

Career Decision-Making: The Role of Grit and Parental Support

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Abstract

Career decision-making is a process of choosing a career path that involves exploring information, identifying obstacles, and evaluating alternatives in an individual. This process is influenced by several internal (grit) and external (parental support) factors. This study aims to analyze the effect of grit and parental support on career decision-making. A total of 187 students participated in this study. Respondents were selected using purposive sampling techniques. The data collection process was carried out using a Likert scale-based questionnaire consisting of the Grit Scale, Perceived Parental Autonomy Support Scale (P-PASS), and Career Decision Making-Proficiency Scale (CDMPS). The results of the hypothesis test analysis showed that the *F*-value was 27.63 with a significance level of .001 ($< .05$), which indicated that the grit and parental support variables simultaneously had a significant effect on career decision-making. Partially, grit has a dominant contribution of 90.28%, while parental support is 9.72%. These results indicate that the higher an individual's grit, the better the strategy produced to make a career decision.

Abstrak

Pengambilan keputusan karier merupakan suatu proses pemilihan jalur karier yang melibatkan penggalan informasi, identifikasi hambatan, dan evaluasi alternatif dalam diri individu. Proses ini dipengaruhi oleh beberapa faktor internal (grit) dan eksternal (dukungan orangtua). Penelitian ini bertujuan untuk menganalisis pengaruh grit dan dukungan orangtua terhadap pengambilan keputusan karier. Sebanyak 187 siswa berpartisipasi dalam penelitian ini. Responden dipilih dengan menggunakan teknik *purposive sampling*. Proses pengumpulan data dilakukan dengan menggunakan kuesioner berbasis skala likert yang terdiri dari Grit Scale, Perceived Parental Autonomy Support Scale (P-PASS), dan Career Decision Making-Proficiency Scale (CDMPS). Hasil analisis uji hipotesis menunjukkan nilai *F* sebesar 27,63 dengan taraf signifikansi 0,001 ($< 0,05$) yang menunjukkan bahwa variabel grit dan dukungan orangtua secara simultan berpengaruh signifikan terhadap pengambilan keputusan karier. Secara parsial grit memiliki kontribusi dominan sebesar 90,28%, sedangkan dukungan orangtua sebesar 9,72%. Hasil ini menunjukkan bahwa semakin tinggi grit yang dimiliki seseorang, semakin baik pula strategi yang dihasilkan untuk membuat keputusan karier.



INTRODUCTION

Education serves as a bridge for individuals to pursue a career and become professionals in their chosen field. Career planning generally begins in high school. During this period, students struggle to decide which major they are interested in, which will ultimately influence their choice of college

major and future career (Prabowo & Kusumaningsih, 2021). This is supported by Santrock (2007, as cited in Nisai, 2023), who stated that adolescence is a stage of human development during which individuals experience an identity crisis and are ambivalent. A condition known as career indecision occurs when individuals struggle to make decisions about their career choices, leaving them uncertain about their future (Cahyani & Ratnaningsih, 2020). This condition often leads adolescents to make impulsive decisions when choosing between science and social studies majors in school. In line with research by Aqmarina (2018, as cited in Amirudin et al., 2023), the selection of science and social studies majors has a significant influence on students' career decisions. Adolescent career development involves exploring multiple career paths (Rusdi & Putri, 2023). Therefore, adolescents must be well-prepared when making a job decision (Christian & Kustanti, 2022). Ideally, this preparation starts in early high school or adolescence.

High-grit students will choose a career that aligns with their interests and goals and will put in much work to see it through to completion (Wibowo et al., 2020). In addition, high school students are also faced with the task of selecting a major to pursue in college so that later, they can help individuals map out their future careers. Therefore, high school students must possess the skills to make informed decisions, allowing them to choose a career that aligns with their passions. Santrock (2008, as cited in Wulandari et al., 2018) stated that decision-making is an individual's process of evaluating multiple options and choosing one as their preferred choice. This encompasses the constancy of interest and persistence in striving, as well as the persistence and passion of an individual to accomplish long-term goals (Li et al., 2021). The persistence of the individual in working hard and consistency in achieving a goal is commonly referred to as deep grit.

Phenomena that often pose challenges in making career decisions for high school students include the influence of family, peers, gender, academic reasons from teachers, media influence, economic factors, interests, and talents shaped by those closest to them (Kazi & Akhlaq, 2017). Many high school students still encounter mistakes and lack information about the careers they are interested in, which can hinder their career selection. Researchers also discovered this finding during a preliminary study, which involved disseminating questionnaires to 34 students in a high school. The results of this questionnaire indicate that many students remain uncertain about their chosen major and are unsure about their career path. Additionally, not many students have interests that change frequently. Students are faced with a variety of choices, which can be confusing when determining their interests.

Various kinds of conflicts will occur when a person experiences inconsistencies in their career choices (Febriana & Masykur, 2022). The consistency of interest is characterized by being certain and not easily changing, as well as having persistence in desire (Duckworth et al., 2007). Students are the ones who organize and make their own academic decisions. What makes grit distinct from other perspectives is the idea that success stems from a genuine desire driven by a person's efforts to achieve it (Hardani & Setiyawati, 2022). Lucas (2015, as cited in Hardani & Setiyawati, 2022) noted that a high grit value is associated with success. Many students still lack information about job opportunities available to them when majoring in their chosen field of study, and there are still many students who are unclear about the purpose of their chosen field. In other cases, some students feel competent in the major they choose, but on the other hand, they feel incompetent or unable to achieve the major they are aiming for. Individuals with high grit scores are those who do not give up easily when faced with a challenging task, even though it is difficult (Hwang & Yu, 2022).

Apart from having minimal information about job opportunities available, many students are also still confused about determining their career, primarily due to several factors, including peer pressure, the surrounding environment, and a lack of grit in their lives. Other factors that influence career deci-

sion-making include parental support and parenting patterns, which play a significant role in shaping career choices (Wibowo et al., 2020). Children who receive full social support from parents and friends tend to be more adaptable in their career choices. Conversely, the lack of care and support from parents can make them feel pessimistic and less likely to prioritize their careers. In addition, parents also help children develop a sense of confidence to achieve their goals for success. Parenting style is a crucial factor in an individual's development (Du et al., 2023). Good parental support has a significant impact on their development, which can increase their self-esteem, happiness, and emotional control, ultimately affecting the individual's overall growth.

Based on the explanation above, the research results related to grit and parental support for career decision-making continue to show variation in findings. In addition, studies that integrate both variables simultaneously in one research model are still limited, especially in the high school environment in Indonesia. Therefore, this research is considered important to carry out as an empirical contribution to enrich the academic literature in the field of education, aiming to determine the influence of grit and parental support on career decision-making among high school students.

METHODS

This study uses a quantitative approach with a survey method. This study aims to examine the influence of grit and parental support on career decision-making variables. The population in this study consists of 355 active students in grade 10 who have met the criteria that have been set. The data collection technique was carried out through the distribution of a closed questionnaire using Google Forms. This study uses a Likert scale with five answer choices, namely: *strongly agree*, *agree*, *somewhat agree*, *disagree*, and *strongly disagree*. The sampling technique uses the Slovin formula, and the margin of error is 5%. Based on this calculation, a sample of 187 respondents was obtained.

In this study, three main scales were used that had been adapted from previous research, namely career decision-making, grit, and parental support. The career decision-making scale is adapted from the Career Decision-Making Proficiency Scale (CDMPS) developed by Khawaja et al. (2024). The underlying theory of this scale is the career decision difficulties theory proposed by Gati et al. (1996), which measures the level of an individual's ability to make a career decision based on aspects of career decision-making autonomy and career decision-making maturity (Khawaja et al., 2024). Career decision-making is a process of choosing a career path that involves information exploration, barrier identification, and alternative evaluation (Gati et al., 1996). This scale has six items on the career autonomy aspect and 11 items on the career maturity aspect, with a Cronbach's alpha reliability score of .748. Out of 30 items, as many as 13 items are eliminated in this scale.

The parental support scale is adapted from the Perceived Parental Autonomy Support Scale (P-PASS) developed by Mageau et al. (2015). The theories underlying this scale are the psychological control theory put forward by Barber (1996) and the self-determination theory put forward by Ryan and Deci (2000). This scale measures the influence of autonomy support and psychological control given by parents to children in the context of career decision-making based on aspects of autonomy support and controlling parenting. Psychological control, as a criticism, can cause a sense of guilt and threats that make children obey the will of their parents (Barber, 1996). The autonomy support provided to students will cause consideration of adolescent decisions so that parents tend to respect the feelings of children (Ryan & Deci, 2000). This scale has 10 items in the autonomy support aspect and 10 items in the controlling parenting aspect, with a Cronbach's alpha reliability score of .755. Out of 24 items, as many as four items are eliminated from this scale.

The grit scale was adopted from Rusli et al. (2021), which was also adapted from Duckworth and Quinn (2009). This theory is based on the grit scale proposed by Duckworth et al. (2007). This scale

measures an individual's perseverance in facing a challenge to achieve a long-term goal based on the aspects of consistency of interest and perseverance of effort. Grit is the perseverance and consistency of an individual's interest in making an effort to achieve long-term goals (Duckworth et al., 2007). This scale has five items in the consistency of interest aspect and five items in the perseverance of effort aspect, with a Cronbach's alpha reliability score of .741. Out of 12 items, as many as two items are eliminated in this scale.

Validity tests are performed to measure the extent to which the question items in the instrument are able to represent the context being studied accurately. In this study, content validity was used, which was carried out by conducting a trial of 30 respondents to determine the empirical validity of each item using the item-total correlation technique, with the criterion that an item is declared valid if it has a correlation coefficient value of $\geq .30$ (Sugiyono, 2016). Those ineligible items are then corrected or deleted. In this study, the normality test was calculated using SPSS version 25.

The reliability test is carried out with the aim of determining the level of consistency of the instrument in measuring a construct. An instrument is said to be reliable if it has a reliability coefficient of Cronbach's alpha greater than or equal to .60, which indicates a level of consistency that is said to be good and acceptable.

A classical assumption test was carried out to ensure the feasibility of the data in a regression analysis, which includes a normality test, linearity test, multicollinearity test, and heteroskedasticity test. The normality test was calculated using SPSS version 25. To test the hypothesis, multiple linear regression analysis was used to determine the influence of grit and parental support on career decision-making.

RESULTS

Descriptive Characteristics

This study involved 235 respondents, 10th-grade high school students. However, it produced 187 data points that could be analyzed, as 52 data points did not meet the requirements because they did not live with their parents. Of the 187 students, 86 students (45.99%) were male and 101 students (54.01%) were female. Based on age grouping, as many as 117 students (62.57%) were 15 years old, 62 students (33.16%) were 16 years old, and eight students (4.28%) were 17 years old. Of these, 165 students were categorized as living with their parents (87.70%), 19 students (10.16%) living with their mothers, and two students (1.07%) living with their fathers alone. The parental status of each student is as many as 158 students have complete parents (84.49%), students whose father died as many as 15 students (8.02%), as many as three students whose mothers died (1.60%), and as many as 11 students have divorced parents (5.88%).

Normality Test

The normality test aims to find out whether the data on dependent and independent variables has been distributed normally. It can be said to be a normal distribution if $p > .05$; on the other hand, if $p < .05$, then the distribution is said to be abnormal. The criterion for normal distribution data is a value that has a significance of more than .05 (Purnomo, 2016). The normality test was calculated using SPSS version 25. The result of the Kolmogorov normality test was .181. Thus, it can be concluded that the data is distributed normally.

Linearity Test

The results of the linearity test showed that the relationship between grit and career decision-making was linear with a significance value (p) of .001 ($p < .05$). At the same time, the relationship between parental support and career decision-making also showed a linear outcome with a significance (p) of

.000 ($p < .05$). In this study, the normality test was calculated using SPSS version 25. Thus, the results of the linearity test meet the linearity assumption. This allows further regression analysis to be carried out.

Multicollinearity Test

The results of the multicollinearity test showed that there was no multicollinearity between the independent and dependent variables. This can be seen from the value of the variance inflation factor (VIF) of each variable of 1.211 ($VIF < 10$). So, it shows that multicollinearity does not occur in this model. In this study, the normality test was calculated using SPSS version 25.

Heteroscedasticity Test

The heteroscedasticity test on grit and career decision-making showed a significance value (p) of .579 ($p > .05$), then for the relationship between parental support and career decision-making, it had a significance value (p) of .751 ($p > .05$). These results show that heteroscedasticity does not occur in these two models, so the heteroscedasticity assumption is fulfilled and can be continued for the next analysis. In this study, the normality test was calculated using SPSS version 25.

Multiple Linear Regression Test

Based on the results of multiple linear regression analysis, it was obtained that the constant in the model is 24.498. Then, for the value of the regression coefficient on the grit variable of .758, which indicates that every one unit increase in grit will lead to an increase of .758 in career decision-making, assuming parental support remains constant. Meanwhile, the value of the regression coefficient on the parental support variable is .032, which indicates that every one-unit increase in parental support will result in an increase of .032 in career decision-making, assuming grit remains constant. In this study, the normality test was calculated using SPSS version 25.

Hypothesis Test

The hypothesis test was carried out using multiple linear regression tests. This test was conducted to test the influence of grit and parental support on career decision-making. The results of the simultaneous test (F -test) showed that the F -value was 27.63 with a significant level of .001 ($< .05$). In this study, the normality test was calculated using SPSS version 25. These results show that the variables of grit and parental support have a significant effect on career decision-making. In other words, the higher the grit of an individual and the greater parental support the individual gets, the better the individual’s ability to make career decisions.

Table 1.
Hypothesis Test Result

Independent Variables	t -value	Sig. (p -value)	t -table	Conclusion
Grit	6.383	.001	1.973	Significant
Parental Support	.682	.496	1.973	Not Significant

Based on the result of the partial test (t -test), the grit variable showed a t -count value of 6.383 with a significance value of .001. This value is greater than the t -table of 1.973 ($df = 184; \alpha = .05$), indicating that grit has a significant effect on career decision-making. In contrast, the parental support variable had a t -count value of .682 with a significance of .496, which is smaller than the t -table of 1.973. This means that parental support does not have a significant effect on career decision-making among high school students.

Table 2.
Multiple Linear Regression Analysis Results

Independent Variables	B	Beta	t-value	Sig.	Contribution (%)
Constant	24.498	-	-	-	-
Grit	.758	.455	6.383	.001	90.28%
Parental Support	.032	.049	0.682	.496	9.72%

$$R^2 = .231$$

Based on the table above, the value of the determination coefficient (R^2) is .231, which shows that grit and parental support simultaneously contribute 23.1% to career decision-making. The grit variable had a B value of 0.758, a t -count value of 6.383, a significance of .001 ($< .05$), and a Beta value of .455. This shows that grit has a significant influence on career decision-making, with a relative contribution of 90.28%. The parental support variable had a B value of .032, a t -count value of .682, a significance of .496 ($< .05$), and a Beta value of .049. This shows that parental support has a significant influence on career decision-making, with a relative contribution of 9.72%. Thus, it can be concluded that the grit variable exerts a more dominant influence on the variables of career decision-making than the variable of parental support.

The multiple linear regression equations produced are as follows,

$$Y = 24.498 + .758 X_1 + .032 X_2$$

where Y is career decision making, X_1 is grit, and X_2 is parental support.

DISCUSSION

This study aims to examine the influence of grit and parental support on career decision-making. The results of the analysis show that simultaneously, grit and parental support have a significant influence on decision-making in high school students. This study confirms that the career decision-making process is not only determined by an individual's internal factors but also involves external support from the immediate environment, especially family.

Grit is an important factor in assisting students in setting and maintaining long-term career goals. Individuals who have high grit values will tend to have consistent perseverance and effort to achieve their career goals, supported by Wibowo et al. (2020), who stated that students with high grit will plan their careers based on their interests and goals and will put up great effort to see those plans through to completion. This is reinforced by another theory of Duckworth's that individuals who have high grit scores tend to have work diligence and do not give up easily in the face of failure. The failures experienced tend to be considered as a motivation for them to be more active in achieving a goal (Rusli et al., 2021).

On the other hand, the support of parents plays a role in the formation of mature career decisions. This support can be in the form of emotional encouragement, trust, and motivation in the process of developing self-potential. Although in this context, parental support does not directly determine a student's career choice, parental support is still a factor that encourages the formation of confidence and determination in career decision-making. This is consistent with Hardani and Setiyawati (2022), who claimed that although students plan and decide on their academic paths, family support plays a crucial role in the process. According to Wibowo et al. (2020), children who receive full social support from their parents will be more adaptable when it comes to selecting their careers.

The results of this study show that grit and parental support can strengthen students' ability to decide on career choices that are more directed and in accordance with their talents, as well as life goals.

This research indicates the need to strengthen character through the development of grit and to increase the role of parents in providing appropriate support during the period of career exploration.

CONCLUSION

This study shows that grit and parental support simultaneously have a significant influence on career decision-making in high school students, and career decision-making is a career selection process that is influenced by internal and external factors. Grit as a form of individual consistency in achieving long-term goals, while parental support as a form of emotional assistance for students, both play an important role in the process of individual readiness to make career choices according to their abilities and talents. Therefore, strengthening character through grit development, as well as positive support from the environment, especially family, is important in helping students to decide on a career more maturely and in a more targeted manner. Individuals with low grit were more likely to feel confused in deciding on their careers. In contrast, individuals with high grit were more able to process obstacles as motivation in the career decision-making process.

REFERENCES

- Amirudin, Rini, A. P., & Apriliyanto, E. (2023). Pengambilan Keputusan Karier pada Siswa Sekolah Menengah Atas (SMA): Menguji Peranan Prestasi Belajar. *INNER: Journal of Psychological Research*, 3(1), 138–145.
- Barber, B. K. (1996). Parental Psychological Control: Revisiting a Neglected Construct. *Child Development*, 67(6), 3296–3319. <https://doi.org/10.2307/1131780>
- Cahyani, W. N. P., & Ratnaningsih, I. Z. (2020). Hubungan Antara Dukungan Sosial Orangtua dengan Keraguan Mengambil Keputusan Karier pada Mahasiswa Tahun Pertama. *Jurnal EMPATI*, 9(3), 234–241. <https://doi.org/10.14710/empati.2020.28347>
- Christian, Y. A., & Kustanti, E. R. (2022). Hubungan Antara Dukungan Sosial Orangtua dan Pengambilan Keputusan Karir pada Siswa Kelas XI SMA Pangudi Luhur Van Lith. *Jurnal EMPATI*, 11(6), 394–401. <https://doi.org/10.14710/empati.0.36829>
- Du, W., Li, Z., Xu, Y., & Chen, C. (2023). The Effect of Parental Autonomy Support on Grit: The Mediating Role of Basic Psychological Needs and the Moderating Role of Achievement Motivation. *Psychology Research and Behavior Management*, 2023(16), 939–948. <https://doi.org/10.2147/PRBM.S401667>
- 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>
- 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. <https://doi.org/10.1080/00223890802634290>
- Febriana, L. Z., & Masykur, A. M. (2022). Hubungan Antara Dukungan Sosial Keluarga dengan Efikasi Diri Pengambilan Keputusan Karir pada Siswa Kelas XI SMA Negeri 1 Sayung Demak. *Jurnal EMPATI*, 10(6), 390–396. <https://doi.org/10.14710/empati.2021.33217>
- Gati, I., Krausz, M., & Osipow, S. H. (1996). A Taxonomy of Difficulties in Career Decision Making. *Journal of Counseling Psychology*, 43(4), 510–526. <https://doi.org/10.1037/0022-0167.43.4.510>

- Hardani, R., & Setiyawati, D. (2022). A Scoping Review Study to Identify the Effects of Parenting on Development of Grit During Adolescence. *Proceedings of International Conference on Psychological Studies (ICPSYCHE)*, 3, 216–229. Retrieved from <https://proceeding.internationaljournalallabs.com/index.php/picis/article/view/90>
- Hwang, J.-H., & Yu, K.-J. (2022). The Effect of Dental Hygiene Student's Life Stress and Grit on Career Decision-Making Self-Efficacy. *Journal of Korean Society of Dental Hygiene*, 22(1), 73–79. <https://doi.org/10.13065/jksdh.20220009>
- Kazi, A. S., & Akhlaq, A. (2017). Factors Affecting Students' Career Choice. *Journal of Research and Reflections in Education*, 11(2), 187–196.
- Khawaja, S., Javed, R., & Qureshi, F. H. (2024). Development and Validation of Career Decision Making Proficiency Scale. *Journal of Asian Scientific Research*, 14(3), 317–330. <https://doi.org/10.55493/5003.v14i3.5077>
- Li, H., Yu, X., Mei, Y., Liu, X., Li, L., & Luo, N. (2021). The Effect of Grit on Career Adaptability of Chinese College Students Based on the Self-Regulatory Processes. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.795153>
- Mageau, G. A., Ranger, F., Joussemet, M., Koestner, R., Moreau, E., & Forest, J. (2015). Validation of the Perceived Parental Autonomy Support Scale (P-PASS). *Canadian Journal of Behavioural Science*, 47(3), 251–262. <https://doi.org/10.1037/a0039325>
- Nisai, H. (2023). Pengambilan Keputusan oleh Remaja Perempuan (Studi Kasus pada Remaja Akhir dalam Pengambilan Keputusan untuk Menikah). *Jurnal Ilmu Kesejahteraan Sosial: HUMANITAS*, 5(2), 60–79. <https://doi.org/10.23969/humanitas.v5i2.9706>
- Prabowo, K. G., & Kusumaningsih, L. P. S. (2021). Hubungan Antara Dukungan Sosial Orangtua dengan Pengambilan Keputusan Karir Siswa di SMA 10 Semarang. *Prosiding Konstelasi Ilmiah Mahasiswa Unissula (KIMU)* 5, 77–82. Semarang: Universitas Islam Sultan Agung. Retrieved from <https://jurnal.unissula.ac.id/index.php/kimuhum/article/view/17608/5852>
- Purnomo, R. A. (2016). *Analisis Statistik Ekonomi dan Bisnis dengan SPSS*. Ponorogo: WADE Group.
- Rusdi, N. R. A., & Putri, A. C. C. (2023). Penerapan Konseling Kelompok dengan Teknik Self Management dalam Meningkatkan Kematangan Karier pada Siswa SMA NU 1 Gresik. *Jurnal Psimawa: Diskursus Ilmu Psikologi dan Pendidikan*, 6(2), 74–80. <https://doi.org/10.36761/jp.v6i2.3490>
- Rusli, R., Fardana, N. A., & Hendriani, W. (2021). Grit in Medical Professional Education Students. *Jurnal Pendidikan Kedokteran Indonesia*, 10(1), 1–11. <https://doi.org/10.22146/jpki.57068>
- Ryan, R. M., & Deci, E. L. (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *The American Psychologist*, 55(1), 68–78. <https://doi.org/10.1037//0003-066x.55.1.68>
- Sugiyono. (2016). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Bandung: CV Alfabeta.

- Wibowo, D. H., Ambarwati, K. D., & Crescenzo, P. (2020). The Role of Grit and Parent-Child Communication in Career Adaptability. *Psikohumaniora: Jurnal Penelitian Psikologi*, 5(2), 185–196. <https://doi.org/10.21580/pjpp.v5i2.5727>
- Wulandari, S., Hairida, H., & Rasmawan, R. (2018). Deskripsi Keterampilan Pengambilan Keputusan dalam Materi Pencemaran Lingkungan pada Mahasiswa Pendidikan Kimia FKIP Untan. *Jurnal Pendidikan dan Pembelajaran Khatulistiwa (JPPK)*, 7(3), 1–12. <https://doi.org/10.26418/jppk.v7i3.24609>