

Critical Thinking Disposition of Junior High School Student in West Sumbawa Regency

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Abstract: *Critical thinking disposition is a competency required by our students to be able to compete in the 21st century. The Critical thinking disposition is important to analyze early on. The competence must be paid attention to its development and always be developed. This research aims to examine the different levels of critical thinking skills based on the location of the school and gender. This research is descriptive explorative. 333 students were subjected to research in the measurement of critical thinking disposition. Data were collected using Questionnaire of Critical Thinking. To determine differences in students' critical thinking trends based on school location and gender were analyzed using Independent Sample T-Test.*

Date of Submission: 13-06-2018

Date of acceptance: 28-06-2018

I. Introduction

Critical thinking disposition intellectual capital needed by future generations. The critical thinking disposition as a tendency to conduct an attitude when dealing with problems under certain conditions¹. Facione explains critical thinking disposition is the spirit of criticality or the disposition to think critically that has the characteristics of inward curiosity, the sharpness of the mind, the perseverance of developing reason, the need for reliable information². So, critical thinking disposition will encourage someone to apply the competence of critical thinking in every aspect of life. Tafazzoli states that the tendency to think critically can be defined as a personal disposition or habit that influences a decision or the ability to control oneself in order to resolve problems related to professional situations³.

Critical thinking disposition can include cognitive skills and disposition to behave. Accordingly, the critical thinking disposition is a plan to act on a person related to critical thinking skills. A person who has a critical inclination will show a high sense of desire, an intellectual enthusiasm, dedicated to the reasons for performing an action, highly anticipating important information, and having a disposition to use critical thinking skills compared to individuals with critical thinking tendencies low. In general it can be stated that critical thinking disposition refers to the disposition to certain patterns of consistent intellectual behavior or behavior that can be observed in certain situations³.

With this research, it is expected to provide solution to the unavailability of data on the condition of student's thinking in West Sumbawa Regency wes for formal school and local government to be able to consider the right policy related to the improvement of students' competence especially on the aspect of critical thinking disposition. Therefore, this study aims to find out the profile of students' critical thinking disposition, and to see the difference of students' critical thinking skill level in West Sumbawa regency of Nusa Tenggara Bara province based on their school location and gender.

II. Material And Methods

This research is a descriptive explorative research conducted with survey technique and conducted in West Sumbawa regency in November to December 2017. The subjects of this study are students of grade VIII and IX SMP which amounted to 347 people (173 male and 174 female) who selected by Cluster Random Sampling technique and spread in 8 sample schools. The eight schools are grouped into 2 zones is inner and outer city zones).

Data on critical thinking disposition were collected using the California Critical Thinking Disposition Inventory (CCTDI) test developed by Facione (2011)⁴. This test has been translated into Indonesian by Purwoko et al. (2016) 75 points Objective test with alternative answers strongly agree, agree, disagree, and strongly disagree. Test of California Critical Thinking Disposition Inventory (CCTDI) prior to use in research. Before the instruments are used, the test validity of the construct and content validity by 3 instrument experts has been done. The validity and reliability were analyzed from the results of the tests on 22 students of grade VIII and IX

in 2 schools. The test results of validity and reliability of the items indicating 30 points of objective test from the California Critical Thinking Disposition Inventory (CCTDI) test were valid and reliably with ranges, ranging from 0.854 to 0.427 and Cronbach's Alpha value of 0.929. Then the data of the research were analyzed with Independent Sample T-Test to see the difference of students' critical thinking disposition based on school location and gender.

III. Results And Discussions

The results of the critical thinking disposition test are scouting and categorizing based on the range of scores as shown in Table 1. Based on these criteria, the frequency distribution of students in each category is presented in Table 1:

Table 1. Distribution of Student Frequencies by Level of Critical Thinking Trends

Score Range	Category	N	Frequency (%)
> 90	Strong	225	63.92
70 – 90	Positive	120	34.09
49 – 69	Ambivalen	7	1.99
<49	Negative	0	0.00

The data in Table 1 shows that 63.92% of students in West Sumbawa Regency have a **Strong** level of critical thinking disposition. Only 34.09% of students had a **positive** thinking level, and 1.99% of students with a critical thinking disposition in the **Ambivalen** category. But none of the students occupy the category of **Negative** critical thinking disposition. The ability to be a critical thinker is a learned skill, one that is greatly influenced by learning environment, disposition and pedagogy⁵. Therefore, nursing education strives to facilitate the development of students' critical thinking through the appropriate instructional approaches⁶.

When viewed from the location of the school, the level of class and gender, the distribution of the frequency of students in the category of critical thinking disposition are presented in Table 2:

Table 2. Student Frequency Distribution Based on Critical Thinking Disposition Rate From School Location and Gender Grades.

Category	Frequency Distribution (%)			
	In The City	Outside The City	Man	Women
Strong	31.53	32.39	28.69	35.23
Positive	17.90	16.19	19.89	14.20
Ambivalen	0.57	1.42	1.42	0.57
Negative	0.00	0.00	0.00	0.00
Amount	50	50	50	50
Average Score	91.82	91.72	90.42	93.13

The data in Table 2 shows that the average score of students whose school location is within the district city is better than the students whose school location is outside the city of 91.82 > 91.72 although not significantly different. The majority of students in the city or outside the city distribution grouped at the basic science level of the strong category, namely 31.53% and 32.39%. The lowest frequency distribution is occupied by the students in the Negative Critical Trend Negotiation category ie 0% for both outside and inside the city. In addition, Table 2 also shows that female students have a critical thinking disposition better than male students which can be seen from the average score obtained that is 93.13% > 90.42%. Female students have a critical thinking disposition with the highest frequency distribution shown in the strong category which is 35.23% greater than the male students which only 28.69% in that category. While the lowest distribution seen in the negative category of 0% in both male and female students.

Hypothesis testing performed by Independent-Sample T-Test at 5% significance level and the results are presented in Table 3 below:

Table 3. Results of the Independent-Sample T-Test of Critical Thinking Disposition

Classification	Kelompok	Mean ± SD	P	t	Conclusion
School Location	In The City	92,50 ± 6,29	0,720	-0,358	H ₀ be accepted
	Outside The City	92,74 ± 5,96			
Gender	Man	91,50 ± 6,05	0,001	-3,314	H ₀ rejected
	Women	93,69 ± 6,01			

Data in Table 3 shows the results of the first hypothesis testing that is based on the location of the school H₀ accepted which means there is no significant difference of critical thinking disposition of students whose school location is in the city with students whose school location is outside the city. In addition, the results of the third hypothesis testing that is based on gender test results obtained hypothesis H₀ rejected which

means there are significant differences in the critical thinking disposition of male students with female students. Some new studies conducted in Western Europe and the United States of America revealed that the level of critical thinking among undergraduate students based on demographic characteristics such as gender, academic year and academic major showed no clear differences among them^{8,9}.

Teachers as a component of the education system are urgently needed in facilitating the development of students' critical thinking disposition, so there needs to be serious and sustained efforts to develop teachers' thinking skills⁹, especially science teachers in West Sumbawa Regency. In applying Critical Thinking in school settings, it is necessary to develop thinking skills because people who think Critical would be able to understand the logical connections between ideas, construct and evaluate arguments, detect common mistakes in reasoning and solving problems systematically¹¹.

IV. Conclusion

The profile of students' critical thinking disposition in West Sumbawa Regency are Strong. That is 63.92% of students in West Sumbawa Regency have a **Strong** level of critical thinking disposition. Only 34.09% of students had a **positive** thinking level, and 1.99% of students with a critical thinking disposition in the **Ambivalent** category. But none of the students occupy the category of **Negative** critical thinking disposition.

The difference of students' critical thinking skill level in West Sumbawa regency of Nusa Tenggara Barat province based on their school location and gender are: there is no significant difference of critical thinking disposition of students whose school location is in the city with students whose school location is outside the city, and there are significant differences in the critical thinking disposition of male students with female students.

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Rizka Donny Agung Saputra " Critical Thinking Disposition of Junior High School Student in West Sumbawa Regency' Performance" *IOSR Journal of Research & Method in Education (IOSR-JRME)* , vol. 8, no. 3, 2018, pp. 01-03.