieve learning achievements (Sedlacek, 2017; Wang, 2021).

Based on preliminary study observations carried out at high school Purworejo, several problems were found. Students tend to be passive during learning in class, and some still need to be on time to submit assignments to the teacher. It causes students' grades to decrease as well as their learning achievement. The obstacles during the learning process are learning concentration, willingness, persistence of students' learning needs improvement, and lack of discipline. It means that some students do not achieve maximum learning, such as not understanding the material and being unable to answer evaluation questions at the end of studying. The results of the interview stated that the learning conditions that occurred were student learning motivation, learning perseverance, and independent learning, which were low; this was indicated by doing assignments that were not optimal and submitting assignments that were not on time.

Learning achievement factors are cognitive and non-cognitive (Steinmayr et al., 2014). Relevant research shows that student learning achievement is influenced by various factors, namely internal and external (Abdulghani et al., 2014). Internal factors include students' motivation, mindset, learning style, and external factors outside the individual, such as the environment and support from family and peers (Fadilah et al., 2021). Among various non-cognitive abilities, self-regulated learning is essential for learning achievement (Dent & Koenka, 2016). Self-regulated learning is a student development process that requires students to actively participate in the learning process independently, both metacognitively, motivationally, and behaviorally (Zimmerman, 1989). The self-regulated learning process requires students to monitor and assess their learning progress and plan short-term or long-term goals for student learning and self-motivation (Martin et al., 2022).

Students who self-regulate are active and aware of their educational development. They are more likely to persist and achieve better results when faced with challenging academic environments (Zusho, 2017; Wang & Guan, 2020; Wang, 2021). Three self-regulated learning strategies are cognitive, metacognitive, and resource management. Cognitive strategies are students' cognitive processes when receiving material, such as practice, elaboration, and critical thinking. Metacognitive strategies focus on the learner's awareness and control of cognitive processes, including planning, monitoring, and organizing. Resource management strategies require students to control and organize study time, manage a positive learning environment, and seek help if there are difficulties with teachers and peers (Pintrich, 1991; Xu et al., 2022). Students need to apply self-regulated learning in the classroom and outside the classroom to have a clear understanding of why and how self-regulation strategies are used (Bai & Wang, 2023).

Several empirical studies on the effect of self-regulated learning on learning achievement have a positive relationship. Students who actively regulate their learning tend to be successful in cognitive strategies to improve learning (Jansen et al., 2019; Xu et al., 2022). Students with good self-regulated learning will try to motivate themselves to continue learning and regulate their learning styles, so they will try to develop and determine plans for le arning (Wolters & Hussain, 2015). El-adl's (2020) research revealed a positive relationship between. self-regulated learning and. learning achievement. However, in contrast to Khan et al.'s (2020) research on college students, those with higher than average self-regulated learning skills are only a majority of their students; the others do not meet the standards of high-quality learning and education due to low self-regulated learning skills.

Another factor that can affect student learning achievement is Grit, defined as the spirit, perseverance, and hard work of individuals to achieve long-term goals found to be the most important (He et al., 2021). This factor contributes to student success in school; various studies have shown that Grit is a non-cognitive factor that can encourage student success in learning (Takiuddin & Husnu, 2020).

According to Duckworth (2007), Grit is long-term persistence and long-term passion that requires hard work to face challenges and having effort and interest despite ongoing failures and difficulties. Several studies have shown that Grit provides additional predictive validity for learning achievement outcomes (Duckworth et al., 2007; Duckworth & Quinn, 2009; Eskreis-Winkler et al., 2014; Park et al., 2020). Grit is defined by combining two factors: consistency of interest and perseverance (Sturman & Zappala-Piemme, 2017). Consistency of interest is the tendency of individuals to persist in pursuing a goal in the long term. Perseverance in trying describes people's ability to endure challenges and failures and maintain determination and hard work to achieve long-term goals (Alfonso et al., 2017; Crede et al., 2017; Duckworth. et al., 2007; Muenks et al., 2016; Ayllón-Salas et al., 2023).

Cultivating Grit from the early stages of learning can increase academic success (Harpaz et al., 2023). Individuals with high Grit are more persistent, tend to work harder and longer, and are likelier to engage in deliberate practices to improve performance or success (Hogan & Wong, 2013; Bazelais et al., 2016). However, research by Stoffel et al. (2018) found there were problems with students in America needing more Grit and resilience, and many students needed to prepare for the challenges of college. Thus, it is evidenced by the observation of 182 medical students and 132 nursing students with a weak correlation between Grit and academic achievement. In contrast, Wolters & Hussain, (2015) research results show that despite minimal research on Grit, Grit can be measured reliably and empirically. Recent meta-analyses show that Grit weakly correlates with students' academic achievement (Cred'e et al., 2017; Lam & Zhou, 2019; Guo et al., 2023). More research on Grit is needed to understand better the influence of Grit on students' academic success (Jaeger et al., 2010; Bazelais et al., 2016).

Learning achievement is considered necessary in education because high-achieving students tend to have competitive, solid motivation compared to low-achieving students (Lens et al., 2005; Latipah, 2010). According to Winkel, learning outcomes are evidence of learning success; thus, learning achievement is the maximum result a person achieves after making learning efforts (Winkel, 1996; Jamaludin, 2016). High learning achievement requires a high IQ, and internal factors must also be owned (Hidayatullah et al., 2023). Some people think they must have a high intelligence quotient (IQ) to achieve high learning achievement. However, this is not fully proven because some students have high IQ but low learning achievement; on the contrary, students with relatively low IQ can achieve relatively high learning achievement. IQ is not the only determinant; other factors also determine it (Winarso & Supriady, 2016). Based on some research results and explanations above, self-regulated learning, Grit, and learning motivation can affect student learning achievement.

The difference between this research and previous studies is to find out the Grit variable on learning achievement in economic subjects. In addition, the Grit variable has been widely researched for employees, teachers, and students, so further research will be conducted on high school students. The novelty of this study is that it uses a research population of one high school district in Purworejo Regency, while previous studies only used one school. Therefore, this study examines self-regulated learning and Grit on students' learning achievement in economics.

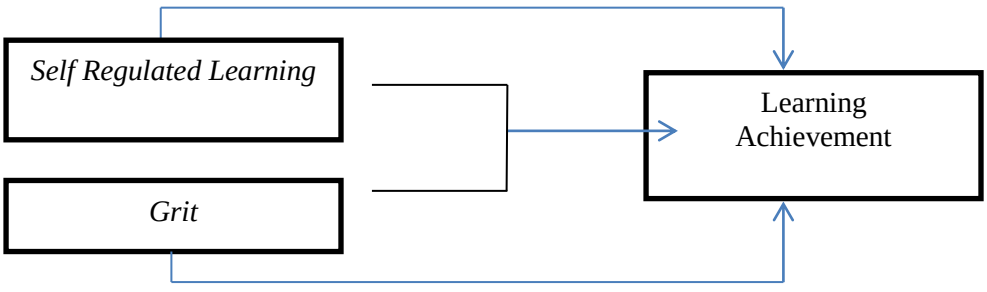

Figure 1. The Conceptual Framework

Research Methods

This Research is a quantitative approach that requires data collection in numbers and statistics. This research was conducted in Purworejo Regency, Central Java public high schools. In the selection of school samples conducted randomly, four schools became the research sample, with as many as 142 students. This study uses primary data derived from the results of questionnaires and tests distributed to respondents.

To collect data using closed questionnaires and tests given to 142 students. The research procedures in this study are distributing questionnaires and tests, analyzing questionnaires and tests, and determining results and conclusions. Instrument measurement uses a 4-point Likert scale, namely (1) Strongly Disagree, (2) Disagree, (3) Agree, and (4) Strongly Agree. 13 statement items represent indicators of self-regulated learning variables, namely training strategies, development, organization, metacognitive regulation, time and learning environment, effort regulation, and help-seeking (Zimmerman, 1989). Twenty statement items represent indicators of Grit variables, namely maintaining interest in the long term, resilience in completing complex tasks, and more effort to achieve goals (Duckworth et al., 2007). Then, measure the learning achievement variable using a test, namely 20 multiple choice questions with 1st grade of high school odd semester economic material of the independent curriculum, namely the learning outcomes of understanding scarcity, understanding the priority scale, and understanding the economic system.

Questionnaires and tests are prepared in Google Forms and distributed directly to respondents via barcode scan. All items in the instrument have gone through validity and reliability tests, and the three variables are declared valid with test results > 0.5 and reliable with test results > 0.70. The difficulty level of each question is classified as a medium category, not too easy, and not too tricky for the test results of distinguishing the power of questions to students classified as sufficient criteria. This study uses the IBM SPSS version 25 application with several series of data analysis, namely, descriptive statistical analysis and inferential statistical analysis, which includes normality test, linearity test, multicollinearity test, heteroscedasticity test, autocorrelation test, and hypothesis testing (t-test and F-test).

Result and Discussion

The classical assumption test is carried out before hypothesis testing, including normality, linearity, multicollinearity, heteroscedasticity, and autocorrelation tests. Based on the data normality test results using the one-sample Kolmogorov-Smirnov Test, the Asymp. Sig. A value of 0.200 > 0.05 means that the data of self-regulated learning, Grit, and learning achievement is usually distributed. For the results of the linearity test, the Deviation from the linearity value of X1 is obtained at 0.297, and X2 is 0.574, which means that both values are more significant than 0.05, so it can be concluded that the regression model passes the linearity test.

The multicollinearity test results obtained the tolerance values of X1 and X2, which are 0.915, while the VIFX1 and VIFX2 values are 1,093. Based on these results, it is known that the acquisition of tolerance values X1 and X2 is greater than 0.10 and the acquisition of VIFX1 and VIFX2 values is less than 10, so it can be concluded that the regression model is free from multicollinearity. For the heteroscedasticity test, it is known that the acquisition of the significance value of X1 is 0.396 and X2 is 0.279. Both significance probabilities are more significant than 0.05, so it is decided that the regression model does not occur heteroscedasticity. For the autocorrelation test, it is known that the calculation value of the D (Durbin-Watson) value is 1.652, which means that it is between 2 or close to 2, which states that there is no autocorrelation.

Table 1. t-test (Partial)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	15.052	8.941		1.684	.000
	Self Regulated Learning	.479	.203	.184	2.360	.020
	Grit	.589	.120	.385	4.924	.000

(Source: Primary data processed in 2024)

The Effect of Self-Regulated Learning on Learning Achievement

Based on Table 1, the significance value of the self regulated learning variable (X1) on the Learning Achievement variable (Y) is 0.020 < 0.05. The results of the self regulated learning statistical t-test obtained the value of t-count > t-table of 2.360 > 1.977, which means that self regulated learning has a positive and significant effect on economic learning achievement.

Based on the results of the t-test which show that the self-regulated learning variable has a positive and significant effect in line with the research of Xu et al., (2023) by synthesizing research evidence; among 73 studies, the influence of self-regulated learning has a positive effect on academic achievement, and 13 other studies were found to have an impact, but not significant. In addition, Bai & Wang (2023) research shows that students who self-regulate learning can effectively monitor and exert efforts to organize learning to achieve better results. Students with self-regulated Learning skills tend to be more independent in the learning process, because they can identify their own learning needs and take the initiative to acquire the necessary knowledge and skills. In addition, this ability to coordinate and exert one's efforts reflects a high level of independence, which is an important aspect of facing academic and daily life challenges.

Through the ability to organize self-regulated Learning, students can develop self-responsibility, intrinsic motivation, and perseverance. They learn to assess their learning outcomes and identify areas for improvement. It influences academic achievement and shapes attitudes and skills that benefit careers and life. Therefore, an emphasis on developing skills to regulate one's learning can be a strong foundation for achieving better educational results. Therefore, teachers also need to increase students' understanding further by introducing different self-regulated learning strategies and supporting students when using these strategies effectively. Thus, students can take responsibility for their learning and become more independent learners, which can result in long-term academic success.

Based on Zimmerman's theory (1989), self-regulated learning is the ability of learners to actively participate in their learning process, both metacognitively, motivationally, and behaviorally. Metacognitively, learners regulate themselves by planning, organizing, instructing, monitoring, and evaluating themselves in learning. Motivationally, learners feel competent, have confidence, and have independence. Meanwhile, behaviorally, learners select, arrange, and organize the environment to be optimal for learning (Sucipto, 2017). Metacognitive encouragement will produce positive results in student academic achievement by increasing knowledge (Bannert et al., 2015). Studies have established a strong positive association between students' self-regulated learning and academic performance. In simpler terms, increased levels of self-regulated learning in students are linked to higher learning achievement. Students with self-regulated learning must be motivated, have better study habits, and can

manage time and resources effectively to achieve their academic goals. Therefore, students must develop self-regulated learning skills to maximize their academic potential. It means that the results of this study accept the first research hypothesis.

The Effect of Grit on Learning Achievement

Based on Table 2, the significance value of the Grit variable (X2) is 0.000 < 0.05. Based on the Grit statistical results-test, the value of t-count > t-table is 4.924 > 1.977, meaning that Grit has a positive and significant effect on economic learning achievement. This research is consistent with findings from Tang et al. (2021) , which show that grit significantly impacts learning achievement, especially in students who show high commitment to their academic goals. In this context, grit can be interpreted as a combination of perseverance, enthusiasm and tenacity in facing learning challenges. The research results of Tang et al. (2021) illustrate that students with a high level of grit tend to achieve higher learning achievements because they can overcome obstacles and maintain focus on their goals. This finding aligns with research conducted by Izzulhaq (2023), which shows a positive correlation between grit level and learning achievement. In other words, the higher the student's grit level, the higher their learning achievement. This positive correlation confirms that the presence of grit can be a key factor in improving student learning outcomes. It is important to note that grit includes the ability to persist in the face of adversity and a long-term commitment to a goal. Therefore, the results of this study provide additional support for the idea that students' persistence and enthusiasm in achieving their academic goals can positively contribute to their academic achievement. Thus, understanding and developing grit among students can be a valuable strategy for improving the quality of learning and academic outcomes.

However, research by Wang et al. (2021) found that Grit can improve students' average learning achievement, although it has less effect among low-IQ students. Grit predicts both learning achievement and academic performance and test-taking anxiety, as measured by Grit scales for children and adults (Sturman & Zappala-Piemme, 2017). Thus, students who remain committed and do not give up on their long-term goals are, on average, more likely to achieve academically and have greater confidence that they can succeed (Wolters & Hussain, 2015). Therefore, students with high levels of Grit tend to be patient, hard-working, and persistent in the face of adversity, increasing their academic success (Lee & Sohn, 2017; Oriol et al., 2017). Based on Duckworth (2007) theory, Grit combines perseverance, persistence, and enthusiasm with long-term goals, which means the Grit factor can support student success in learning. Students with grit are more likely to overcome obstacles and continue working towards their goals despite setbacks or challenges. It ultimately leads to greater success in learning and life. It means that the results of this study accept the second research hypothesis.

Table 2. F-test (Simultant)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5497.623	2	2748.812	19.985	.000[b]
	Residual	19118.574	139	137.544		
	Total	24616.197	141			

The Effect of Self-Regulated Learning and Grit on Economic Learning Achievement

Based on Table 2, the results of the statistical F-test obtained F-count > F-table value of 19.985 > 3.06 and has a significance percentage value of 0.000 < 0.05, which means that self-regulated learning and Grit have a simultaneous and significant effect on student learning achievement variables.

In this study, the attitude observed is self-regulated learning, which includes cognitive strategies, metacognition, self-regulation, and management of time and environment Grit, which includes

consistency of interest and perseverance in trying to learn achievement in economics subjects. This research is consistent with findings from Martin et al. (2022), which confirm that self-regulated learning and grit positively impact student learning achievement. Positive indicators of perseverance in trying, which include elements of grit such as perseverance and enthusiasm, significantly contribute to students' academic achievement. These findings strengthen the understanding that psychological aspects such as the ability to self-regulate and perseverance play an important role in achieving learning success. The research is also in line with the results of studies by Pintrich & Zusho (2007) which show that students' use of cognitive and metacognitive strategies strongly impacts their learning achievement (Wolters & Hussain, 2015). Cognitive strategies involve how students process information, while metacognition involves understanding and managing the learning process. Students use these strategies to cope with academic tasks and monitor their learning progress more effectively. In other words, this research provides a strong basis for recognizing the importance of psychological and cognitive aspects in designing effective educational strategies. Understanding and developing students' abilities to self-regulate, have grit, and use cognitive and metacognitive strategies can improve student learning outcomes. Therefore, approaches that support the development of self-regulated learning and grit and implementing learning strategies that promote cognition and metacognition can contribute positively to students' academic achievement.

Research shows that improving self-regulated learning based on a situation can be achieved by applying well-structured learning concepts (Schunk & Zimmerman, 2008; Martin et al., 2022). Students who regulate their learning tend to use critical thinking strategies, which can encourage students to be active and aware in learning activities so that they contribute more to their academic success (Behar-Horenstein & Niu, 2011; Heidari, 2020; Guo et al., 2023). Students possessing a high level of Grit are inclined to persist in the face of challenges and sustain their efforts towards accomplishing more demanding and long-term goals (Wolters & Hussain, 2015). As Duckworth (2007) explains, the conceptual understanding of Grit, especially the perseverance of learning efforts, has a stable nature from within a person. Nonetheless, learning to stay on task is a skill that students can either develop or not. It can happen because it comes from an interest in the task. Researchers also support the idea that Grit is the strongest variable in academic success and completion of training programs (Duckworth et al., 2019; Guo et al., 2023).

Table 3. Model Summary Statistics

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.473[a]	.223	.212	11.728

Based on Table 3, The determination coefficient test is performed to assess how the independent variables of self-regulated learning and Grit contribute to explaining the dependent variable of learning achievement.Table 4 shows the R Square value of 0.223, which means that the variables of self-regulated learning and Grit contribute to learning achievement by 22.3%. At the same time, the remaining 77.7% is influenced by other variables not discussed in this study.

From the results of the data analysis, it can be concluded that students who can regulate their learning and have a high level of grit tend to achieve higher learning outcomes. Conversely, if students cannot organize learning and have a low level of grit, they tend to obtain lower learning outcomes. This conclusion shows the importance of self-regulated learning and grit in improving student learning achievement. Therefore, in the learning context, teachers have a significant role in continuing to encourage and guide students to implement self-regulated learning and build grit to achieve better learning outcomes.

The results of the research show that the combined influence of self-regulated learning and student Grit during the learning process has a simultaneous impact on learning achievement in economics

subjects in senior high schools in Purworejo district research results show that the combined influence of self-regulated learning and student Grit during the learning process has a simultaneous impact on learning achievement in economics subjects in senior high schools in Purworejo district.

Conclusion

Concluding the previously outlined research findings, it can be inferred that (1) there is a positive and significant impact between self-regulated learning and students' economic learning achievement when considered individually. (2) when examined separately, Grit positively and significantly influences students' economic learning achievement. (3) both self-regulated learning and Grit collectively significantly impact students' economic learning achievement. Based on the study results, suggestions can include teachers providing more direction during the learning process both in and outside the classroom and monitoring the results of each semester, especially for students who get low scores. In addition, it is necessary to help students who have difficulties understanding the subject matter to remain persistent and enthusiastic in facing learning challenges and get even better learning outcomes. One limitation of this study is its focus on only two factors, namely self-regulated learning and Grit, in analyzing their impact on learning achievement. It is recommended for future research to incorporate additional variables influencing learning achievement and to expand the study sample size.

References

Abdulghani, H. M., Al-Drees, A. A., Khalil, M. S., Ahmad, F., Ponnamperuma, G. G., & Amin, Z. (2014). What factors determine academic achievement in high achieving undergraduate medical students? A qualitative study. *Medical Teacher*, *36*(SUPPL.1), 43–48. https://doi.org/10.3109/0142159X.2014.886011.

Alhadi, S., Nanda, W., Saputra, E., Supriyanto, A., & Costa, A. Da. (2018). Self-Regulated Learning : Is it Different between Men and Women Students ? *Psikopeddagogia*, *7*(2), 46–52. https://doi.org/10.12928/psikopedagogia.v7i2.12933.

Ayllón-Salas, P., Fernández-Martín, F. D., & Arco-Tirado, J. L. (2023). Grit as a predictor of self-regulated learning in students at risk of social exclusion. *Current Psychology*, 1-9 November 2023. https://doi.org/10.1007/s12144-023-05418-y.

Bai, B., & Wang, J. (2023). The role of growth mindset, self-efficacy and intrinsic value in self-regulated learning and English language learning achievements. *Language Teaching Research*, *27*(1), 207–228. https://doi.org/10.1177/1362168820933190.

Bannert, M., Sonnenberg, C., Mengelkamp, C., & Pieger, E. (2015). Short- and long-term effects of students' self-directed metacognitive prompts on navigation behavior and learning performance. *Computers in Human Behavior*, *52*, 293-306 November2015. https://doi.org/10.1016/j.chb.2015.05.038.

Bazelais, P., Lemay, D. J., & Doleck, T. (2016). *How does grit impact college students' academic achievement in science? 4*(1), 33–43.

Dent, A. L., & Koenka, A. C. (2016). The Relation Between Self-Regulated Learning and Academic Achievement Across Childhood and Adolescence: A Meta-Analysis. *Educational Psychology Review*, *28*(3), 425–474. https://doi.org/10.1007/s10648-015-9320-8.

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), 1087–1101. https://doi.org/10.1037/0022-3514.92.6.1087.

El-adl, A., & Alkharusi, H. (2020). Relationships between Self-Regulated Learning Strategies, Learning Motivation and Mathematics Achievement, Cypriot Journal of Educational Sciences, 2020. *Cypriot Journal of Educational Sciences*, *15*(1), 104–111. https://eric.ed.gov/?q=learning+strategies&id=EJ1246489.

Guo, W., Bai, B., Zang, F., Wang, T., & Song, H. (2023). Influences of motivation and grit on students' self-regulated learning and English learning achievement: A comparison between male and female students. *System*, *114*, 1–12. https://doi.org/10.1016/j.system.2023.103018.

Harpaz, G., Vaizman, T., & Yaffe, Y. (2023). University students' academic grit and academic achievements predicted by subjective well-being, coping resources, and self-cultivation characteristics. *Higher Education Quarterly*, 1-20 June 2023. https://doi.org/10.1111/hequ.12455.

He, X., Wang, H., Chang, F., Dill, S. E., Liu, H., Tang, B., & Shi, Y. (2021). IQ, grit, and academic achievement: Evidence from rural China. *International Journal of Educational Development*, *80*, 1-11 January 2021. https://doi.org/10.1016/j.ijedudev.2020.102306.

Hidayatullah, S., Buairi, H., Andriani, P., & Mushollin, R. (2023). Pengaruh Kecerdasan Emosional dan Prestasi Belajar Terhadap Disposisi Matematis Pada Mahasiswa Calon GuruMatematika. *Jurnal Ilmiah Matematika Realistik (JI-MR)*, *4*(1), 112–119.

Izzulhaq, B. D., Feronika, T., & Herpi, A. N. (2023). *Hubungan Grit dengan Prestasi akademik siswa*. *3*(1), 165–174. https://doi.org/10.46229/elia.v3i1.

Jamaludin, A. (2016). Perbandingan Hasil Belajar Antara Mahasiswa yang Bekerja Dengan yang Tidak Bekerja Pada Matakuliah Ekonomi Mikro di STIE YPBI Jakarta. *Jurnal Administrasi Kantor*, *4*(1), 198–210.

Khan, Y. M., Shah, M. H., & Sahibzada, H. E. (2020). Impact of self-regulated learning behavior on the academic achievement of university students. *FWU Journal of Social Sciences*, *14*(2), 117–130.

Latipah, E. (2010). Strategi Self Regulated Learning dan Prestasi Belajar: Kajian Meta Analisis. *Jurnal Psikologi*, *37*(1), 110 – 129–129. https://doi.org/10.22146/jpsi.7696.

Martin, H., Craigwell, R., & Ramjarrie, K. (2022). Grit, motivational belief, self-regulated learning (SRL), and academic achievement of civil engineering students. *European Journal of Engineering Education*, *47*(4), 535–557. https://doi.org/10.1080/03043797.2021.2021861.

Oriol, X., Miranda, R., Oyanedel, J. C., & Torres, J. (2017). The role of self-control and grit in domains of school success in students of primary and secondary school. *Frontiers in Psychology*, *8*, 1–9. https://doi.org/10.3389/fpsyg.2017.01716.

Park, D., Tsukayama, E., Yu, A., & Duckworth, A. L. (2020). The development of grit and growth mindset during adolescence. *Journal of Experimental Child Psychology*, *198*, 1–11. https://doi.org/10.1016/j.jecp.2020.104889.

Steinmayr, R., Meibner, A., Weidinger, A. F., & Wirthwein, L. (2014). *Academic Achievment*. 1-16 July. https://doi.org/10.1093/OBO/9780199756810.

Stoffel, J. M., & Cain, J. (2018). Review of grit and resilience literature within health professions education. *American Journal of Pharmaceutical Education*, *82*(2), 124–134. https://doi.org/10.5688/ajpe6150.

Sturman, E. D., & Zappala-Piemme, K. (2017). Development of the grit scale for children and adults and its relation to student efficacy, test anxiety, and academic performance. *Learning and Individual Differences*, *59*, 1-10 October 2017. https://doi.org/10.1016/j.lindif.2017.08.004.

Sucipto, S. (2017). Pengaruh Self-Regulated Learning Dan Dukungan Orang Tua Terhadap Hasil Belajar Peserta Didik Pada Mata Pelajaran Ekonomi Program Studi Ips Sma Negeri Di Kota Jombang. *Jurnal Ekonomi Pendidikan Dan Kewirausahaan*, *2*(2), 236. https://doi.org/10.26740/jepk.v2n2.p236-250.

Takiuddin, M., & Husnu, M. (2020). Grit Dalam Pendidikan. *Jurnal Konseling Pendidikan*, *4*(2), 52–58.

Tang, X., Wang, M. Te, Parada, F., & Salmela-Aro, K. (2021). Putting the Goal Back into Grit: Academic Goal Commitment, Grit, and Academic Achievement. *Journal of Youth and Adolescence*, *50*(3), 470–484. https://doi.org/10.1007/s10964-020-01348-1.

Wang, L. (2021). The Role of Students' Self-Regulated Learning, Grit, and Resilience in Second Language Learning. *Frontiers in Psychology*, *12*, 1-7 Desember 2021. https://doi.org/10.3389/fpsyg.2021.800488.

Winarso, W., & Supriady, D. (2016). Menilai Prestasi Belajar melalui Penguatan Self Regulated Learning dan Kecerdasan Emosional Siswa pada Pembelajaran Matematika. *Jurnal Didaktik Matematika*, *3*(2), 54–66.

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. https://doi.org/10.1007/s11409-014-9128-9.

Xu, Z., Zhao, Y., Liew, J., Zhou, X., & Kogut, A. (2023). Synthesizing research evidence on self-regulated learning and academic achievement in online and blended learning environments: A scoping review. *Educational Research Review*, *39*, 1-17 May 2023. https://doi.org/10.1016/j.edurev.2023.100510.

Xu, Z., Zhao, Y., Zhang, B., Liew, J., & Kogut, A. (2022). A meta-analysis of the efficacy of self-regulated learning interventions on academic achievement in online and blended environments in K-12 and higher education. *Behaviour and Information Technology*, *42*(16), 2911–2931. https://doi.org/10.1080/0144929X.2022.2151935.

Zimmerman, B. J. (1989). A Social Cognitive View of Self-Regulated Academic Learning. *Journal of Educational Psychology*, *81*(3), 329–339. https://doi.org/10.1037/0022-0663.81.3.329.

Copyrights