

## Intelligence Level Nexus towards Students' Thinking Maturity of SMK Trisakti Makassar

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### ABSTRACT

The main purpose of this research is to know the existence of intelligence level nexus towards students' thinking maturity of SMK Trisakti Makassar. The type of this research was a correlation study involving two variables. It was a scientific study in which a researcher investigated associations between variables. It was looking for variables that seemed to interact with each other, so that when we could see one changing, we had an idea of how the other would change. The findings indicate that  $F_{count} \frac{AQA_{reg} (b/a)}{AQA_{res}} = F_{count} = \frac{154.31}{21.59} = 7.15$ . As a result  $F_{count} > F_{table}$ , namely:  $7.15 > 3.98$ . Based on the above findings, a conclusion can be drawn that generally, children having high intelligence can conduct and solve their tasks quickly and successfully. In contrast, children having low intelligence generally cannot handle their tasks quickly.

**Keywords:** The impact of intelligence level, Thinking maturity

### INTRODUCTION

The intelligence is an ability taking place in the earliest life period. In the children's daily development process, they have different abilities in conducting their activities and solving their problems. The intelligence belonging to every individuality is a sort of the individual behavior related to the intellectual ability. This individual behavior illustration refers to the children's speaking, walking, thinking, taking decision, doing something, reacting to all things coming from their intrinsic and extrinsic themselves as being stated by Alfred, B.(1911) that intelligence is a kind of ability to lead the thought or action and to change the action purpose if the action has been done.

In line with the above background, the researcher of this study is interested in carrying out a research entitled: "Intelligence Level Nexus towards Students' Thinking Maturity of SMK Trisakti Makassar."

### Problem Statement

Based on the background of this research, the problem statement is formulated through an alternative hypothesis as follows: "Is there any effect of intelligence level towards the students' thinking maturity at SMK Trisakti Makassar?"

### Research Purpose

This research aims at recognizing the availability of the impact of intelligence level towards the students' thinking maturity at SMK Trisakti Makassar.

### The Usefulness of the Research

The worth of this research is to dig the students' intelligent potential and intellectual that can be developed and implemented by the teachers, and the research findings can be considered as the research problems, seminar, and discussion towards increasing students' capability, especially for their thinking maturity.

### REVIEWS OF RELATED LITERATURE

As indication sources in carrying out this study, the previous studies are displayed first, and then some theories and experts' statements are displayed concerning with the topics.

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## **Previous Studies**

One of previous studies revealed in this research was Wescler’s research. He (2005) conducted a research of intelligence at a Junior High school. His findings indicated that the students were able to react directionally, to think rationally, and to face their environment effectively. By outline, it could be concluded that intelligence was a mental ability involving the thinking process rationally. Consequently, the intelligence could not be observed directly but it had to be concluded via real acting as the manifestation of thinking process rationally.

Another prior research concerning with the thinking maturity was done by D. Farrow, K. et al., (2011). Their findings indicated how an individual made decisions. Three key characteristics of decision-making had been discovered: (1) **temperance**, which was the ability to evaluate the consequences of different courses of action before making a decision to act in response to the assessment of a situation, to limit impulsion/motion and control aggressive responses and risk-taking; (2) **responsibility**, the ability to act independently, be self-reliant and had a clear sense of personal identity and (4) **perspective**, the ability to understand and consider the views of others before taking a decision to act and to understand the wider context in which the decision to act was made. Of these it was the element of temperance that was most likely to be underdeveloped in this age group.

A person’s level of **personal development** in terms of the consistent application of higher order skills of emotional management, planning and control of impulses was identified. The impact of their **social environment** and **relationships** was recognized including family and peer relationships, their experience of education and employment, financial and social resources and the extent to which the person had been able to move towards a stable adult lifestyle. These elements of course interacted with each other and shaped offending choices, the motives, circumstances, types and patterns of offending.

Both studies above can be used as the main references because the core purposes presented in those studies are relevant to the objectives of this research. This research is concerned with the thinking maturity related to intelligence. “*Maturity*” as an aim in education has always been an urgent purpose of teachers. All conscience believes that the teacher’s job is to help children grow toward maturity since the maturity as a concept represents growth of the individual’s total life has had to wait for a historical process of development in many fields (Farrow, K. et al., (2011).

## **Reviews of Literature**

There are several factors affecting the individual’s intelligence, for instances, descendant, economic social background, life environment, physical and emotional conditions, attitude, talent, form, maturity, and freedom factors. These factors are presented respectively as follows:

Referring to the correlation research towards the intelligence test value between children and their parents, or between grandson/daughter and their grandmother/father, indicating that there is an impact of descendant factor on someone’s mental ability level to the certain level. In terms of the social economic background, the family’s incomes, parents’ job and other social economic factors correlate positively and high enough with individual’s intelligence beginning from three years old to adolescent.

Furthermore, the insufficient life environment will produce the deficient intellectual. Thus, the worst environment towards the intelligence development is orphanage, particularly if the children live there during their beginning life. Another problem causing the children’s mental ability low is the physical condition when they have bad health, and their physical development is slow. Further, the emotion condition also affects the individual’s mental development. With respect to the above statements, Djaali (2004:74) states,

“There are five factors influencing children’s intelligence, such as (1) congenital factor that derives from being born, (2) desire and unique congenital factors where the desire leads the action to a purpose as the mental stimulation for the reaction, (3) forming factor is concerned with any outside condition of someone having intelligence, (4) maturity factor where every organ in human’s body undergoes growth and development, and (5) freedom factor means to be able to select a certain way in solving problems being faced.”

### Intelligence Levels

The theories of humans’ intelligence generally believe that someone’s intelligence level tends not to change. Outomatically, we are sure that the intelligence form is static. Generally, the intelligence focuses on hard set not to the soft set of the intelligence forms. Talking about intelligence, the focus of this research does not deal with the brain but does with the intelligence since the intelligence itself determines how big the brain people have that can be used. Kadarusman, D. (2012:63) states, “The brain function has been set, so, the brain pattern does not change since being born untill being death.” The ability and brain manage a task form fast or a certain skill is also called the brain working effectivity. Someone’s intelligence level can be measured via solving the problems at great speed.

### Thinking Maturity

In the human development, people experience two types of development, namely corporeal development, and spiritual development. The corporeal development measured is based on the cronological age, and the peak of corporeal development obtained is called growth. On the other hands, the spiritual development measured is based on the ability level. The obtaining of certain activity level of the spiritual development is called maturity.

In line with the above statement, a conclusion can be drawn that the maturity is the growth process or the development existing in the individual that has gained the ability to carry out his/her function. Based on the maturity thinking definition, the thinking maturity is an ability and desire to be objective to himself / herself and environment in overcoming and deciding the problems. Pramudya, S. A. (2006:176) states, “There are some important points that should be known when the thinking maturity has grown in the people’ brain, such as people have abilities in thinking administratively, making limitation and counting, having large thoughts, determining cause and effect, thinking rationally, logically, theoretically, systematically, structurally, creatively, productively, effectively, efficiently, strategically, objectively, having abilities to produce approaches, and having the thinking ability to correct and solve the problems.”

## RESEARCH METHODS

This research was a correlation study. The correlation study was a scientific study in which a researcher investigated associations between variables. It was simply defined as a relationship between two variables. The whole purpose of using correlations in research was to figure out which variables were connected. This simple definition was the basis of several statistical tests that resulted in a **correlation coefficient**, defined as a numerical representation of the strength and direction of a relationship.

Correlation research was looking for variables that seemed to interact with each other, so that when we could see one changing, we had an idea of how the other would change. This often entailed the researcher using variables that s/he could not control. A correlation coefficient might be calculated. This correlation coefficient was a quantitative measure of the association between two variables.

The goal of correlation research was to find out whether one or more variables could predict other variables. Correlation research allowed us to find out what variables might be related. However, the fact that two things were related or correlated did not mean there was a causal relationship. It was important to make a distinction between correlation and causation. Two things could be correlated *without* there being a causal relationship.

### Research Location, Population and Sample

This research was carried out at SMK Trisakti Makassar at Hertasing Baru street, no. 171 Makassar. The population of this research was 703 subjects but only 70 were selected as the samples of the research. The following were the samples of the research presented in the table below.

**Table1.** *The Population of SMK Trissakti Makassar*

Consecutive No.	Class	Sex		Total
		Male	Female	
1	X	76	149	225
2	XI	41	96	137
3	XII	69	51	120
4	XIII	34	77	111
5	XIV	63	51	114
Total		: 283	424	707

**Data Sources:** *SMK Trisakti Makassar*

In line with the above great population, class X and class XI having 362 population, but only 70 subjects were taken as the samples of this research

**Table2.** *Research Samples of SMK Trisakti Makassar*

Consecutive No.	Class	Population	15 %	Samples
1	X	224	14.94	35
2	XI	256	17.05	35
Total		: 480	31.99	70

**Data Sources:** *Population data processing results*

### **Data Collection Techniques**

Every research was expected to collect relevant data that could be exerted to test the proposed hypothesis based on the research goal. To obtain the relevant data, several data collection techniques were applied as follows.

#### **Observation**

Observation was a data collection strategy involving the systematic collection and examination of verbal and nonverbal behaviors as they occurred in a variety of contexts. This method of data collection was particularly important when there were difficulties in obtaining relevant information through self-report because subjects were unable to communicate (e.g., with infants or confused adults) or provided sufficiently detailed information (e.g., about complex interaction patterns). Observations also were used to validate or extend data obtained using other data collection methods. Both unstructured and structured observations were used by researchers. Unstructured observations were most useful in exploratory, descriptive research. Structured observations were used when behaviors of interest were known, and this type of observation often involved the use of an observation schedule, e.g., a checklist (Michael S. Lewis-Beck, et al., 2004).

#### **Questionnaires**

A questionnaire was a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. Although they were often designed for statistical analysis of the responses, this was not always the case. It was a form containing a set of questions, especially one addressed to a statistically significant number of subjects as a way of gathering information for either qualitative or quantitative research (Munn, P., and Drever, E., 2004).

Usually, a questionnaire consisted of a number of questions that the respondent had to answer in a set format. A distinction was made between open-ended and closed-ended questions. An open-ended question asked the respondent to formulate his own answer, whereas a closed-ended question had the respondent pick an answer from a given number of options. The response options for a closed-ended question should be exhaustive and mutually exclusive (Oppenheim, A. N., 2000)

Oppenheim, A. N., continued stating that there were four types of response scales for closed-ended questions distinguished: (1) Dichotomous, where the respondent had two options, (2) Nominal-polytomous, where the respondent had more than two unordered options, (3) Ordinal-polytomous, where the respondent had more than two ordered options, and (4) Continuous, where the respondent was presented with a continuous scale. A respondent's answer to an open-ended question was coded into a response scale afterwards. An example of an open-ended question was a question where the testee had to complete a sentence (sentence completion item).

#### **Questionnaire Construction**

Munn, P., and Drever, E. (2004) stated that questionnaire construction regarded questionnaires. It was a series of questions asked to individuals to obtain statistically useful information about a given topic. When the questions were properly constructed and responsibly administered, questionnaires became a vital instrument by which statements could be made about specific groups, or entire populations. Questionnaires were frequently used in a quantitative research. They were a valuable method of collecting a wide range of information from a large number of individuals, often referred to as respondents.

Munn, P., and Drever, E. proceeded saying that adequate questionnaire construction was critical to the success of a survey. Inappropriate questions, incorrect ordering of questions, incorrect scaling, or bad

questionnaire format could make the survey valueless, as it might not accurately reflect the views and opinions of the participants. A useful method for checking a questionnaire and making sure it was accurately capturing the intended information was to pretest among a smaller subset of target respondents.

In line with the above quotations, the following discussion referred to the closed questionnaire in which the respondents selected the prepared answers. The scale containing instrumental items had gradation from the highest (very positive) to the lowest (very negative). The bands of scores weight among 1 to 5 of each item with details as follows:

1	Always	Score: 5
2.	Often	Score: 4
3.	Sometimes	Score: 3
4.	Rare	Score: 2
5.	Never	Score: 1

### *Types and Sources of Data*

The types of data consisted of primary data obtained from the research object namely the data results via questionnaires. The secondary data supported the primary data that were derived from the reading materials and documentation. All the data above were collected from the school master, class teachers and subject teachers, guidance and counseling teachers, and students as the respondents.

### *Data Analysis Techniques*

Techniques of data analyses applied were the simple regression that was formulated as follows:

$$\hat{y} = a + bx$$

Where:

$\hat{y}$  = subjects of 11 dependent variables that were projected

x = independent variables which had certain scores for being predicted

a = the value of constant scores of Y if x = 0

b = the directed scores as the prediction determination that indicated the improvement scores (+) or the reduction scores (-) of 11 dependent variables Y

## **FINDINGS AND DISCUSSIONS**

### **Findings**

The research data gained are based on the questionnaire release of 70 samples from 482 populations of SMAN 1 Soppeng. With respect to questionnaires, the data can be seen in the table 3 below.

**Table3.** *The Value Amounts of Variable X*

Respondents	DATA OF VARIABLES X											Total
	1	2	3	4	5	6	7	8	9	10	11	
1.	3	3	3	3	3	5	4	3	3	4	3	37
2.	4	3	4	4	3	5	5	4	4	3	3	42
3.	4	4	5	5	4	4	5	4	3	3	4	45
4.	4	4	3	5	3	3	5	4	4	4	3	42
5.	4	4	3	5	4	4	5	4	4	4	4	45
6.	3	2	3	4	4	5	5	2	4	2	2	36
7.	5	3	3	3	3	5	5	3	5	5	5	45
8.	3	4	3	5	3	4	3	3	4	3	5	40
9.	4	3	3	3	3	5	5	3	5	5	5	44
10.	5	5	1	5	5	5	5	5	5	2	5	48
11.	3	3	3	3	3	3	3	3	3	3	3	33
12.	3	3	4	5	3	5	5	3	4	3	4	42
13.	2	3	3	2	3	5	4	4	4	3	3	36
14.	3	3	3	3	3	5	4	2	4	3	3	37
15.	3	3	3	3	3	5	4	2	4	3	3	37
16.	3	3	3	4	4	2	1	2	2	3	4	31
17.	3	3	2	2	3	5	3	2	5	5	3	36
18.	3	3	3	3	3	3	3	3	3	5	3	35

19.	2	3	5	3	3	2	2	1	3	3	3	30
20.	3	3	3	3	3	4	5	3	4	3	3	37
21.	4	3	3	3	3	3	3	3	4	3	3	35
22.	3	3	2	4	4	5	5	2	4	4	4	40
23.	3	3	3	3	3	2	4	3	3	3	3	33
24.	3	3	2	3	2	3	3	2	5	4	5	35
25.	4	4	3	5	5	4	5	3	5	5	4	47
26.	3	3	4	5	3	4	3	2	4	4	3	38
27.	3	4	2	4	4	4	5	3	3	4	3	39
28.	3	3	4	5	3	4	3	2	4	4	3	38
29.	3	3	4	4	5	4	4	3	5	5	5	45
30.	3	4	3	4	3	4	3	4	5	4	3	40
31.	3	4	3	3	4	5	5	3	4	5	5	44
32.	3	3	4	4	4	4	5	3	3	4	3	40
33.	3	3	4	4	3	4	3	2	4	4	3	37
34.	3	4	5	4	5	5	5	3	3	4	2	43
35.	3	4	5	4	5	5	5	3	3	4	2	43
36.	2	3	5	5	3	2	3	3	3	4	3	36
37.	3	4	3	3	4	5	5	3	4	5	4	43
38.	3	3	4	4	5	4	4	3	5	5	5	45
39.	3	2	5	3	4	3	3	2	3	3	3	34
40.	4	3	3	3	3	3	5	3	3	3	3	36
41.	3	4	5	5	4	5	5	3	3	4	2	43
42.	3	4	5	4	5	5	5	3	3	4	2	43
43.	3	3	3	3	3	3	4	3	3	5	5	38
44.	3	3	4	1	3	2	5	3	4	3	3	34
45.	4	3	2	5	4	5	4	4	5	4	4	44
46.	4	4	3	5	5	4	5	3	5	5	4	47
47.	4	3	3	5	4	3	5	3	4	4	3	41
48.	3	3	2	4	4	5	5	3	4	4	4	41
49.	4	3	3	3	3	3	3	4	4	3	3	36
50.	3	3	4	4	4	5	5	3	3	3	4	41
51.	4	3	3	2	4	5	3	4	4	3	2	37
52.	4	3	4	4	4	5	5	4	4	3	3	43
53.	4	3	4	4	3	5	5	4	4	3	3	42
54.	4	4	3	5	5	4	5	3	5	5	4	47
55.	3	3	4	4	4	5	4	3	4	4	3	41
56.	3	3	4	4	4	5	5	3	4	4	4	43
57.	3	3	4	4	4	3	4	3	5	4	4	41
58.	3	3	3	2	4	5	5	3	4	5	4	41
59.	4	3	3	4	4	3	3	2	3	3	3	35
60.	3	3	3	4	4	5	4	2	4	3	3	38
61.	4	4	4	4	4	5	3	2	5	4	3	42
62.	1	4	5	4	5	3	5	4	4	5	5	45
63.	3	3	3	3	3	4	4	1	4	3	3	34
64.	4	3	4	4	3	5	5	4	4	3	3	42
65.	3	3	3	3	3	3	3	3	2	3	3	32
66.	4	3	3	3	3	4	4	3	3	3	3	36
67.	2	2	3	3	2	2	2	2	2	2	2	24
68.	3	4	3	5	3	5	5	2	4	2	2	38
69.	2	3	3	3	3	2	2	2	4	4	3	31
70.	3	3	4	3	4	5	4	2	4	3	3	38

Data Sources: Questionnaire Results

Table 4. The Value Amounts of Variable Y

DATA OF VARIABLES Y												
Respondents	1	2	3	4	5	6	7	8	9	10	11	Total
1.	5	5	3	4	3	1	4	3	3	4	5	40
2.	4	5	3	4	3	2	4	5	4	3	3	40
3.	4	4	4	4	4	4	4	4	4	4	4	44
4.	4	4	4	3	4	3	3	3	4	4	4	40
5.	4	5	4	4	4	3	4	4	4	4	4	44
6.	2	4	3	1	2	4	5	5	5	2	5	38
7.	5	5	5	5	1	3	4	5	5	3	4	45

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8.	4	5	5	1	2	3	1	5	5	4	4	39
9.	5	5	5	5	1	3	4	5	5	3	4	45
10.	5	5	5	5	5	5	5	5	5	5	5	55
11.	3	3	3	3	3	3	3	3	3	3	3	33
12.	3	5	5	5	3	1	1	5	5	3	5	41
13.	3	5	5	4	1	2	2	5	4	3	4	38
14.	4	5	5	3	1	3	5	5	3	3	5	42
15.	4	5	5	3	1	3	5	5	3	3	5	42
16.	3	4	4	2	1	1	1	3	3	3	3	28
17.	5	5	4	4	2	1	5	5	4	5	5	45
18.	2	5	5	3	3	3	3	3	3	3	3	36
19.	4	4	4	3	3	3	3	4	3	3	3	37
20.	3	5	4	4	3	1	5	4	3	1	3	36
21.	2	5	3	3	2	2	5	5	4	2	4	37
22.	4	4	2	3	2	2	3	4	2	3	3	32
23.	3	5	4	4	1	3	3	3	3	4	3	36
24.	4	5	4	1	1	2	3	5	2	3	3	33
25.	4	5	3	4	1	2	2	4	4	2	3	34
26.	4	5	5	3	1	1	4	5	2	3	5	38
27.	3	4	4	3	1	3	2	2	4	3	3	32
28.	4	5	5	5	1	1	4	5	2	3	4	39
29.	4	4	5	2	2	1	2	2	3	3	3	31
30.	3	5	5	4	4	3	5	4	4	3	5	45
31.	4	5	3	4	4	3	5	4	3	3	5	43
32.	5	5	5	1	1	1	5	5	3	3	3	37
33.	5	5	5	1	2	1	5	5	3	3	3	38
34.	3	4	5	5	3	1	4	5	1	4	4	39
35.	3	4	5	5	3	1	4	5	1	4	4	39
36.	3	4	3	4	1	1	4	4	3	3	5	35
37.	3	5	3	4	4	3	5	4	3	3	5	42
38.	5	4	4	4	2	1	3	2	2	3	3	33
39.	4	1	3	3	3	2	3	1	3	3	2	28
40.	2	5	5	3	3	1	3	3	3	3	3	34
41.	3	4	5	5	3	1	4	5	1	4	4	39
42.	3	4	5	5	3	1	4	5	1	4	4	39
43.	2	4	2	2	5	1	2	3	3	2	3	29
44.	5	4	5	4	1	4	3	3	2	5	4	41
45.	3	5	4	5	2	1	5	4	3	3	5	40
46.	4	5	3	4	1	2	2	4	4	2	3	34
47.	3	5	3	3	1	2	4	4	4	2	3	34
48.	3	4	4	5	1	2	4	4	4	3	5	39
49.	2	5	3	3	2	2	5	5	4	2	4	37
50.	4	3	4	3	1	4	3	4	3	3	5	37
51.	2	5	3	3	1	1	4	5	4	3	5	36
52.	4	5	3	4	3	2	4	5	3	3	4	40
53.	4	5	3	4	3	2	4	5	4	3	4	41
54.	4	5	3	4	1	2	2	4	4	2	3	34
55.	3	5	5	3	3	3	4	4	3	4	5	42
56.	4	4	5	3	3	3	4	4	3	4	5	42
57.	3	4	5	4	3	1	5	5	4	4	3	41
58.	4	4	4	4	3	2	5	4	5	3	4	42
59.	2	4	4	3	2	1	4	3	3	3	2	31
60.	2	5	5	3	2	3	4	5	4	5	5	43
61.	3	4	3	3	3	4	3	4	3	4	4	38
62.	5	5	5	5	1	5	3	5	5	5	5	49
63.	4	4	4	3	4	2	5	5	5	4	4	44
64.	4	5	3	4	3	2	4	5	4	3	4	41
65.	4	5	3	3	2	2	5	5	4	2	4	39
66.	2	5	5	3	2	2	5	5	4	2	4	39
67.	2	3	3	3	3	3	2	3	3	2	3	30

68.	2	5	5	4	3	3	1	5	2	3	5	38
69.	2	4	3	4	1	3	4	4	3	2	4	34
70.	2	4	4	3	2	3	4	3	4	5	5	39

**Data Sources:** *Questionnaire Results*

**Table5.** *Total Values of both Variables X and Y*

Respondents	x	Y	x <sup>2</sup>	y <sup>2</sup>	Xy
1.	37	40	1369	1600	1480
2.	42	40	1764	1600	1680
3.	45	44	2025	1936	1980
4.	42	40	1764	1600	1680
5.	45	44	2025	1936	1980
6.	36	38	1296	1444	1368
7.	45	45	2025	2025	2025
8.	40	39	1600	1521	1560
9.	44	45	1936	2025	1980
10.	48	55	2304	3025	2640
11.	33	33	1089	1089	1089
12.	42	41	1764	1681	1722
13.	36	38	1296	1444	1368
14.	37	42	1369	1764	1554
15.	37	42	1369	1764	1554
16.	31	28	961	784	868
17.	36	45	1296	2025	1620
18.	35	36	1225	1296	1260
19.	30	37	900	1369	1110
20.	37	36	1369	1296	1332
21.	35	37	1225	1369	1295
22.	40	32	1600	1024	1280
23.	33	36	1089	1296	1188
24.	35	33	1225	1089	1155
25.	47	34	2209	1156	1598
26.	38	38	1444	1444	1444
27.	39	32	1521	1024	1120
28.	38	39	1444	1521	1482
29.	45	31	2025	961	1395
30.	40	45	1600	2025	1800
31.	44	43	1936	1849	1892
32.	40	37	1600	1369	1480
33.	37	38	1369	1444	1406
34.	43	39	1849	1521	1677
35.	43	39	1849	1521	1677
36.	36	35	1296	1225	1260
37.	43	42	1849	1764	1806
38.	45	33	2025	1089	1485
39.	34	28	1156	784	952
40.	36	34	1296	1156	1224
41.	43	39	1849	1521	1677
42.	43	39	1849	1521	1677
43.	38	29	1444	841	1102
44.	34	41	1156	1681	1394
45.	44	40	1936	1600	1760
46.	47	34	2209	1156	1598
47.	41	34	1681	1156	1394
48.	41	39	1681	1521	1599
49.	36	37	1296	1369	1332
50.	41	37	1681	1369	1517
51.	37	36	1369	1296	1332
52.	43	40	1849	1600	1720

53.	42	41	1764	1681	1722
54.	47	34	2209	1156	1598
55.	41	42	1681	1764	1722
56.	43	42	1849	1764	1806
57.	41	21	1682	1764	1681
58.	41	42	1681	1764	1722
59.	35	31	1225	961	1085
60.	38	43	1444	1849	1634
61.	42	38	1764	1444	1596
62.	45	49	2025	2401	2205
63.	34	44	1156	1936	1496
64.	42	41	1764	1681	1722
65.	32	39	1024	1521	1248
66.	36	39	1296	1521	1404
67.	24	30	576	900	720
68.	38	38	1444	1444	1444
69.	31	34	961	1156	1054
70.	38	39	1444	1521	1482
Total	2747	2685	109341	104631	105909

Source: Data of both variables X and Y

By the table above, the computing results can be counted by using the simple regression formula. The corrections of regression significance are done via testing the null hypothesis saying: “There is no nexus of variable X towards variable Y”

The testing of regression coefficient can be conducted through the hypothesis testing steps as follows:

1. To count the b formula via the formula: 
$$b = \frac{N \cdot (\sum XY) - \sum X \sum Y}{N \cdot \sum X^2 - (\sum X)^2}$$

$$a = \frac{\sum Y - b \sum X}{N} = \bar{Y} - b \bar{X}$$

2. To count the a formula via the formula:

3. To count a simply regression equation:  $\hat{y} = a + bx$

4. To determine the null hypothesis (Ho) and the alternative hypothesis (H<sub>1</sub>)

5. **H<sub>0</sub> : ρ = 0** : There is no nexus of variable X towards variable Y

6. **H<sub>1</sub> : ρ ≠ 0** : There is a nexus of variable X towards variable Y

To decide a suitable statistical test, the statistical test applied is *f test*. To determine the test value *f*, some steps can be done as follows:

a. To count the regression quadratic amount (QA<sub>reg</sub> (a) with the formula:  $QA_{reg} = \frac{(\sum Y)^2}{n}$

b. To count the regression quadratic amount QA<sub>reg</sub> (b) with the formula:  $QA_{reg} (b/a) = b \cdot (\sum XY - \frac{\sum X \cdot \sum Y}{n})$

c. To count the residually quadratic amount QA<sub>reg</sub> with the formula:  $QA_{reg} = \sum Y^2 - QA_{reg} (b/a) - QA_{reg} (a)$

d. To count the average of regression quadratic amount QA<sub>reg</sub> with the formula:  $QA_{reg} (a) = QA_{reg} (b)$

e. To count the average of regression quadratic b/a (ARQ<sub>reg</sub> (a) with the formula:  $ARQ_{reg} (b/a) = QA_{reg} (b/a)$

f. To calculate the average of residual quadratic amount (AQA<sub>res</sub>) with the formula:  $AQA_{res} = \frac{QA_{res}}{n-2}$

g. To count *f*, with the formula:  $f = \frac{ARQ_{regression} (b/a)}{ARQ_{residual}}$

7. To decide the critical value ( $\alpha$ ) or the  $f$  table value on the degree of freedom ( $df_{reg\ b/a} = (n-2)$ ).
8. To compare the  $f$  test value with the  $f$  table value. If the  $f_{count}$  value  $> f_{table}$  or similar ( $\geq$ ) of  $f_{table}$ , the null hypothesis is rejected.

Based on the amount of each variable, it can be recognized that:

- a) The amounts of  $n = 72 - 2 = 70$
- b) The amount of  $\sum x = 2813$
- c) The amount of  $\sum y = 2768$
- d) The amount of  $\sum x^2 = 111527$
- e) The amount of  $\sum y^2 = 108080$
- f) The amount of  $\sum xy = 108642$

1. To count the  $b$  formula with the formula:

$$b = \frac{N(\sum XY - \sum X \sum Y)}{N \cdot \sum X^2 - (\sum X)^2}$$

$$b = \frac{70(108642 - 2813 \cdot 2768)}{70 \cdot 111527 - (2813)^2}$$

$$b = \frac{70(108642 - 5581)}{62198558} = \frac{70(103061)}{62198558} = \frac{7214270}{62198558} = 0.1159 \text{ Or } 0.1160$$

2. To count the  $a$  formula with the formula:  $a = \frac{\sum Y - b \sum X}{N}$

$$a = \frac{2768 - 0.31 \cdot 2813}{70} = \frac{27676872}{70} = a = 39.53$$

3. To count the simple regression equation:  $\hat{y} = a + bx = 26.33 + 0.31X$

4. To determine the null hypothesis ( $H_0$ ) and alternative hypothesis ( $H_a$ )

$H_a$  = There is a significant effect between intelligence level and students’ thinking maturity of SMK Trisakti Makassar.

$H_0$  = There is no a significant effect between intelligence level and students’ thinking maturity of SMK Trisakti Makassar.

5. To decide a suitably statistical test, the  $f$  test can be used by:

- a. To count regression quadratic amount ( $QA_{reg(a)}$ ) with the formula:

$$QA_{reg(a)} = \frac{(\sum Y)^2}{n} = \frac{(2768)^2}{70} = \frac{7661824}{70} = QA_{reg(a)} = 109454.62$$

- b. To count the regression quadratic amount ( $QA_{reg(b/a)}$ ) with the formula:

$$QA_{reg(a/b)} = b \cdot \left( \sum XY - \frac{\sum X \sum Y}{n} \right)$$

$$QA_{reg(a/b)} = 0.31 \left( 108217 - \frac{1813 \cdot 2768}{70} \right)$$

$$QA_{reg(a/b)} = 0.31 \left( 108217 - \frac{202872}{70} \right)$$

$$QA_{reg(a/b)} = 0.31 (108217 - 0.2898)$$

$$QA_{reg(a/b)} = 33.546$$

- c. To count the residually quadratic amount ( $QA_{res}$ ) with the formula:

$$QA_{res} = \sum Y^2 - \sum QA_{reg(a/b)} - \sum QA_{reg(a)}$$

$$QA_{res} = 108080 - 33.546 - 108217 = QA_{reg(a)} = -170.54$$

- d. To count the average of regression quadratic amount ( $QA_{reg(b/a)}$ )

with the formula:  $QA_{reg(a)} = QA_{reg(b)} = 106414.22$

e. To count the average of quadratic amount  $AQA_{reg(a)}$  with  $QA_{reg(b)} = 33.546$

f. To count the average of residual quadratic amount with the formula ( $AQA_{res}$ ) with the formula:

$$AQA_{res} = \frac{QA_{res}}{n-2} = \frac{AQA}{72-2} = \frac{1511.47}{70} = 7.15$$

g. To count the  $F_{count}$  with the formula:

$$F_{count} = \frac{AQA_{reg(b/a)}}{AQA_{res}} = F_{count} = \frac{154.31}{21.59} = 7.15. \text{ As a result } F_{hitung} > F_{table}$$

namely:  $7.15 > 3.98$

## CONCLUSION AND SUGGESTION

### Conclusion

Based on the research result analyses, some main conclusions can be drawn that in the child’s life development, there is a different capability in doing activities and solving the problems. Generally, children having high intelligence can conduct and solve their tasks quickly and successfully. In contrast, children having low intelligence generally cannot handle their tasks quickly.

In fact, anything which is done by the children through the thinking process. When the children carry out activities, the thinking aspect can be done first if the activity type involves a problem that must find out its solution.

A teacher can help students (children) increase their intelligence through the learning guidance either via individual or in groups. This will affect students’ thinking maturity development because in the learning guidance, the students are motivated to use their thinking ability well and optimally.

By opening the students’ thinking maturity can shift the passive thinking to be active thinking that can be opened towards new experiences, flexible attitude, free in self-expression, appreciating fantasy, desire and activities, creative, and having high self-confidence towards own creation.

This case is proved from the results by using the simple regression formula and the null hypothesis that there is a significant nexus between the intelligent level and the thinking maturity of the students of SMK Trisakti Makassar.

Based on the regression equalization and the null hypothesis, it can be concluded that the intelligent level has a significant impact towards the students’ thinking maturity of SMK Trisakti Makassar, where  $F_{hitung} > F_{table}$  namely  $7.15 > 3.98$ . Whilst measuring the students’ intelligent level based on the intelligent test before and after the test given, there is no students’ intelligent level difference after and before the post-test.

### Suggestion

Two suggestions of this research are as follows: It is suggested that the functionary school can help students improve their intelligent improvement and the students’ thinking capability. The guidance and counseling teachers can use this research result to be their reference to determine the guidance service that will be given to the students of SMK Trisakti Makassar in helping them gain the thinking maturity.

## REFERENCES

- [1] Agus Sujanto. (2004) *General Psychology*. Bumi Aksara. Jakarta.
- [2] Djaali. (2007) *Educational Psychology*. Bumi Aksara. Jakarta.
- [3] Dwi Sunar Prasetyono. (2010) *IQ Test and EQ Plus*. Buku Biru, Jogjakarta
- [4] Gillham, B. (2008) *Developing a Questionnaire* (2nd ed.). London, UK:
- [5] Continuum International Publishing Group Ltd.
- [6] Guntur. (2012). *Intelligence Test*.
- [7] <http://my.opera.com/HinaKu/blog/tesintelegency>. Retrieved, March 2012

- [8] Mohammad Ali and Mohammad Asrori. (2005). *Educational Participants of Development Youth Psychology*. Bumi Aksara. Jakarta.
- [9] Michael S. Lewis-Beck, Alan Bryman & Tim Futing Liao (2004). *Social Science Research Methods*. The Sage Encyclopedia of Social Science Research Methods.
- [10] Munn, P., & Drever, E. (2004). *Using questionnaires in small-scale research: A beginner's guide*. Glasgow, Scotland: Scottish Council for Research in Education.
- [11] Oppenheim, A. N. (2000). *Questionnaire design, interviewing and attitude measurement* (New ed.). London, UK: Continuum International Publishing Group Ltd.
- [12] Prior, D. Farrow, K. Hughes, N. Kelly, G. Manders, G. White, S. and Wilkinson, B. (2011) *Maturity, young adults and criminal justice: A literature review*, Birmingham: University of Birmingham.
- [13] Riduwan. (2010). *Research Early Learning for Teachers, Administrators, and Beginning researchers*. Alfabeta: Bandung.
- [14] Romlah. (2004). *Theoretical Study Educational Psychology and Application*. Universitas Muhammadiyah Malang. Malang.
- [15] S. Ahmad Pramudya. 2006. *Proving the Thinking Maturity*. EDSA Mahkota. Jakarta.
- [16] Sarlito W. Sarwono. (2009). *General Introduction Psychology* Rajawali Pers. Jakarta.
- [17] Slameto. (2010). *Learning and Factors Affecting the Learning*. Rineka Cipta. Jakarta.
- [18] Sugiyono. (2007). *Educational Research Method (Quantitative Approach & Qualitative Research)*. Alfabeta. Bandung.
- [19] Syamsu Yusuf LN. (2010). *Development Psychology of Children and Youth*. Remaja Rosda Karya. Bandung.
- [20] Yudrik Jahja. (2011). *Development Psychology*. Kencana. Jakarta.