

Attachment, Empathy, and Forgiveness among High School Students in Yogyakarta

Indah Nurul Ramadhan Khairani*
Fuad Nashori

Department of Psychology, Faculty of Psychology and Socio-Cultural Sciences,
Universitas Islam Indonesia

*Corresponding Author E-mail: 19320194@alumni.uii.ac.id

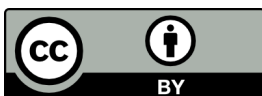
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Abstract: Transgression in adolescents leads to internal conflicts, which in turn accompany external conflicts. This requires adolescents to have skills in managing emotions and resolving conflicts. One of the ways is forgiveness. Forgiveness can have a positive impact on individuals. Forgiveness can be influenced by several factors, including empathy and attachment. This study aimed to investigate the influence of attachment and empathy on forgiveness among high school students in Yogyakarta. This study involved 260 high school students in Yogyakarta. The research design employed in this study was quantitative correlational. The measurement tools used in this study were the Bolton Forgiveness (BFS) Scale by Amanze and Carson to measure forgiveness, the Interpersonal Reactivity Index (IRI) scale by Davis to measure empathy, and the Inventory of Parent and Peer Attachment (IPPA) scale by Armstern and Greenberg to measure attachment. Data collection in this study used a purposive sampling method. The collected data were analyzed using multiple linear regression analysis. The results of this study indicate that attachment and empathy together had a positive influence of 19.4% on forgiveness among high school students in Yogyakarta.

Keywords: Attachment, empathy, forgiveness, students

1. Introduction

The feelings of hurt, hatred, and anger are wounds that become the factors of adolescent deviance. These feelings motivate the adolescents to take revenge in a negative or even destructive way to release their anger. The current phenomenon shows that most adolescents



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have a low level of forgiveness or even none. This was proven in a previous study conducted by Dianlestari (2015) which stated that adolescents, delinquency such as brawls is an international factor that leads to conflict consisting of friction between a group, threat, and desire to take revenge even though initially just for individual mistakes.

Moreover, the study of the low-level forgiveness of adolescents was also conducted by Safitri (2017) who pointed out that one of her participants still feels disappointed, heartaches, and sad, even after more than eight years of his parents' divorcement, and has difficult phase to accept reality. In addition, the previous studies' findings on the low level of forgiveness or individuals' difficulty in forgiving corroborate with Tahrir, Utami, and Ulfiah (2019) that the participants in their research who were victims of bullying have not been able to completely forgive their friends. The participants are assessed as being able to forgive intrapersonally and unable to forgive interpersonally. From the several phenomena that have been mentioned above, the low level of forgiveness is probably caused by the influence of peers, family conflict, and traumatic experiences.

The levels of forgiveness of adolescents are an interesting phenomenon in psychological studies and adolescent development. Forgiveness is an important component of social interactions and psychological well-being which has an impact on the interpersonal relationships between individuals. In adolescent development, forgiveness is an important factor in forming healthy social relationships. Furthermore, forgiveness helps to defuse conflict, strengthens interpersonal relationships, and allows individuals to cope with negative experiences. But, on the other hand, the daily life of adolescents frequently has a low level of forgiveness that perhaps has an impact on psychosocial development.

2. Literature Review

Forgiveness. Forgiveness according to Nashori (2011) is an individual's willingness to eliminate unpleasant things that derive from interpersonal relationships, and grow and develop positive thoughts, feeling, and positive interpersonal relationships with other people who make mistakes. In addition, forgiveness is an individual ability to reduce feelings of avoidance and revenge, as well as having good intentions toward the transgressor (Simonangkir, 2019). Similarly, Amanze and Carson (2020) stated that forgiveness is an individual's ability to release pain and negative emotions by restraining anger and eliminating thoughts of revenge. The aspects of forgiveness by Amanze and Carson (2020) are divided into three aspects, namely coming to terms, and letting go, developing positive feelings, and giving the benefit of the doubt. Correspondingly, McCulloch (2000) also points out the aspect of forgiveness on avoidance, revenge, and benevolence. Individuals who decide to choose forgiveness can be affected by several factors such as empathy (Umar, Daud & Faradillah, 2020), the quality of the relationships (Steven & Sukmaningrum, 2018), humility (Fitriani & Agung, 2018), religiosity (Khasan, 2017), and attachment (Setyawan, 2017).

Empathy. Empathy is an individual's ability to put oneself in someone else's position and appreciate the experience, as well as see the situation from other people's perspectives (Helmut and Nancy, 2021). Davis (1984) also stated that empathy is an individual's ability to recognize

and understand the emotions, thoughts, and attitudes of other people. David (1984) expressed that there are two main aspects of empathy, namely the cognitive aspect and the emotional aspect. First, the cognitive aspects are further divided into perspective-taking and fantasy. Second, the aspects of emotions are also further divided into emphatic concern and personal distress.

Attachment. Attachment toward parents is a positive emotional bond between children and parents as an attached figure who is able to give support, comfort, and security to their child (Setyawan, 2017). Attachment is an adaptive function that provides a fundamental base for children to interact with a wider environment. Bowlby (1997) defined attachment as an action aimed at achieving closeness with another person and usually obtained from the closest person such as parents or caregivers. The aspects of the attachments held by Bowlby have been compiled in the *Inventory of Parent and Peer Attachment (IPPA)* (Armstern & Greenberg, 1987) including communication, trust, and alienation.

Relationship Dynamics of Empathy, Attachment, and Forgiveness. Based on previous studies by Worthington and Wade (1999), and McCullough (2000) revealed that one of the factors that influence forgiveness is empathy. The findings of the research by Ginting and Sakti (2015) found that factors that lead to full forgiveness in the victims of dating violence are sincerity, empathy, and holding fast to religious beliefs. Moreover, the findings of the research by Syarifah and Indiana (2020) defined several things that affect the victims of bullying to forgive the perpetrator, which is through self-reflection, empathy for the perpetrator, or experience that can spark forgiveness. But, at the same time, the researcher also stated that eventually, forgiveness could not occur without a strong willingness of the individual himself. The result of the research carried out by Umar, Daud, and Faradillah (2020) showed that there is a positive relationship between empathy and forgiveness in adolescents after parental divorce. The other research that has been conducted on undergraduate students by Lestari and Agung (2016) which the results of the hypothesis test found that there is a significant positive relationship between empathy and forgiveness, the higher the empathy, is indicated that the higher forgiveness, and vice versa. These results findings are in line with a study by McCullough (1999) stated that empathy is an important factor in forgiveness by the reason of individual empathy could forgive and increase positive feelings toward other people. Together with this research, the research conducted by Silfiasari and Prasetyaningrum (2017) showed that there is a positive connection between empathy and forgiveness in the friendships between regular students and ABK students in inclusive schools.

Another factor that influences forgiveness are the quality of the relationship with other people (Worthington & Wade, 1999). The quality of relationships with other people can be formed as an attachment that the closest person such as parents, peers, or another attached figure has. As conducted by Setyawan (2017) in intermediate school, there is a positive correlation between parents' attachment to the forgiveness of the students in junior high school. The result of his research showed that the higher the attachment of the parents, the higher forgiveness that students have and vice versa. Another review from Umar (2019) said that there is an influence between parents' attachment to forgiveness toward post-divorce adolescents in the Bugis-Makkasar tribe. As well as evidence of a positive correlation between attachment and

forgiveness, on the contrary, other research also showed that both attachment and forgiveness have no correlations. This was proven in the research by Mabruroh (2018) that revealed there is no significant correlation between secure attachment to forgiveness. However, Capan's (2018) research showed that there is a correlation between secure attachment and forgiveness among undergraduate students. Then again, Ammons's (2018) research claimed that forgiveness independently does not affect anxious or avoidant adult attachment, but a significantly moderate correlation between parental attachment and anxious attachment. This reveals that there is a relationship between forgiveness and parental attachment.

Thus, based on the description above, the current study addressed the research hypothesis: (1) There is an influence of empathy and attachment at the same time to forgiveness on senior high school students; (2) There is an influence of empathy to the forgiveness of senior high school students; (3) There is an influence of attachment to the forgiveness of senior high school students.

3. Method

This current research is designed using a quantitative correlational and multiple linear regression analysis is used in this research. This research aims to reveal the influence of attachment and empathy toward senior high school students' forgiveness. The variable that will be tested as a dependent variable in this research is forgiveness. Meanwhile, the independent variables are attachment and empathy. The measuring instruments used in this research are the *Bolton Forgiveness Scale* by Amanze and Carson (2020) for the forgiveness scale, the *Interpersonal Reactivity Index* (IRI) by Davis (1980) for the empathy scale, and *The Inventory of Parent and Peer Attachment* (IPPA) by Armstern and Greenberg (1987) for the attachment scale.

3.1. Research Participants

The participants in this research are 14-19 years old from a senior high school in Yogyakarta. The subjects were obtained through a non-probability sampling design with a purposive sampling technique. There are 260 participants in this research, consisting of 113 male students and 147 female students.

3.2. Data Analysis Technique

Data collection in this study utilized Google Forms and paper-based questionnaires. The collected data was then coded using Microsoft Excel. The analysis of this research was performed using IBM SPSS Statistics 25 for Windows. Two tests were conducted: assumption testing and hypothesis testing. Assumption testing involves assessing the normality of residual data using skewness and kurtosis methods, as well as the Q-Q Plot technique. Hypothesis testing in this study employed regression analysis. Regression analysis is a testing technique used to examine predictive relationships or cause-effect influences. Hypothesis testing in this research utilized multiple linear regression analysis, wherein testing was carried out with more than one independent variable.

4. Results and Discussion

4.1. Assumption Test Results

This research involves quite a large subject therefore, assumption tests use the theory of the *central limit theorem*. The theory of The *Central Limit Theorem* is a theory or principle that indicates that a large sampling distribution curve from a population, then the distribution of the sample average will be centered on the population parameter value and has all the characteristics of a normal distribution (Ulaya, 2020). This theory states that with 30 samples of a population, there has been an approach to a normal distribution. In this research the sample population was 260, then this research met the standard to be normally distributed. In other words, the data in this research is assumed to be normal. This is also supported by the result of the big data test using the techniques of skewness, kurtosis, and Q-Q plot.

First, the results of skewness and kurtosis tests.

Table 1. Skewness and Kurtosis Test Result

	N Statistic	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
Unstandardized Residual	260	-.305	.151	.101	.301
Valid N (listwise)	260				

The acceptable skewness values are where the data curve is assumed to be normal moves between -3 and + 3. Meanwhile, the kurtosis moves in the range between -10 and + 10 (Griffin & Steinbrecher, 2013). Based on table x, it could be assumed that the data curve of skewness and kurtosis in this research is moving normally.

Second, is also applied to the Q-Q Plot below.

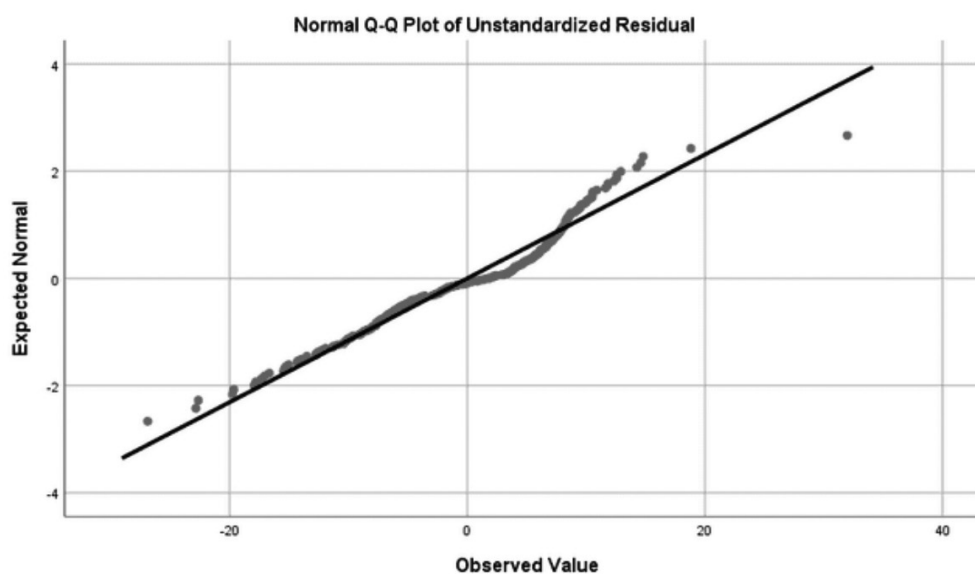


Fig. 1 Normalization Graph Q-Q Plot

The type of use of this plot is to determine whether a set of data is normally distributed or not. If the data is normally distributed, then the points on the Q-Q plot will lie on a straight diagonal line. The figure above shows that the points are dominant on the straight diagonal line. Thus, it could be assumed that the data are distributed normally.

4.2. Hypothesis Test Result

The hypothesis test is carried out using multiple linear regression. It is based on the assumption test that has been done and could conclude that this research is worthy to use of the multiple linear regression method. The results of the hypothesis test are presented below.

Table 2. Multiple Linear Regression Test

Variable	Regression Coefficient (Beta)	Correlation Coefficient	R2	Sig.	Sig. Variable
Empathy	.025	.028	.194	.654	.005
Attachment	.438	.437		.000	

From the table above, it could be revealed that this research has a value $r^2 = 0.194$ which means the attachment and empathy variables contributed 19.4% towards forgiveness. Next, the result of the multiple linear regression shows that increasing attachment and empathy at once will significantly increase forgiveness. The empathy variable showed a value of $p = 0.654$ ($p > 0.05$), which means that empathy significantly does not influence forgiveness.

The results of this research showed that empathy has a low influence value on forgiveness and the correlation test showed that there is no significant correlation between empathy and forgiveness. This means that there are inconsistencies in the previous studies. These results correspond with the previous studies by Jasmine and Rusdi (2020) which were conducted in junior high school, and Chairunnisa (2022) which were conducted on adolescent subjects. Conversely, this could enfeeble the previous study that stated there is the influence of empathy toward forgiveness (Ginting & Sakti, 2015; Silfiasari, 2017; Umar, Daud, Faradilla, 2020).

There is a factor that caused the influence of empathy and forgiveness to be insignificant, but it is not discussed further in this research. Empathy is the ability to understand cognitively and affect other individuals. In the context of influencing forgiveness, it is the same context with, empathy influences the altruistic motivation of individuals to help other individuals (Aini & Wulandari, 2018). So, the cognitive process occurs in the process of forgiveness. In this research, students who have high empathy did not mean that also have a high level of forgiveness. However forgiving attitudes can be developed through empathy. In addition, the results of this research also showed that attachment has a significant influence on forgiveness. It means that the more students have an attachment, the easier to forgive. This research applied two categories of attachment, namely parent attachment, and peer attachment. Both kinds of attachments have a significant influence on forgiveness. After carrying out additional analysis,

the significance of attachments of peers is bigger than parent attachment toward forgiveness. It could happen because during adolescence, the attachment figure is no longer the parents, but friends or peers. This research strengthens the previous study by Setyawan (2017) found that there is a positive correlation between forgiveness and parental attachment. The transgression of the adolescent gives rise to various internal conflicts and is mostly related to external conflicts that become causes or triggers. Students who have a secure attachment from their parents will be able to resolve the conflict and make forgiveness a positive solution that can be developed from secure attachment from parents. A good parental attachment could increase the independence of the adolescent so that adolescents are more sociable and confident in the outside environment (Ikrima & Khoirunnisa, 2021). The family environment, especially parents is the most influential factor that influences the emotional development of the adolescent, so parents are an important factor that influences emotional maturity in adolescents (Utami & Pratiwi, 2021).

5. Conclusions

Regarding the findings of this research, empathy, and attachment at once have a positive influence on senior high school student's forgiveness in Yogyakarta. With the increase of empathy and attachment at once, forgiveness will also increase, and vice versa. But, if empathy is not accompanied by attachment, then there is no positive influence on senior high school students' forgiveness. Despite this, the attachment variable has a positive influence on students' forgiveness without having empathy at once. The other finding in this research is that attachment contributes more than empathy to forgiveness.

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Grit and Academic Procrastination among Undergraduate Students at Faculty X in Yogyakarta

Trisna Anjas Sulistiyo

Hazhira Qudsyi*

Department of Psychology, Faculty of Psychology and Socio-Cultural Sciences,
Universitas Islam Indonesia

*Corresponding Author E-mail: hazhira.qudsyi@uii.ac.id

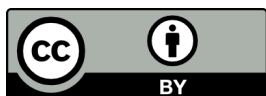
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Abstract: Undergraduate students have the challenge of getting a good grade point average and completing their studies on time. However, in facing these challenges, they are often not well prepared and often delay carrying out tasks. Deliberate and persistent procrastination has undesirable consequences for the procrastinator. Therefore, students need grit to be able to face challenges in studying. This research aims to determine the correlation between grit and academic procrastination among students at Faculty ABC Yogyakarta. Data was collected through an online survey of 140 undergraduate students at Faculty ABC Yogyakarta. The analysis in this study used the Spearman correlation technique which showed a negative correlation between grit and academic procrastination with $r = -0.615$ and a significance value of $p = 0.000$. This research concludes that grit has a significantly negative role in academic procrastination among undergraduate students at Faculty ABC Yogyakarta, amounting to 37.8%.

Keywords: Academic procrastination, grit, undergraduate students

1. Introduction

Students in undergoing studies have a certain vision, both the vision that arises from the individual himself or from the family environment or campus environment. One of the visions that students want to achieve is to be able to get a good grade point average and be able to graduate on time. However, obtaining an achievement index score that meets expectations is not easy, students are required to study, be active, and fulfill the tasks given by the lecturer. Students sometimes cannot overcome these challenges well. With so many assignments, it is



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not uncommon for students to make the decision to study or work on assignments by rushing overnight or postponing completing the assignment. With this decision, of course students will feel very busy as the deadline approaches, and the results of the work done will certainly not be optimal.

Students have power over the vision they have created while studying at university. Students are considered to understand what needs to be done in their studies, where they will be responsible for the demands of the task or avoid these responsibilities. On the way to studying, there is a possibility that students will experience obstacles that affect the learning outcomes they carry out. Obstacles that are not immediately overcome can lead to the behavior of procrastinating work or what is often known as academic procrastination. This is based on the tendency of students to increasingly procrastinate if they get assignments that they feel are increasingly difficult (Hebing, 2016).

Procrastination is an individual's tendency to delay and avoid tasks that have been obtained (Tuckman, 1991). Meanwhile, according to Steel (2010), procrastination is the behavior of deliberately postponing a desired activity even though the individual knows that the delay can have a negative impact on the future. These individuals tend to show a lazy attitude and are more likely to do other, more interesting activities such as watching, playing games, chatting with friends. In another definition, it is explained that procrastination is behavior that is carried out deliberately in delaying work and is carried out repeatedly, with a tendency to choose to do other activities that have nothing to do with the work or things that are needed in carrying out the task (Ghufroon & Risnawita, 2010).

Individuals who carry out procrastination are often referred to as procrastinators. Chu & Choi (2005) classify procrastinators into two, namely passive procrastinators and active procrastinators. Passive procrastinators are individuals who initially have no intention of procrastinating, but still do so because they have difficulty making decisions and do not follow through immediately. In contrast, active procrastinators deliberately postpone and pay attention to other important tasks (Chu & Choi, 2005).

The problem of procrastination in the academic sphere has often occurred, especially among students. Steel (2007) found that the percentage of students who procrastinate reached 80-95%, around 75% considered themselves to like to procrastinate and 50% procrastinated consistently. Harun (2021) conducted research using active students in the 10th semester and above as subjects and showed that the results were 53.5% belonging to the high academic procrastination category. Atiningsih (2008) explained in his research that students at Faculty ABC Yogyakarta carried out academic procrastination in the medium category, namely 48.7% and in the high category 21.4%. Meanwhile, in the psychology study program, it is known that student procrastination is in the high to very high category with a score of 66.4% and in the low category with a score of 20% (Nurlatifah, 2018). Research conducted by Wijaya & Nashori (2015) showed that in the psychology study program there were 43.4% of 320 students whose thesis period exceeded two semesters.

According to data from the Faculty ABC academic section, there are students whose study period exceeds four years. In the psychology study program, 35.8% of the 547 students studied

more than four years. In the communication sciences study program, 82.8% of the 280 students took a study period of more than four years. Meanwhile, in the international relations study program there were 46.7% of the 287 students and in the English language education study program there were 26.9% of the 212 students whose study period exceeded four years. Based on this, academic procrastination really does occur and has an impact on students and institutions.

If academic procrastination is carried out continuously by students, it will certainly have an undesirable impact on the student, one of the impacts is a low achievement index for high procrastination perpetrators (Rengganis, 2017). Several other studies also explain that academic procrastination has an impact on the perpetrators, both positive and negative. According to Ferrari, et al. (1995) explains that procrastination can be done to manage time to be more efficient, temporarily relieve stress and reduce boredom and will work more efficiently. In other research, it is clear that academic procrastination has negative impacts, including that procrastination can cause stress, cause feelings of anxiety and guilt (Ferrari et al., 1995), unsatisfactory grades (Steel, 2007), academic performance and low satisfaction with academic life. (Balkis & Duru, 2017). Grunschel et al. (2013) also explained that academic procrastination results in low satisfaction with studies and leads to an academic life full of stress, anxiety, guilt and regret. If academic procrastination continues, it will have a wider impact on the environment and educational institutions. The higher the academic procrastination carried out by students, the higher the delay in graduating (Cahyono, 2020). In this regard, higher education institutions will experience a decline in reputation.

Academic procrastination is influenced by two factors, namely, internal factors and external factors (Ghufron & Risnawati, 2010). Internal factors include physical conditions and psychological conditions, while external factors include conducive environmental conditions and parenting styles. According to Wijaya & Tori (2018), students postponing their assignments is probably not because they have no planning or lack of awareness of negative consequences, but because they have low energy and willpower. Previous research has investigated many protective factors from academic procrastination, such as family environment (Uzun et al., 2022), self-regulation, self-efficacy, life satisfaction, hope (Kandemir, 2014) and grit (Septania et al., 2018).

Grit is one of the factors predicted to reduce academic procrastination. Grit is closely related to persistence or long-term goals (Duckworth et al., 2007). In carrying out academic studies, grit is shown as a strong work force against existing study challenges, defense of effort and interest over a long period of time even though in its implementation there are failures, difficulties and obstacles in the process of achieving goals. A student who has grit is able to view success as a marathon by utilizing stamina. When disappointment and boredom strikes, individuals with grit will continue to persevere to achieve success (Septania et al., 2018). Grit having a positive character will have an impact on academic procrastination behavior (Septania et al., 2018).

Grit can be developed in students in several ways, including developing grit internally and externally. Duckworth, et al. (2007) explains that individuals can develop grit internally, namely with passion, practice, purpose and hope. Students can develop by strengthening their goals, developing themselves through practice and doing a task wholeheartedly (passion), and grit will grow if someone has a strong hope for success. On the other hand, external factors are no

less important in cultivating grit in individuals, including parenting for grit, the playing field, a culture of grit (Duckworth et al., 2007).

As something that helps in achieving student success in facing assignments, grit is theoretically related to and can have an influence on students' academic procrastination behavior. Grit, which functions as a positive ability, will interact with students' procrastination patterns (Septania et al., 2018). Grit is one thing that can prevent and reduce procrastination behavior carried out by students. Students who have grit will show high work ability to face the challenges and problems they face. Apart from that, students who have grit will continue their efforts and interest for a long time even though they experience failure, difficulties and obstacles in their implementation. Based on the description of the background, the researcher formulated the research problem as follows: "Is there a relationship between grit and academic procrastination among students at the Faculty ABC Yogyakarta?"

2. Literature Review

Students need a sense of tenacity and perseverance to overcome challenges in pursuing their studies. Grit may act as a protective factor against procrastination. Grit can be defined as a sense of strength, tenacity, patience and perseverance in helping students overcome challenges and set long-term goals. Perseverance is an effort to overcome the first failure to achieve a goal (Attia et al., 2020). Grit is needed by a student to be able to consistently achieve planned study goals. One thing students can do is do their assignments optimally and not exceed the deadlines that have been set. In accordance with the aspects of grit which explains that persistence will form an attitude of consistency towards the long-term goals that individuals make, including in carrying out tasks.

Solomon & Rothblum (1984) explained that students procrastinate because they are influenced by several things, namely fear of failure. This is related to the grit aspect according to Duckworth, et al. (2007) theory, namely perseverance of effort which can be interpreted as an individual's determination to achieve goals despite facing obstacles and failure in achieving goals. From Solomon & Rothblum (1984) explanation, procrastinators carry out procrastination because they are afraid of facing failure. Individuals who have perseverance of effort will show a hard working attitude even though they face obstacles or failures so that these individuals will avoid academic procrastination.

The grit aspect explained by Duckworth, et al. (2007), namely consistency of interest, says that individuals can regulate interest or attention in achieving a goal to be achieved. If someone focuses on the target they have created, that individual will be consistent in the steps that have been planned to achieve that goal. However, individuals who tend to engage in academic procrastination will easily divert their interests and goals. This is supported by the theory put forward by Lay (Surijah & Tjunjing, 2007), which explains that procrastination is the behavior of delaying completing a task even though the individual has planned to complete it.

Based on the explanation above, it can be seen that both aspects of grit are related to academic procrastination, and it can be indicated that grit has a protective role against

academic procrastination. This statement is also strengthened by research conducted by Marufi (2023), which reports that grit has a negative correlation with academic procrastination in students. Therefore, in this study grit is considered as an independent variable and academic procrastination is the dependent variable.

3. Method

3.1. Respondents

Respondents in this research were active students who were studying at the Faculty ABC Yogyakarta with a total of 140 respondents, male and female. Respondents in this study were aged 18-23 years and from the 2017-2022 class. Respondents consisted of majors in Psychology, Communication Science, IP Communication Science, International Relations, IP International Relations and English Education. Researchers screened respondents who filled in the questionnaire scale. The number of respondents was previously 142 to 140 people because the respondents filled in the scale incorrectly.

This research uses a sample that has a representative population, where the sample describes the state of the population or reflects the state of the population optimally. The sample is a subset of the research population used in research because often not every member of the research population can be measured (Kazerooni, 2001). The selection of Faculty ABC students as subjects in this research was motivated by the high demands faced by students so that they often experience difficulties in fulfilling study demands and the findings of previous research that used Faculty ABC students as research respondents.

Table 1. Respondents

No	Category	Description	Frequency	Percentage (%)
1	Age	18 years old	4	2.8%
		19 years old	7	5%
		20 years old	9	6.4%
		21 years old	35	24.8%
		22 years old	51	36.2%
		23 years old	34	24.1%
		Total	140	100%
2	Gender	Male	56	40%
		Female	84	60%
		Total	140	100%
3	Study Program	Psychology	71	50.4%
		Communication	12	8.5%
		Communication IP	16	11.3%
		English Education	10	7.1%
		International Relation	25	17.7%
		International Relation (IP)	6	4.3%
		Total	140	100%

No	Category	Description	Frequency	Percentage (%)
4	Year	2017	1	0.7%
		2018	25	17.7%
		2019	81	57.4%
		2020	16	11.3%
		2021	6	4.3%
		2022	11	7.8%
	Total		140	100%

3.2. Measurement

The academic procrastination scale in this study uses an adaptation of the Tuckman Procrastination Scale (TPS) by (Kurniati, 2022). This scale refers to 3 aspects consisting of the tendency to delay completing tasks, the tendency to avoid discomfort and experience difficulty in doing unpleasant things, and the tendency to blame others for the unpleasant circumstances experienced. The items in this scale consist of 16 items which are divided into 12 favorable items and 4 unfavorable items. Each item is equipped with five alternative answers, namely Very Unsuitable (STS), Not Appropriate (TS), Neutral (N), Suitable (S), and Very Suitable (SS). Scores start from Very Inappropriate (STS) answers with a score of 1 to Very Suitable (SS) answers with a score of 5. The higher the total score obtained, the higher the level of procrastination. The Tuckman Procrastination Scale (TPS) adaptation scale used in this study has a Cronbach alpha reliability coefficient of 0.90.

The results of the discriminatory power test on the academic procrastination scale with a total of 16 items showed that items number 9, 13 and 14 had coefficients of -0.31 to 0.15. Based on this, items number 9, 13, 14 need to be dropped, because according to Azwar (2021) items that have good validity are those that have a corrected item total correlation value above 0.25. Apart from these items having coefficients ranging from 0.29 to 0.62, the discrimination power can be considered quite satisfactory. The reliability test was carried out again with 13 items and obtained a Cronbach alpha result of 0.792. This value is considered reliable because it has a value of >0.6 (Priyohadi et al., 2018). Therefore, it can be concluded that after carrying out a reliability test on 16 items, it was found that 13 items were declared valid and reliable for measuring the level of academic procrastination in students.

The scale used to measure the level of grit uses an adaptation of the Duckworth scale by Priyohadi et al. (2018). This scale consists of two aspects, namely Consistency of Interests and Perseverance of Effort. The number of items used in this research was 8 items, consisting of 4 favorable and 4 unfavourable items. The scale used is in the form of a Likert scale with answer choices: very inappropriate (STS), not suitable (TS), neutral (N), suitable (S), and very suitable (SS). Scores for answer choices start from very inappropriate (STS) with a score of 1 to very suitable (SS) with a score of 5.

The results of the reliability test on the Grit-S scale with a total of 8 items have obtained a composite reliability value of 0.82 (>0.7). In line with these results, the Grit-S scale also shows a loading factor value of 0.43 to 1.00. According to Haryono (2017) loading factor values ≤ 0.4

must be eliminated. Therefore, it can be concluded that the Grit-S scale is declared valid and reliable for measuring the level of grit in students, and nothing has been invalidated.

3.3. Data Analysis

Data analysis was carried out using statistical methods with the Statistical Packages for Social Science (SPSS) version 26 for Windows program. The data obtained will then be analyzed using assumption tests which include normality tests and linearity tests. The normality test is carried out to find out how the data from the research sample is distributed. Meanwhile, the linearity test is carried out to determine the linear relationship between variables. Next, researchers will carry out hypothesis testing to examine the relationship between grit and academic procrastination.

4. Results and Discussion

4.1. Results

Hypothesis testing was carried out with the aim of finding out whether there was a relationship between grit and academic procrastination in students at the Faculty ABC Yogyakarta. Based on the results of the assumption tests carried out in this research, data was produced that was not normally distributed, reliable and linearly related. It can be concluded that this research data does not meet the assumption test, so the correlation technique used is the non-parametric Spearman's rho correlation technique via SPSS for Windows version 26. If the significant value is below 0.01 then there is a relationship between the two variables studied. The following are the results of the correlation test carried out by researchers.

Table 2. Result of Spearman's Rho Correlation Test

Variable	r	r ²	p	Description
Grit dan Prokrastinasi Akademik	-0.615	-0.378	0.000	Significant have negative correlation

The results of the analysis above show that the coefficient of determination (r^2) is -0.378 and the correlation coefficient (r) is -0.615 with a significance value of 0.000 ($p > 0.05$). This can be interpreted as meaning that there is a negative correlation between academic procrastination and grit of -0.615. The correlation that occurs in these two variables is a negative correlation, so it can be interpreted that the higher the level of grit, the lower the level of academic procrastination that occurs in students at the Faculty ABC Yogyakarta. Therefore, it can be concluded that the hypothesis in this research can be accepted.

This research also carried out additional analysis which aimed to determine the correlation between aspects of the grit variable and aspects of the academic procrastination variable and carried out a correlation test between aspects of the grit variable and the procrastination variable. The correlation test between aspects of the independent variable and the dependent variable was carried out using Spearman analysis via SPSS version 26. The following are the results of the correlation analysis between aspects of the independent variable and the dependent variable.

Table 3. Result of Correlation Test Between Grit Aspects and Academic Procrastination Aspects

	Delay completing tasks	Avoiding Tasks	Blaming others
Consistency of Interests	r = -0,521 (p=0.000)	r = -0,383 (p=0.000)	r = -0,237 (p=0.002)
Perseverance of effort	r = -0,577 (p=0.000)	r = -0,534 (p=0.000)	r = -0,237 (p=0.002)

The table above shows the results of the correlation test for each aspect of the independent and dependent variables. The grit aspect is Consistency of Interests and Perseverance of effort, while the academic procrastination aspect is delaying completing assignments, avoiding tasks and blaming others. Based on the intercorrelation test between aspects, it shows that the Consistency of Interests aspect has a negative correlation with aspects of academic procrastination, namely delaying completing assignments, avoiding assignments, and blaming others. Consistency of Interests has a negative correlation with delaying completing tasks with a correlation coefficient of $r = -0.521$. The Perseverance of Effort aspect shows a negative correlation with the aspects of delaying completing tasks, avoiding tasks, and blaming others. Perseverance of effort has a negative correlation with delaying completing tasks with a correlation coefficient value of $r = -0.577$. The Perseverance of effort aspect has a negative correlation with the task avoidance aspect with a coefficient value of $r = -0.534$. From the results of the correlation test between the grit aspect and the procrastination aspect, it can be concluded that the grit aspect has a negative and significant correlation with every aspect of academic procrastination.

Table 4. Result of Correlation Test Between Grit Aspects and Academic Procrastination

Aspects	r	p	Description
Consistency of Interests	-0,525	0,000	Negative correlation (p<0,01)
Perseverance of effort	-0,614	0,000	Negative correlation (p<0,01)

The table above shows the results of the correlation test between the grit aspect, namely Consistency of Interests, and academic procrastination which has a correlation coefficient value of $r = -0.525$ with $p = 0.000$ ($p < 0.01$). So from this it can be seen that the Consistency of Interests aspect has a negative correlation with the academic procrastination variable or it can be interpreted that individuals who have a consistent attitude towards interests will tend to avoid academic procrastination. In the results of the correlation test between the Perseverance of Effort aspect and academic procrastination, the correlation coefficient value was $r = -0.614$ with $p = 0.000$ ($p < 0.01$). So it can be concluded that the Perseverance of effort aspect has a negative correlation with the academic procrastination variable or it can be interpreted that individuals who are determined to achieve their goals will tend to avoid academic procrastination.

4.2. Discussion

This research aims to test whether there is a relationship between grit and academic procrastination in students at the Faculty ABC Yogyakarta. Based on the normality test, it was found that the data distribution in this study was not normally distributed in the grit variable. This is based on the existence of extreme high data and extreme low data on filling in the grit scale. With a non-normal distribution of the grit variable, the hypothesis test was carried out using the nonparametric Spearman's rho. The results obtained were that there was a negative correlation between grit and academic procrastination in students at the Faculty ABC Yogyakarta. The results of this analysis can be interpreted as meaning that the higher the grit a student has, the lower the level of academic procrastination carried out by students at the Faculty ABC Yogyakarta. Therefore, the research hypothesis that has been prepared can be accepted.

This research is in accordance with the results of previous research conducted by Marufi (2023) which revealed that there was a negative correlation between grit and academic procrastination in preparing student theses. This research is also consistent with the results of Harun's (2021) research which obtained a significant negative correlation between grit and academic procrastination. This is also reinforced by the research results of Septania et al. (2018) who stated that there was a negative correlation between grit and academic procrastination in students at the Faculty of Psychology, Muhammadiyah University of Lampung.

Students who have grit will avoid academic procrastination. This is in line with research by Marufi (2023), Septania et al. (2018), and Harun (2021) who explain that grit provides one of the factors that can reduce academic procrastination in students. Based on this, it can be explained that students who have grit in carrying out their studies can avoid academic procrastination. Where the grit variable is associated with a positive character, namely strong work ability to face the challenges faced, adversity and obstacles in the process undertaken. This is in accordance with the concept presented by Duckworth et al. (2007) that psychological factors influence an individual's success in facing the challenge of completing a task. Psychological factors that can influence success in completing a task depend on the presence or absence of positive character within the individual himself. One of the positive characters that can be developed in individuals is the concept of grit.

According to Steel's (2007) explanation, procrastination behavior is associated with a gap between the individual's intentions and actions. The greater the difference between the plan that has been designed and its implementation, the higher the procrastination. Gollwitzer et al. (2010) explained that there are four main obstacles in realizing goals or intentions, namely starting an action (getting started), being consistent on the path (staying on track), stopping (calling a stop), and not forcing yourself (not overextending oneself). Student Those who choose to carry out procrastination experience difficulties in maintaining their commitment to continue their plans according to the predetermined schedule.

In general, individuals who are undergoing undergraduate studies are in the early adulthood phase (emerging adulthood). This period occurs in the age range of around 18-25 years and is characterized by experimentation and exploration (Santrock, 2011). During this period, students

as early adult individuals experience many changes that occur within themselves, both within themselves and in their surrounding environment. Santrock (2011) explains that early adulthood is characterized by exploration in their identity, instability in romantic relationships, work and education, focus on their own lives, not considering themselves teenagers or complete adults, and they have the opportunity to change the direction of their lives. This change and instability is a challenge for students, in addition to the challenges related to studying.

According to Duckworth (2018), grit can be developed from within in four ways, namely through interest, practice, goals, and hope. From environmental conditions, grit can be taught through parental care, learning experiences, and cultural context (Duckworth, 2018). Hwang & Nam (2021) have collected a number of strategies that have proven effective in increasing grit levels in academic contexts. These are teaching grit, reflecting on past failures, practicing a growth mindset, setting goals, doing exercises that have specific goals, reducing media use, practicing emotional regulation, and finding interests and how to maintain them over the long term.

In the research, additional analysis was carried out in the form of a correlation test between aspects of the grit variable and the academic procrastination variable. This test was carried out to see whether or not there was a correlation between aspects of the grit variable and academic procrastination. The results of the correlation test between the Consistency of Interests aspect and the academic procrastination variable show a negative correlation. These results mean that individuals who have high Consistency of Interests will have less academic procrastination. This is also supported by research by Kurniawan (2013) which states that interest and attention to goals influence academic procrastination. The second aspect of the grit variable, namely Perseverance of effort, has a negative correlation with the academic procrastination variable. These results are strengthened by research conducted by Murti & Raihana (2023) which states that persistence in trying has a negative correlation with academic procrastination.

In this study, additional analysis of the intercorrelation between aspects of the two variables was also carried out. This test was carried out to see whether or not there was a relationship between aspects of the two variables, namely grit and academic procrastination. Based on the analysis that has been carried out, it shows that the Consistency of Interests aspect has a negative correlation with delaying completing tasks. These results can be interpreted as meaning that individuals who have Consistency of Interests or the ability to maintain interest will avoid the behavior of delaying completing tasks. This is in line with research conducted by Nábělková & Ratkovská (2015) which explains that Consistency of Interests or which can be interpreted as the ability to maintain willpower has a negative correlation with delays in completing tasks.

In the results of the correlation test between the Perseverance of Effort aspect and the aspect of delaying doing tasks, negative correlation results were obtained. This can be explained that the higher an individual has Perseverance of effort or it can also be interpreted as resilience in trying and optimism in achieving high goals, the lower the individual will delay in completing tasks. This is confirmed by research conducted by Anhar (2017) which explains that optimism in trying has a negative correlation with delays in completing tasks.

The results of the correlation test between the Perseverance of Effort aspect and the Task Avoidance aspect obtained negative correlation results. This can be explained that individuals who have Perseverance of effort or it can also be interpreted as a sense of resilience in making efforts and optimism towards a high goal, then these individuals tend not to engage in academic procrastination. This is confirmed by research from Valenzuela et al. (2020) which explains that persistence has a negative correlation with task avoidance behavior.

This research still has several limitations. The limitation of this research is the non-normal distribution of the data, which is caused by the finding of extreme high and extreme low data on the grit variable. There is a possibility of social desirability when respondents fill out the questionnaire even though the researcher has minimized this by allowing initial data filling. This study also had respondents consisting of several departments at the Faculty ABC Yogyakarta where the ratio of the number of respondents was uneven. Another limitation in this research is also the reference source related to data on procrastination at the Faculty ABC Yogyakarta because not many other studies have used Faculty ABC students as research respondents.

5. Conclusions

Based on the results of the research that has been conducted, it can be concluded that there is a negative correlation between grit and academic procrastination. This can be interpreted as meaning that the higher the grit a student has, the lower the academic procrastination carried out by the student. Conversely, the lower the level of grit a student has, the higher the academic procrastination carried out. Therefore, the hypothesis proposed in this research can be accepted. This research provides implications for the practice of educational psychology on how to develop the character of grit in an academic context, including reducing the possibility of academic procrastination.

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