

Are You Gritty People? A Study of Passion and Perseverance in University Students

**Sukma Adi Galuh Amawidyati, Fatma Kusuma Mahanani, Isnaeni Mas'udah
Vertika Aprilolita and Silviana Irawati**

Department of Psychology, Faculty of Education, Universitas Negeri Semarang, Indonesia
sukmaadi@mail.unnes.ac.id, fatma.psi@mail.unnes.ac.id, isnaeni.masudah26@gmail.com,
vertika.aprilolita@yahoo.com, silviana_irawati99@yahoo.com

Abstract

Grit is a personality trait that affects human attitudes and behavior in various contexts. Researches showed that Grit is a significant predictor of a person's success, both in education and occupation. Grit consists of the consistency of interest and perseverance. The purpose of this study is to describe Grit in university students. The instrument of this study is the Grit Scale based on Duckworth Theory. The participants of this research are 354 students in the city of Semarang. We used a cluster random sampling technique to select the participants of the study. We used descriptive statistics in JASP. The results show that 23,17% of students on the high Grit level, 65,5% of students at a moderate level, and 11,3% on a low level. The implication of this study will be discussed further in this article.

Keywords:

Grit, passion, perseverance, university students

1. Introduction

Individuals need success to achieve a good quality of life. Success can be achieved by being consistent with interest and persevering towards achieving goals (Angela L. Duckworth et al., 2007; Oriol et al., 2017). Working hard, persevering, and striving to achieve long-term goals, maintaining interest is proven to be a successful person (Dweck, 2006; Eskreis-Winkler et al., 2014). Grit consists of Consistency of interest and persistence in achieving long-term goals (A. Duckworth & Gross, 2014; Angela L. Duckworth et al., 2007; Eskreis-Winkler et al., 2014; Vazsonyi et al., 2019). Gritty individuals will set goals and pursue these targets despite experiencing various challenges and several failures. Gritty individuals are also willing to devote more significant effort and attention to achieving the goals they have set (Kalia et al., 2019; Silvia et al., 2013).

However, a study in Indonesia shows that 86.3% of students have low grit degrees, and 13.7% have high grit (Nora Izaach, 2017). The research results by Caesari, Listiara & Ariati (2013) show that low grit has an impact on student organizations' academic performance. Students prefer completing organizational assignments rather than academic assignments, preferring to complete assignments at the end of time, always cheat on friends' assignments, and often skip class (Caesari et al., 2013).

A gritty person can keep the focus, endure adversity, and persist in achieving his goals. People with high grit will be more able to achieve academic success, the ability to survive in a career, and the ability to maintain a marriage (Angela L. Duckworth et al., 2007; Egalite et al., 2016; Lucas et al., 2015).

According to the previous study, students must have high grit. Even if student organizations have many activities outside of the academic process, their grit will encourage them to continue to survive and succeed in achieving academic achievements.

The results showed that grit has a positive correlation with student academic achievement (Alaoui & Fons-rosen, 2017; Amalia, D. Inna, Aviani, 2018). Research by Duckworth et al. (2007) showed a positive relationship between grit and academic success, retention of cadets in rigorous military training programs, and student rankings in national spelling competitions. Grit also has an essential effect on student achievement levels, student engagement, retention, and graduation probability (Angela Lee Duckworth & Quinn, 2009; Maddi et al., 2012; Strayhorn, 2014).

Strayhorn's (2013) study of a positive predictor of test scores for white students at African-American universities is grit. Gritty high school students in Chicago graduate on time (Eskreis-Winkler et al., 2014). Grit predicts the completion of goals despite experiencing obstacles and failures (Eskreis-Winkler et al., 2014; Lucas et al., 2015). Gritty cadets complete a challenging military training program at West Point (Angela L. Duckworth et al., 2007; Angela Lee Duckworth & Quinn, 2009).

Grit is the personality trait group, which, according to Angela Lee Duckworth (2007), is one predictor of student academic success. Someone who has high grit will always focus on the goals that have been set and manage efforts to achieve their goals persistently. Student organization activities have positive benefits for developing soft skills such as leadership, cooperation, or problem-solving. However, students who participate in organizations often experience academic problems. They tend to show low academic achievement, the tendency to skip college, long periods of study, and cheating on classmates' assignments. Students who join organizations show varied academic behavior so that fundamental research is needed to explore grit in students.

2. Literature Review

Grit is a psychological variable in the flow of positive psychology that focuses on the long-term persistence process as an indicator for achieving success. Based on Seligman's idea, Positive psychology was born to help individuals identify and develop their potential, making individuals fulfilling and more productive. It replaces the previous psychology focus, which studies negative aspects of humans such as depression, learned helplessness, and pessimism (Lopez, 2009).

Angela Lee Duckworth researches grit to predict academic and professional success. Grit is a consistency of interest and persistence in achieving long-term goals (Areepattamannil & Khine, 2018; Angela L. Duckworth et al., 2007; Angela Lee Duckworth & Quinn, 2009; Egalite et al., 2016). Grit is a positive non-cognitive trait with general psychological concepts in terms of persistence, persistence resilience, ambition, awareness, and need for achievement (Credé, 2018; Egalite et al., 2016). Grit is the individual's enthusiasm and motivation to achieve long-term goals, resilience in overcoming failure, and persevering in trying to do this that drives individuals to achieve success (Angela L. Duckworth et al., 2007; Von Culin et al., 2014).

Achievement is a task that must accomplish for a gritty person, and his ability is stamina for him. In achieving goals, people will be bored and disappointed when they fail, back off, and look for other goals. However, as a gritty person, he will be consistent in his interests and still strive to achieve his chosen (Almeida et al., 2019; Angela L. Duckworth et al., 2007; Von Culin et al., 2014). Grit is essential for predicting long-term success. Duckworth's research states that people who have high grit have a higher education level and have a high GPA. It means that the higher a person's education level, the higher the grit level.

Duckworth et al. (2007) academic grit is consistency in asking and persistence in achieving long-term goals in the education context. Eskreis, Winkler, Beal & Duckworth (2014) state that grit tends to maintain desire and persistence for long-term goals. Grit is a personality trait consisting of long-term perseverance and passion (Areepattamannil & Khine, 2018; Angela Lee Duckworth & Quinn, 2009; Reed et al., 2013).

Grit uses the motivation intensity theory (Silvia et al., 2013). An effort is a function of two factors in the theory of motivation intensity (Silvia et al., 2013). The importance of success, showing how much effort to spend and difficulty achieving goals, showing one's actual effort (Brehm & Self, 1989; Silvia et al., 2013). In motivation intensity theory, a personality trait such as grit can influence efforts to make goals essential or not and appear more difficult or not (Brehm & Self, 1989; Silvia et al., 2013).

Duckworth et al. (2007) identified two aspects of grit, namely consistency of interest and perseverance of effort. Grit was introduced by Duckworth et al. (2007) as the consistency of interest and persistence in trying to achieve long-term goals. Grit predicts achievement when situations are challenging regardless of their talents. Research in Cadet students in the U.S. Military Academy shows that high grit students have less dropout probability than those with low grit (Angela L. Duckworth et al., 2007; Maddi et al., 2012). Since grit is not related to intelligence, in four separate samples.

The consistency of interest is indicated by the ability to maintain interest in one goal. Grittier people do not change the goals, maintains interest, and are not easily distracted for extended periods (Alaoui & Fons-rosen, 2017; Angela

L. Duckworth et al., 2007). Grittier students continue their education and maintain their main goals. They do assignments on time and focus on the task at hand. Their minds are not easily distracted by new things. They will keep the consistency of long-term interest. They will get maximum results to achieve outstanding academic achievements and achieve their dreams (Angela L. Duckworth et al., 2007; Education, 2018). Persistence was an independent variable from the dependent variable or predictor in the study of goal orientation, self-efficacy, optimistic attribution style, and depletion of self-control resources (Bandura, 1997; Baumeister, R. F., Bratslavsky, E., Muraven, M., & Tice, 1998; Elliott & Dweck, 1988; Seligman & Schulman, 1986). Individuals who have perseverance can accomplish the task even though there are failures and obstacles. They work hard, diligently, always strive to achieve long-term goals, not afraid to face many failures (Angela L. Duckworth et al., 2007). Students can complete challenging assignments, ignore existing obstacles, and still complete individual and group assignments to the maximum effort. They learn to prepare themselves before college, find other references to mastery the challenging courses (A. Duckworth & Gross, 2014; Angela L. Duckworth et al., 2007).

Duckworth et al. (2007) state that the factors that affect grit are achievement, education, age, thoroughness, effortful control, strategy, and growth mindset. Someone who has higher education, mature age, and conscientiousness is less likely to change careers by 35%. Grit has a positive relationship of 25% with GPA or academic achievement. The research means that students who have a high level of grit will have high academic achievement (Duckworth et al., 2007). Education affects a person's grit. Individuals who have a high level of education have a higher level of grit than low education at the same age level. In line with this, someone who has high grit tends to want a high education level (Duckworth et al., 2007(Kanto et al., 2020; Umanailo et al., 2021)). A person's age affects a person's grit level. The more mature a person is, the higher the grit they have compared to young people. Due to increasing age, a person has much experience dealing with a problem (Duckworth et al., 2007).

Duckworth (2011) state that self-control and self-discipline are psychological resources that shape persistence. Self-discipline is the ability to direct self-desire and strength to achieve goals. The individual understands an action plan that must be taken and regulates thoughts and emotions. Meanwhile, self-control is the ability to control, hold impulses and regulate attention when faced with distractions while pursuing goals (Angela Lee Duckworth, 2011). Strategies and tactics for coping with challenges are psychological resources that make students more persistent. The practical, initiative and productive abilities are core capacities by individuals to solve a problem. Individuals will survive when they have strategies and tactics (Egalite et al., 2016; Oriol et al., 2017). Student learning strategies are needed in order to survive in achieving goals. The learning strategy is in the phase of goal setting, strategic planning, implementation, seeing results, and evaluating results.

Yeager & Dweck's research (2012) states that the growth mindset affects student grit level. Duckworth (2007) growth mindset can increase a person's grit. Mindset is a mindset used to view and assess the world, encompassing attitudes, values, dispositions, fundamental beliefs, and ways of perceiving oneself (Dweck, 2006). A growth mindset is a mindset that believes that a person's potential and psychological attributes can develop through more practice and effort in facing increasingly difficult challenges. Have a positive outlook on life. When experiencing failure, they look for strategies and solutions, asking for help when needed (Dweck & Yeager, 2019; Yeager & Dweck, 2012).

3. Methods

3.1 Participants

The total number of participants in this study was 354 college students in X city. The sampling technique used in this study was random cluster sampling. Cluster random sampling is a type of sampling in a population arranged in levels, groups or strata, and specific variables. This sampling technique is randomizing groups, not individual research subjects. The selected group in randomization will become representatives of the population (Azwar, 2017a).

3.2. Research Instrument

This study uses an academic grit scale based on Grit theory constructs by Duckworth (2007). The scale consists of two aspects, namely consistency of interest and perseverance in trying. This scale contains 38 favorable and unfavorable statements. Favorable is a supporting statement, while unfavorable is a statement that does not support it. This scale is in the form of a Likert scale, which contains five choices.

This academic Grit scale uses content validity. Content validity is one form of validity evidence that involves the testing technique for the test content's feasibility or relevance through rational analysis by a competent panel of expert judgment (Azwar, 2015, 2017b). This testing technique involves a competent panel to assess the level of relevance of statements in items to theoretical constructs (Azwar, 2015). The formulation used to calculate the evaluation score from expert judgment is Aiken's V. The following figure is the formula for Aiken's V's content validity coefficient.

This study involved three expert judgments in measuring content validity. Each expert must give a score to calculate each item's validity in the academic Grit scale. The expert judgment qualification in this study is a quantitative researcher who has earned a master's degree in psychology.

Researchers used the formula set by Aiken (1985) to measure the validity limit score level. With the number of expert panels or expert judgment of 3 raters. The limit of the item validity value is 0.50 (Azwar, 2018). So, if the result of the calculation of each item's validity, $p < 0.50$, is declared invalid (Azwar, 2018). The content validity calculation uses the Aiken formula in the academic grit scale ranging between 0.50 - 0.916. The research instrument that has calculated the content validity uses Aiken's validity, then tested its reliability. The number of participants in the instrument trial was 90 students. The reliability test process produces an internal consistency coefficient of Cronbach's alpha of 0.874. The corrected item-total correlation of Academic Grit Scale ranged from 0.306 - 0.639. The instrument field test results showed that 16 items had poor corrected item-total correlation. So the academic grit scale had a total of 22 items with satisfying internal consistency.

The data analysis technique used is to calculate the frequency distribution of each answer choice by making a frequency table to obtain the percentage of the respondent's description Grit to students in X city. The formula used is the statistical test formula, the frequency distribution in which the number of respondents with a characteristic will be compared with the number of samples as a whole.

4. Results and Discussion

We describe the demographic data of study respondents by age, gender, and college major. The following pie diagram illustrates the demographic data of the respondent. Students who participated in the campus organization in this study were between 19 and 21 years old. In this study, the number of respondents aged 19 were 160 students, aged 20 were 108 students, and 86 students were 21 years old.

We categorized the scores from the academic grit scale measurement results. This study uses categorization with hypothetical norms. In this technique, the mean and standard deviation used as material for composing category points are obtained from the measuring instrument (Azwar, 2018). To obtain a categorization of the scale scores, we added up the subjects' answers, calculated the mean total score, and calculated the average total score on the academic grit scale's measurement results. The percentage amount of student organizations based on study major describe in table 1. Based on the hypothetical norm formula, the range score categorization of academic grit showed in table 1 below.

Table 1. Academic Grit Range Score of Academic Grit Scale

| Interval Skor | Interval | Kriteria |
|--|----------------------|----------|
| $(\mu + 1 \sigma) \leq X$ | $80,6 \leq X$ | High |
| $(\mu - 1 \sigma) \leq X < (\mu + 1 \sigma)$ | $51,4 \leq X < 80,6$ | Average |
| $X < (\mu - 1 \sigma)$ | $X < 51,4$ | Low |

The next step is doing the data analysis. Data analysis results show a picture of student academic grit, which is shown in the following table. The data analysis results show a picture of student academic grit, which is shown in the table 2.

Table 2. Academic Grit Criteria of The Respondent

| Interval | Kriteria | F | % |
|----------------------|----------|-----|-------|
| $80,6 \leq X$ | High | 82 | 23,17 |
| $51,4 \leq X < 80,6$ | Average | 232 | 65,53 |
| $X < 51,4$ | Low | 40 | 11,3 |
| | Total | 354 | 100 |

Based on table 2, we can conclude that 11,3% of college students are at a low level of academic grit, 65.53% of college students are at a moderate level of academic grit, and 23,17% of college students are at a high level of academic grit. Furthermore, the researcher conducted further analysis on each component of the grit.

The results of measuring the academic grit variable show that the academic grit of students who participate in the organization is in the medium category. It means that students have consistency of interest and persistence in achieving long-term goals despite experiencing obstacles and difficulties (Angela L. Duckworth et al., 2007; Angela Lee Duckworth & Quinn, 2009; Eskreis-Winkler et al., 2014). This result is in line with the results of the additional analysis on each of the grit components. Additional analysis results show that college students' level of consistency of interest and perseverance is moderate. The results of this study are different from the results of previous studies (Vivekananda, 2017).

The results of this study are different from the results of previous studies. Vivekananda research (2017) participants were medical students, one of Indonesia's most popular majors. It explains that students who choose to study medicine will have a high consistency of interest. Besides that, the medical department is one of the most challenging departments. It has implications for the perseverance of efforts to complete academic tasks. This explains why the results of Vivekananda's (2017) study show that the grit level of medical students is at a high level.

5. Conclusion

Several things affect the level of grit in a person. Previous research results state that mindset and personality are one of the factors that affect grit (Angela L. Duckworth et al., 2007; Reed et al., 2013; Yeager & Dweck, 2012). There was a significant positive relationship between grit and mindset in students (Ryan, 2015). Students with a growth mindset are individuals who believe in the potential to develop with increasingly difficult challenges. They believe in achieving the goal by learning anything. The learning process will encounter challenges and difficulties. However, a growth mindset makes someone believe in overcoming the challenge with effort and perseverance. A growth mindset has a focus on the learning process, not on the drive to be smart. When experiencing failure, they look for strategies and solutions, ask for help from others when needed (Dweck & Yeager, 2019; Yeager & Dweck, 2012).

References

- Alaoui, L., & Fons-rosen, C. (2017). Know When to Fold ' Em : The Grit Factor. *Barcelona GSE Working Paper*: 899.
- Almeida, D. J., Byrne, A. M., Smith, R. M., & Ruiz, S. (2019). How Relevant Is Grit? The Importance of Social Capital in First-Generation College Students' Academic Success. *Journal of College Student Retention: Research, Theory and Practice*. <https://doi.org/10.1177/1521025119854688>
- Amalia, D. Irna, Aviani, Y. I. (2018). Hubungan antara grit dan prestasi akademik pada mahasiswa bidikmisi. *Jurnal Riset Psikologi*, 4(18), 1–15.
- Areepattamannil, S., & Khine, M. S. (2018). Evaluating the Psychometric Properties of the Original Grit Scale Using Rasch Analysis in an Arab Adolescent Sample. *Journal of Psychoeducational Assessment*, 36(8), 856–862. <https://doi.org/10.1177/0734282917719976>
- Azwar, S. (2015). *Penyusunan Skala Psikologi*. Pustaka Pelajar.
- Azwar, S. (2017a). *Metode Penelitian Psikologi* (2nd ed.). Pustaka Pelajar.
- Azwar, S. (2017b). *Reliabilitas dan validitas*. Pustaka Pelajar.
- Bandura. (1997). *Self-efficacy: The exercise of control*. W H Freeman/Times Books/ Henry Holt & Co.
- Baumeister, R. F., Bratslavsky, E., Muraven, M., & Tice, D. M. (1998). Ego depletion: Is the active self a limited resource? No Title. *Journal of Personality and Social Psychology*, 5(74), 1252–1265.
- Brehm, J. W., & Self, E. A. (1989). The intensity of motivation. *Annual Review of Psychology*, 40(1973), 109–131. <https://doi.org/10.1146/annurev.ps.40.020189.000545>
- Caesari, Y. K., Listiara, A., & Ariati, J. (2013). “Kuliah versus organisasi” studi kasus mengenai strategi belajar pada mahasiswa yang aktif dalam organisasi mahasiswa pecinta alam Universitas Diponegoro. *Jurnal Psikologi Undip*, 12(2), 164-175–175. <https://doi.org/10.14710/jpu.12.2.164-175>
- 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. <https://doi.org/10.3102/0013189X18801322>
- Duckworth, A., & Gross, J. J. (2014). Self-Control and Grit: Related but Separable Determinants of Success.

- Current Directions in Psychological Science*, 23(5), 319–325. <https://doi.org/10.1177/0963721414541462>
- Duckworth, Angela 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>
- Duckworth, Angela Lee. (2011). The significance of self-control. *Proceedings of the National Academy of Sciences of the United States of America*, 108(7), 2639–2640. <https://doi.org/10.1073/pnas.1019725108>
- Duckworth, Angela Lee, & Quinn, P. D. (2009). Development and validation of the short Grit Scale (Grit-S). *Journal of Personality Assessment*, 91(2), 166–174. <https://doi.org/10.1080/00223890802634290>
- Dweck, C. S. (2006). *Mindset: The new psychology of success*. Random House.
- Dweck, C. S., & Yeager, D. S. (2019). Mindsets: A View From Two Eras. *Perspectives on Psychological Science*, 14(3), 481–496. <https://doi.org/10.1177/1745691618804166>
- Education, U. D. of. (2018). *Promoting grit, tenacity and perseverance: Critical factors for success in the 21st century*. November, 1–117.
- Egalite, A. J., Mills, J. N., & Greene, J. P. (2016). The softer side of learning: Measuring students' non-cognitive skills. *Improving Schools*, 19(1), 27–40. <https://doi.org/10.1177/1365480215616313>
- Elliott, E. S., & Dweck, C. S. (1988). Goals: An Approach to Motivation and Achievement. *Journal of Personality and Social Psychology*, 54(1), 5–12. <https://doi.org/10.1037/0022-3514.54.1.5>
- 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(FEB), 1–12. <https://doi.org/10.3389/fpsyg.2014.00036>
- Kalia, V., Fuesting, M., & Cody, M. (2019). Perseverance in solving Sudoku: role of grit and cognitive flexibility in problem solving. *Journal of Cognitive Psychology*, 31(3), 370–378. <https://doi.org/10.1080/20445911.2019.1604527>
- Kanto, S., Wisadirana, D., Chawa, A. F., & Umanailo, M. C. B. (2020). Change in community work patterns. *Proceedings of the International Conference on Industrial Engineering and Operations Management*, 0(March), 2496–2502.
- Lucas, G. M., Gratch, J., Cheng, L., & Marsella, S. (2015). When the going gets tough: Grit predicts costly perseverance. *Journal of Research in Personality*, 59, 15–22. <https://doi.org/10.1016/j.jrp.2015.08.004>
- Maddi, S. R., Matthews, M. D., Kelly, D. R., Villarreal, B., & White, M. (2012). The Role of Hardiness and Grit in Predicting Performance and Retention of USMA Cadets. *Military Psychology*, 24(1), 19–28. <https://doi.org/10.1080/08995605.2012.639672>
- Nora Izaach, R. (2017). Gambaran Derajat Grit Pada Mahasiswa Akademi Keperawatan “X” di Kabupaten Kepulauan Aru Roseilla Nora Izaach Fakultas Psikologi, Universitas Kristen Maranatha, Bandung. *Humanitas*, 1, 61–70.
- 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(OCT), 1–9. <https://doi.org/10.3389/fpsyg.2017.01716>
- Reed, J., Pritschet, B. L., & Cutton, D. M. (2013). Grit, conscientiousness, and the transtheoretical model of change for exercise behavior. *Journal of Health Psychology*, 18(5), 612–619. <https://doi.org/10.1177/1359105312451866>
- Ryan, A. D. (2015). *Relationship of grit, volition, and mindset to undergraduate student persistence of nontraditional students*. 1–104.
- Seligman, M. E. P., & Schulman, P. (1986). Explanatory Style as a Predictor of Productivity and Quitting Among Life Insurance Sales Agents. *Journal of Personality and Social Psychology*, 50(4), 832–838. <https://doi.org/10.1037/0022-3514.50.4.832>
- Silvia, P. J., Eddington, K. M., Beaty, R. E., Nusbaum, E. C., & Kwapil, T. R. (2013). Gritty people try harder: Grit and effort-related cardiac autonomic activity during an active coping challenge. *International Journal of Psychophysiology*, 88(2), 200–205. <https://doi.org/10.1016/j.ijpsycho.2013.04.007>
- Strayhorn, T. L. (2014). What Role Does Grit Play in the Academic Success of Black Male Collegians at Predominantly White Institutions? *Journal of African American Studies*, 18(1), 1–10.
- Umanailo, M. C. B., Bugis, M., Lionardo, A., & Sangadji, M. (2021). *Agricultural Land Conversion and the Influence of the Food Supply Chain*. 58, 5518–5525.
- Vazsonyi, A. T., Ksinan, A. J., Ksinan Jiskrova, G., Mikuška, J., Javakhishvili, M., & Cui, G. (2019). To grit or not to grit, that is the question! *Journal of Research in Personality*, 78, 215–226. <https://doi.org/10.1016/j.jrp.2018.12.006>
- Von Culin, K. R., Tsukayama, E., & Duckworth, A. L. (2014). Unpacking grit: Motivational correlates of

perseverance and passion for long-term goals. *Journal of Positive Psychology*, 9(4), 306–312.
<https://doi.org/10.1080/17439760.2014.898320>

Yeager, D. S., & Dweck, C. S. (2012). Mindsets That Promote Resilience: When Students Believe That Personal Characteristics Can Be Developed. *Educational Psychologist*, 47(4), 302–314.
<https://doi.org/10.1080/00461520.2012.722805>

Biography

Sukma Adi Galuh Amawidyati is an Assistant Professor in the Department of Psychology Universitas Negeri Semarang, Indonesia. She earned a Bachelor's degree in psychology from Universitas Gadjah Mada (UGM). She graduated Master's Degree in Psychology from Universitas Gadjah Mada (UGM). She is a psychologist in the educational field. She is interested in cognitive psychology, psychometrics, and educational psychology. Her research interest includes cognitive and memory bias, grit, cyberpsychology, mental health, and measurement. She is a member of HIMPSI (Indonesia Psychology Association), APSI (Indonesia School Psychologist Association), and APSIMETRI (Indonesia Psychometrician Association).

Fatma Kusuma Mahanani is Assistant Professor in Department of Psychology Universitas Negeri Semarang, Indonesia. She earned bachelor degree in psychology from Universitas Diponegoro. She earned a Bachelor's degree in psychology from Universitas Diponegoro. She graduated Master's Degree in Psychology from Universitas Gadjah Mada (UGM). She is a psychologist in the educational field. She is interested in counseling psychology, psychotherapy, and educational psychology. Her research interest includes mental health, school well-being, and child sexual abuse. She is a member of HIMPSI (Indonesia Psychology Association) and APSI (Indonesia School Psychologist Association).

Isnaeni Mas'udah is a student in the Department of Psychology Universitas Negeri Semarang, Indonesia. She earned a bachelor's degree in psychology from Universitas Negeri Semarang in 2019. She is a member of the grand research team about grit with Sukma Adi Galuh Amawidyati. Her thesis is about growth mindset and grit in college students. Now she works as a human resource staff in a private company in Indonesia.

Vertika Aprilolita is a student in the Department of Psychology Universitas Negeri Semarang, Indonesia. She earned a bachelor's degree in psychology from Universitas Negeri Semarang in 2020. She is a member of the grand research team about grit with Sukma Adi Galuh Amawidyati. Her thesis is measuring grit by using a behavioral task: anagram in college students. Now she works as a human resource staff in a private company in Indonesia.

Silviana Irawati is a student in the Department of Psychology Universitas Negeri Semarang, Indonesia. Now she collaborated research about grit in Indonesian college students with her supervisor, Sukma Adi Galuh Amawidyati, for her thesis.