

The Correlation between Personality and Critical Thinking Ability of Junior High School Students

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Abstract

This study aims to determine: (1) the students' personalities, (2) the students' critical thinking ability, and (3) the correlation between students' personality and their critical thinking ability. The random sampling approach was used to choose the sample of 40 students. The instruments used were questionnaires and tests. Correlational examination with the informative plan is used to figure out the relationship between the factors and the outcome by utilizing a quantitative strategy. The study's findings suggest: (1) The personality profile of students shows a significant number of differences between thinking personality and feeling personality. Where there were more students with type thinking personality (60.5%) than feeling personality (39.5%). (2) The critical thinking ability of the students was at "Good" Level (3) Significantly negative correlations between students' personalities and critical thinking skills were found. ($r = -.445$). The finding indicated that the higher level of personality, the lower of critical thinking ability.

Keywords: *Personality, Critical Thinking, Ability.*

1. Introduction

In the education world, one of the main concerns of educators is students' critical thinking ability. Students' experiences with learning activities and course design play a role in how well their critical thinking ability develops. According to Rifai and Rosadi (2022) shows several factors influence critical thinking namely, the curriculum influences critical thinking, Students influence critical thinking and educational facilities affect critical thinking.

One of the things that must be developed in the world of education, especially from the student aspect, is critical thinking ability. Murat (2016) states that every generation is more dependent on education since the world is becoming both more complex and technically advanced. The

ability to think critically is widely acknowledged as being an extremely important stage in every field of study, especially in recent decades. As a result, this study makes a general recommendation regarding the importance of critical thinking ability.

Every learner learns in a distinctive manner. Each student will have a different way of understanding the material given in the class. Each student has a unique personality, which has a big impact on how they approach each work, communicate in class during conversations with the teacher or other students, and remember the content. According to Nechita et al (2015) states that personality traits have an indirect and direct impact on academic success. Outlining the mix of components that work as a whole, as the individual actually does, beyond theoretical

delimitations, and aspects that come from addressing even those factors that have a weak or indirect impact are more significant than recognizing the strong and independent influence.

Both personalities feeling and thinking is a way of responding to everything in life. Freda (2017) States that There is a strong correlation between pupils' personality characteristics and their junior high school level English achievement. The type of personality that exists is feeling and thinking. Maya et al (2021) states that with a correlation coefficient of 0.667, there is a relationship between students' learning outcomes in the human movement system content and their critical thinking abilities. This demonstrates that there is a strong positive association between critical thinking abilities and student learning results.

Knowing the correlation between personalities that focuses on feeling-thinking will certainly provide significant benefits to teachers and students. The moment teacher knows the relationship between these variables, it will help students develop their critical thinking abilities, it will undoubtedly become a unique reference in the teaching process. Learning materials will be created in accordance with each student's personality. the process of learning will reveal a new aspect according to the personality of each student so that it will be more targeted in achieving its goal of increasing critical thinking skills which has become one of the goals in education.

Different views will occur when, by not even finding a correlation between personality focused on feeling-thinking, it also becomes a special reference for teachers in the learning process to provide equal portions for each student without discriminating in the learning process to achieve the common goal of improving critical thinking of students. Likewise, students will certainly get a learning process that is right on target when we know whether or not there is a correlation between personality focused on feeling-thinking and critical thinking. Therefore, it is crucial to look at how these two factors relate to one another.

2. Literature Review

2.1. Personality

Personality is vital to the educational field. How students learn or socialize within the scope of their learning. How a teacher can find out about the personality of his students and make an appropriate teaching design. Paula (2020) states that, After controlling the kind of learning strategy and the type of wellbeing, personality is the best predictor of academic performance, which tells school policies and decision-makers that it is crucial to promote personality development in teenagers to increase academic performance.

Psychology is a science that studies personality. Psychology is able to show the differences that each person has in terms of personality. This is something that is difficult to change so that it affects everyday life. According to Harni (2018) Psychology uses the term "personality" to describe how a person behaves in daily life. The development and alteration of a person's personality parallels human growth and development. Because of this, personality can be evaluated. Psychometric tests are one method of assessing personality.

Personality is a complex character that everyone has without exception. The individual character is the things that differentiate from the others. To show differences in individual characters associated with individual behavior, therefore traits are used to categorize them. Traits undoubtedly have an impact on how people react to their environment, how they repeat particular behaviors, and how their actions might persist for a long time before becoming habits.

According to Santrock (2018) The five general trait dimensions or domains that students' personality qualities fall under are openness, conscientiousness, extraversion, agreeableness, and neuroticism. The Five Factor Model (FFM), according to other academics, is a thorough taxonomy of personality traits, which are propensities to exhibit dependable patterns of thoughts, feelings, and behaviors.

Feeling and thinking ideas are two basic and equally important things. These two concepts are often combined with other personality concepts in the development of personality type. Then, it creates a functional variation. Jung in Geyer (2013) analyzed several functional variations of the development of this basic aspect which are known as Extroverted Thinking, Introverted Thinking, Extroverted Feeling, and Introverted Feeling are the four different personality types. The introvert-extrovert and thinking-feeling personality types were combined to create this personality type.

2. 2. Critical Thinking Ability

Critical thinking ability is one of the skills a learner has to have. This ability becomes very important considering the magnitude of its influence on student development, including in the world of education. The findings of a study by Azizah et al. (2021) on the relationship between students' critical thinking abilities and learning motivation and their academic achievement have been used to support this. The study discovered a favorable relationship between students' critical thinking abilities and learning motivation and academic achievement.

Jonathan et al (2020) on his book says that To think critically is to critically assess information, arguments, and circumstances in order to create new knowledge, understandings, hypotheses, and beliefs that are reliable and insightful. Considering the theory, it can be seen that critical thinking is not only receiving information, but rather processing incoming information to provide information that is more developed than previous information.

Good critical thinking can undoubtedly make a big difference in life, especially for pupils who need to be able to analyze the information their teacher has offered. According to Zohre (2014), there is a strong correlation between learning styles, critical thinking, and academic performance. Utilizing teaching strategies that are in line with the learner's preferred learning

style is advised in light of the expanding significance of critical thinking in enhancing professional competence.

Having the ability to think critically for a student is something that is needed recently so it must be one of the main concerns for a teacher, as well as how to improve that ability. According to Sladana (2016), it is crucial to set up a classroom at the start of the 21st century that promotes collaboration, open discourse, and acceptance of other opinions and perspectives.

3. Research Methodology

Correlational research was performed in the execution of this study to determine the relationship between variables and provide a quantitative explanation for the findings. The researcher attempted to determine the relationship between critical thinking skills as a dependent variable and personality as an independent variable.

In order to determine if a student's personality was more inclined toward feeling or thinking, the researcher used a questionnaire to build up this thesis' technique and research setup. Second, to determine the level of critical thinking ability used a test. Then, based on the results of the questionnaire and test, a quantitative correlation study is the most suited strategy for this research. The discussion of the result's justification and interpretation comes last.

3. 1. Instrument Analysis

Personality is an independent variable based on MBTI questionnaire data. The researcher used a questionnaire as an instrument to distinguish between thinkers and students with feelers. As a result, a score was automatically assigned to the students towards either feeling or thinking, returning a feeling-thinking ratio with a total of 20 points per participant. The questionnaire has 20 questions containing two answer choices.

The test was conducted to measure students' critical thinking abilities. In analyzing the test's outcome, evaluating a student's test score is a step to obtain information from each student which is selected based on the results of categories through a personality test. The study employed tests that contained 30 multiple choices, where every response with the correct answer gets 1 point. The researcher used Dwi & Ermayanti's (2016) category measurement in the table below to determine the students' level of critical thinking ability:

3. 2. Correlation Analysis

Correlation analysis was applied to ascertain the relationship between the personality of the

students' focus on Feeling-Thinking and their critical thinking ability. When measuring quantitatively with the aid of SPSS tools, the researcher used the test score for variable Y and the result score of the questionnaire for variable X, because it is probably the most common statistical data analysis software package used in educational research and it is available at most institutions of higher education.

To ascertain the relationship between a student's personality and their capacity for critical thinking ability, the meaning of a given correlation coefficient from Gay, et.al (2012).

Table 2. The Criteria of Correlation

No.	Score	Categorized
01	81 – 100	Very good
02	61 – 80	Good
03	41 – 60	Fair
04	21 – 40	Bad
05	0 – 20	Very bad

4. Findings

4. 1. The Students' Personality

The findings of the questionnaire analysis in this study were used to determine the students' personality. Participants in this study included the ninth grade of SMP Negeri 1 Watansoppeng which consists of 171 students. However, only 152 students participated in this study. According to the results of the student personality survey, 60 pupils (or 39.5%) are classified as having a feeling personality. The remaining 92 students (60.5%) are classified as having a thinking personality. In brief, the results of the questionnaire showed that the thinking personality was the most widely perceived personality type.

4. 2. Critical thinking ability of the Students

The ninth-grade students who took part in this study of SMP Negeri 1 Watansoppeng of whom 152 students are present. However, this

test of critical thinking only had 40 participants. as the sample of this study. The sample was chosen by the use of random sampling. There were 30 questions in the critical thinking test. The test's results reveal that the highest score was 29, and the lowest was 9. Participants' average scores were 18.400, with a 5.4856 standard deviation. The accumulated percentage obtained from average score was 61.33. Therefore, it can be inferred from the results of these percentages that grade IX pupils' capacity for critical thought is high of SMP Negeri 1 Watansoppeng was at the "Good" level.

4. 3. The Correlation Coefficient

According to the Pearson Product Moment Correlation Coefficient, the relationship between personality and critical thinking skills was negatively correlated. The obtained r-obtained (-.445) has a lower correlation coefficient than the table's r. (0.2573). The significance level (sig.2tailed) was.004 at that

point. Therefore, p (.004) was less than .05. It indicates that H_0 was refused while H_1 was approved. Or to put it another way, correlation analysis revealed a significant negative association between students' personality and their critical thinking ability at the level of "moderate" correlation.

5. Discussion

These findings on personality were corroborated by research in the same field, specifically by Miklková (2018), who discovered that there are more thinkers than feelers in his study.

The high level of the thinking personality category from the learning process components at school may have an impact on the study's findings. During the learning process at school, they will be accustomed to thinking about solving all problems during the learning process. Suhirman et al (2020) The generalization of their study's findings revealed that problem-based learning with a focus on character had an impact on students' higher-order thinking abilities and character. Other studies have also found that the process inside education can form characters that can become student personality types, namely Indartono (2011) OB is an effective course to increase student character in higher education. Whereas character education can be accelerated by using e-learning in delivering OB courses.

According to Kumano et al. (2018), the students were classified as advanced thinkers in 41.6% of cases, practicing thinkers in 30.6% of cases, beginning thinkers in 25% of cases, and challenged thinkers in the remaining cases. Student critical thinking was categorized as practicing thinking. They have the mental capacity to evaluate their own plan at this stage of developing critical thinking.

The achievement of a "good" level in students' critical thinking ability can be caused by the student's learning environment. This study focused on grade IX students since they would

receive more encouragement from teachers and schools at this level to prepare well for final examinations. Zivkovic (2016) Strong critical thinking abilities are required of the students in order to identify the fundamental causes of issues and come up with workable solutions. A critical thinking model is intended to assist those students in honing their thinking abilities and gaining readiness for a multifaceted, complicated society.

As a result of the correlation at a "moderate" level indicate a correlation that was not strong between personality and critical thinking ability. Students must also good at other aspects including motivation, intelligence, anxiety, and external circumstances since personality type (feeling and thinking) was not the only component that affected critical thinking abilities (teaching methods and classroom environment and others). According to Ali (2012), a variety of characteristics, including a student's personality, motivation, attitude, and IQ level, might affect their performance in learning a language.

6. Conclusion

Following the study's findings and analyses, the following conclusions can be made: The personality profile of students at SMP Negeri 1 Watansoppeng shows a significant number of differences between thinking personality and feeling personality. Where there were more students with type thinking personality (60.5%) than feeling personality (39.5%). The critical thinking level of students at SMP Negeri 1 Watansoppeng was generally at the "Good" level with the accumulated percentage obtained from the mean score is 61.33. A significantly negative correlation was found between the personality and critical thinking ability of students at SMP Negeri 1 Watansoppeng (r -.445). The finding indicated that the higher level of personality, the lower of critical thinking ability.

References

- Ali, A. D. (2012). Acquisition of language skills and personality types: A correlational study. *Ma'arif Research Journal*, 1-18.
- Azizah, N. R. U., Budi & Hastuti, B. (2021). The relationship between critical thinking skills and students learning motivation with students' learning achievement about buffer solution in eleventh grade science program. *Journal of Physics: Conference Series*. doi: 10.1088/1742-6596/1842/1/012038
- Creswell, J. W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (5th ed). Upper Saddle River, NJ: Person Education, Inc.
- Dwi, S. & Ermayanti. (2016). Tingkat Kemampuan Berpikir Kritis Peserta Didik Setelah Penerapan Model Pembelajaran Student Achievement Devisions (STAD) pada Siswa Sekolah Menengah Atas (SMA). *Prosiding Seminar Nasional Quantum*, 2447(1511): 175-182
- Gay, Lorraine R, G., Mills, E., & Airasian, P. (2012). *Educational Research: Competencies for Analysis and Applications the tenth Edition*. Boston: Pearson.
- Geyer, P. (2013). *Fundamentals of Personality Type: C. G. Jung and Psychological Type*. Conference Paper, DOI: 10.13140/2.1.2923.2009, Melbourne, Australia.
- Indartono, S. (2011). The Effect of E-Learning on Character Building: Proposition for Organizational behaviour Course. *Jurnal Pendidikan Karakter*. Tahun I, Nomor 1.
- Murat, K. (2016). The Significance of Critical Thinking Ability in terms of Education. *International Journal of Humanities and Social Science*. Vol. 6, No. 7.
- Maulani, N., Sahril, S., & Aeni, N. (2022). Correlation between Language Learning Strategies and Thinking Styles on Learning Outcomes of Senior High School Students. *Journal of Excellence in English Language Education*, 1(3).
- L. Mutakinati, I. Anwari, Y. Kumano. (2018). Analysis of Students' Critical Thinking Skill of Middle School through STEM Education Project-Based Learning. *Jurnal Pendidikan IPA Indonesia*. Vol 7, No 1.
- Miklikova, H. (2018). *Feeling-Thinking Balance and Inquiry Learning*. Research of University of Twente, Drienerlolaan 5, 7522 NB Enschede (The Netherlands).
- Paula. (2020). Students' Personality Contributes More to Academic Performance than Well-Being and Learning Approach—Implications for Sustainable Development and Education. *European Journal of Investigation in Health, Psychology and Education*.
- Nechita, F. Alexandru, D. O. Turcu-Stiolica, R & Nechita, D. (2015). The Influence of Personality Factors and Stress on Academic Performance. *Current Health Sciences Journal*. <https://www.ncbi.nlm.nih.gov/pmc/article/PMC6057531/> (accessed September 28, 2022).
- Rifai, M., & Rosadi K. I. (2022). Literature Review Factor Affecting Critical Thinking: Curriculum, Students. *Dinasti International Journal of Education Management and Social Science*. Volume 3, Issue 5.
- Santrock, J. W. (2018). *Educational psychology*. McGraw-Hill Education New York.
- Schultz, P. D & Schultz, E. S. (2009). *Theories of personality* (9th ed.). United States of America: Wadsworth Cengage Learning. Retrieved from http://www.psychlab.net/uploads/4/5/8/3/4583362/theories_of_personality.pdf.
- Ziegler, S. A., Cheryan, S., Plaut, V. C., & Meltzoff, A. N. (2014). Designing classrooms to maximize student achievement. *Behavioral and Brain Sciences*, 1(1): 4-12.
- Zivkovic, S. (2016). A Model of Critical Thinking as an Important Attribute for Success in the 21st Century. *International Conference on Teaching and Learning English as an Additional Language*,

GlobELT 2016, 14-17 April 2016,
Antalya, Turkey.
Zuckerman, Marvin & Glicksohn Joseph
(2016). Hans Eysenck's personality model

and the constructs of sensation seeking
and impulsivity. *Personality and
Individual Differences*, Volume 103,
December 2016, Pages 48-52