

The Comparison of Intelligence Levels between Male and Female Students at SMA Negeri 5 Sorong Regency

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ABSTRACT

This research is an ex post facto study which aims to find out whether there are significant differences in the level of intelligence between male and female students at SMA Negeri 5 Sorong Regency. The population in this study was all students of SMA Negeri 5 Sorong Regency, totaling 157 people, with a total sample of 67 people. The sampling technique used purposive sampling technique. The results showed that there was no significant difference in the level of intelligence between male and female students with sig. (2-tailed) 0.439 at the sig level. α 0.05.

Key Words: Intelligence Level, Male Students, Female Students

INTRODUCTION

Intelligence is one of the mental, mental or intellectual abilities of humans. Intelligence enables individuals to solve problems tailored to life's needs. Human intelligence is the ability to acquire, recall, and use knowledge to understand abstract and concrete concepts and relationships between objects and ideas, as well as apply knowledge appropriately. A person's intelligence is usually expressed in an intelligence number, namely Intelligence Quotient (IQ) (Purwanto, 2010).

The term intelligence is very familiar in the world of education and learning. This is because education is aimed at children with various intelligence abilities. Educators must understand the diversity of students' intelligence. Understanding diversity is necessary to be able to provide appropriate services to achieve educational goals (Purwanto, 2010).

Intelligence and success in education are two interrelated things. Children who have high intelligence will usually have impressive achievements in their class, and with their achievements they will find it easier to achieve success. Intelligence tests can be used for school and college entrance selection. Intellectual capacity is always a consideration whether someone is accepted or not, because it is believed to influence the ability to think logically, the ability to analyze, and the ability to solve problems in their work (Mangiwa, Wungouw & Pangemanan, 2014).

Gender differences make each individual different from other individuals, such as men are different from women in many aspects including intelligence, interests, memory, emotions and will. In general, men are more active, giving, protecting, imitating the person they love and are more interested in intellectual matters. Meanwhile, women tend to be passive and accepting, want to be protected, admire

the person they love, are more interested in emotional matters and tend to try to please other people (Suryabrata, 2008).

LITERATURE REVIEW

According to the Big Indonesian Dictionary (KBBI), intelligence or intelligence means the power of quick and precise reactions or adjustments, both physically and mentally, to new experiences, making the experience and knowledge already possessed ready to be used when faced with new facts or new conditions. Intelligence can also mean a person's ability to use memory, knowledge, experience, understanding, reasoning, imagination and decisions in solving problems and adapting to new situations (Kwartolo, 2012).

Intelligence is a measure of how an individual behaves. Intelligence is measured by individual behavior, interpersonal interactions and achievement. Intelligence can be defined in various ways: (1) the ability to think abstractly, (2) the ability to consider, understand and reason, (3) the ability to adapt to the environment, and (4) the total ability of an individual to act deliberately and rationally in the environment (Thornburg, 2018).

Gardner in 1983 stated that there are seven multiple intelligences known as the Theory of Multiple Intelligences, which consist of linguistic, logical-mathematical, musical, kinesthetic, visual-spatial, interpersonal and intrapersonal intelligence. Although initially there were 7 types of intelligence, in his book "Are There Additional Intelligences?" in 1998, he added "natural intelligence" as the eighth type of intelligence, and some experts also added "emotional intelligence" or "spiritual intelligence" as the ninth type of intelligence (Saricaoglu, 2009).

Sex differences in intelligence have been an important and controversial topic of study in the field of human intelligence. First, studies examining sex differences in intelligence must use participants from random representative samples. Most samples used in intelligence research lack good representativeness, and doubt is cast on the results also because of the sample composition. Indirect effects of sex differences in intelligence variance. However, most research into sex differences has focused on direct mean differences and fewer have investigated differences in variance. Important contributions to the analysis of sex differences in IQ score variance were published for example (Iliescu et al., 2016).

The difference in learning outcomes between boys and girls in the fields of mathematics, natural sciences and language is due to the fact that at the age of 13 to 17 years there is rapid development in the fields of mathematics and natural sciences for boys, while girls develop in the field of science. nature and a little mathematics. This difference occurs because boys have a good visual level while girls have perfect verbal skills. Based on research on differences between men and women in academic biology, that there are differences in brain structure and hormone production between men and women because of these differences,

research shows that the components of the brain that are responsible for processing verbal information make women superior in ability. verbal (Gorman, 2006). The results of research conducted by Susanto, et al (2014) show that kinesthetic intelligence is dominant in male respondents, while musical intelligence is dominant in female respondents.

METHOD

Design and Samples

This research is ex post facto research. This research was carried out at SMA Negeri 5 Sorong Regency. The population in this study was all students of SMA Negeri 5 Sorong Regency, totaling 157 people, with a total sample of 67 people. The sampling technique used purposive sampling technique.

Instrument and Procedure

The research instrument uses a psychological test, namely the CFIT Test (Culture Fair Intelligence Test) scale 3A. Data collection techniques in this research were collected through intelligence tests.

Data Analysis

Data processing on the results of students' intelligence levels is carried out using the following steps: The instrument used to collect data on students' intelligence levels is an IQ test, namely the CFIT test (Culture fair intelligence test) scale 3A. To obtain valid data regarding the intelligence level of students at SMA Negeri 5 Sorong Regency, the intelligence level is calculated based on the test results given and then processed based on a predetermined score table. The criteria used to determine students' intelligence level categories are presented in the following table:

Table 1 Categorization of Student Intelligence Levels

| IQ Score | Category |
|-----------------|-------------------------------|
| >130 | Vey Superior |
| 120 – 129 | Superior |
| 110 – 119 | Above Average |
| 90 – 109 | Average |
| 80 – 89 | Below Average |
| 70 – 79 | <i>Borderline</i> |
| < 69 | <i>Intellectual Deficient</i> |

Source: Adapted from Wechsler in Saputra (2017)

RESULT AND DISUSSION

The process of collecting data on the intelligence level of male and female students was carried out by giving an IQ test, namely the CFIT test (Culture fair intelligence test) scale 3A, then processing it with descriptive statistics using SPSS version 22 for Windows. Descriptive statistical analysis of intelligence levels between male and female students can be seen in the following table:

Table 2. Descriptive Statistics Of Intelligence Levels Between Male And Female Students

| Descriptive Statistics | Statistical Value | |
|------------------------|-------------------|--------|
| | Male | Female |
| N (sample size) | 32 | 35 |
| Maximum Value | 118 | 120 |
| Minimum Value | 95 | 93 |
| Average | 106,28 | 107,66 |
| Median | 106,5 | 108 |
| Varians | 44,01 | 59,70 |
| Standard Deviation | 6,63 | 7,73 |

Based on the table above showing the results of descriptive statistical analysis of the intelligence levels of male students with a sample size of 32 students, it is known that the maximum score obtained was 118, the minimum score was 95, with an average score of 106.28. The median or middle value is 106.5, the variance is 44.01 and the standard deviation is 6.63.

The total sample of female students was 35 students, it is known that the maximum score obtained was 120, the minimum score was 93, with an average score of 107.66. The median or middle value is 108, the variance is 59.70 and the standard deviation is 7.73. The data from the CFIT (Culture fair intelligence test) calculations for male and female students is then grouped into seven categories based on the scores obtained. This data can be seen in table below.

Table 3 Frequency Distribution and Percentage of Intelligence Levels of Male and Female Students in Class XI of SMA Negeri 5 Sorong Regency

| Score Intervals | Amount | | Percentage (%) | | Category |
|-----------------|--------|----|----------------|-------|-------------------------------|
| | M | F | M | F | |
| ≥ 130 | 0 | 0 | 0 | 0 | Very Superior |
| 120-129 | 0 | 2 | 0 | 5,71 | Superior |
| 110-119 | 13 | 14 | 40,63 | 40 | Above Average |
| 90-109 | 19 | 19 | 59,38 | 54,29 | Average |
| 80-89 | 0 | 0 | 0 | 0 | Below Average |
| 70-79 | 0 | 0 | 0 | 0 | Borderline |
| ≤ 69 | 0 | 0 | 0 | 0 | <i>Intellectual Deficient</i> |
| Jumlah | 32 | 35 | 100 | 100 | |

Data Source: Tabulation of CFIT test calculation data

Information:

M : Male

F : Female

Based on the table above, it shows that of the 32 samples of male students, 13 people are in the above average category with a percentage of 40.63%, and 19 people are in the average category with a percentage of 59.38%. Based on these data, it indicates that the intelligence level of male students in class XI of SMA Negeri 5 Sorong Regency is in the average category.

The sample size of 35 female students, it can be seen that the maximum score is 120, the minimum score is 93, with an average score of 107.66 and a standard deviation of 7.73. Based on these data, it indicates that the intelligence level of female students in class XI of SMA Negeri 5 Sorong Regency is in the average category. The description of the differences in intelligence levels between male and female students based on Independent Samples t-Test analysis shows that the probability value is sig. (2-tailed) or p value, namely 0.439, which is greater than the specified significance probability value α of 0.05. Based on decision-making rules, namely if the significance value or sig (2-tailed) is > 0.05 , it can be concluded that "There is no significant difference in the level of intelligence/cognitive intelligence between male and female students."

The results showed that there was no difference in intelligence levels between male and female students. This is in line with research conducted by Watss et al (2011) which states that there is no significant difference between the IQ levels of men and women. Research conducted by Mangiwa, Wungouw, & Pangemanan (2014) shows that the intelligence levels of men and women are not significantly different and are in the average category. Research conducted by Escorial et al (2015) shows that men and women have the same level of intelligence, even though men have significantly larger brains than women. The same thing was also stated by Brody in Colom et al (2002) that in general gender does not affect a person's intellectual abilities.

CONCLUSION

Conclusions from the description of this research need to be drawn to provide a comprehensive picture of the results of the research that has been carried out. The conclusion that can be put forward is that there is no significant difference in the level of intelligence between male and female students with sig scores. (2-tailed) 0.439 at the sig level. α 0.05.

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