

## **Critical Thinking Disposition of Senior High School Student In Central Lombok Regency**

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**Abstract :** *The critical thinking disposition is an important competency to be mapped early on. The student's competence should be analyzed and always to be developed as it is needed by our students to be able to compete in the 21st century. This study aims to see the profile of the critical thinking disposition level of senior high school students in Central Lombok regency, West Nusa Tenggara. This research is descriptive with survey method to 384 students which become research subject for measurement of critical thinking disposition level. Data were collected using critical thinking disposition tests. To know the profile of students' critical thinking disposition, the research data was analyzed descriptively. The results of this study indicate that the level of critical thinking disposition of high school students in the regency of Central Lombok, NTB is in the positive category.*

**Keywords:** *Critical thinking disposition, profile, zona of school, gender, grade*

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### **I. Introduction**

Critical thinking has been regarded as a high-level cognitive ability consisting of two critical aspects of thinking: critical thinking skills and critical thinking disposition<sup>2</sup>. According to the National Education Board The critical thinking disposition is one of the intellectual abilities that the younger generation should have in the 21st century<sup>4</sup>. This aspect represents an effective dimension of thinking and shapes the routine way of thinking in responding to life, context and conditions<sup>11</sup>. This is an important component of education that needs attention to prepare students to develop thinking skills to become responsible citizens in the development of science and technology today.

Critical thinking disposition is an important part of the intellectual capital needed by future generations. The critical thinking disposition 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 situations<sup>13</sup>. Critical thinking disposition is the spirit of criticality or the tendency to think critically that has the characteristics of inward curiosity, the sharpness of the mind, the perseverance of developing reason, the need for reliable information<sup>5</sup>. So critical thinking disposition will encourage someone to apply the competence of critical thinking in every aspect of life. The scope of critical thinking disposition according to<sup>6</sup> are seven indicators: truth-seeking, open-mindedness, analyticity, systematicity, self-confidence, inquisitiveness, and maturity. The seven indicators map out cognitive skills and tendency to behave. In this connection, the critical thinking disposition reflects a person's attitude toward a critical thinking skill. A person with a critical predisposition will show high curiosity, intellectual enthusiasm, dedicated to suggesting an action, desperate for important information, and having a tendency to use critical thinking skills compared to individuals with low critical thinking tendencies. In general it can be stated that critical thinking disposition refers to the tendency to certain patterns of consistent intellectual behavior or behavior that can be observed in certain situations<sup>8</sup>.

Data on the critical thinking disposition of senior high school students in Central Lombok Regency need to be collected as a consideration to take policy related to improving the quality of education by the school and local government. In this case, research has been conducted that aims to map students' critical thinking disposition in Central Lombok Regency of West Nusa Tenggara Province.

### **II. Material And Methods**

This research is a descriptive research conducted with survey technique and conducted in Central Lombok Regency. The population of this study is the students of grade XI and XII of senior high school which amounted to 6,037 and spread in 6 schools. The six schools are grouped into 3 zones ie inner of town, suburban

and out-of-town zones. The study sample was 384 people (192 men and 192 women) selected by Cluster Random Sampling technique.

Data on critical thinking disposition were collected using the California Critical Thinking Disposition Inventory (CCTDI) test developed by Facione (2011). This test has been translated into Indonesian by Purwoko et al. (2016) 75 points an objective test with alternative answers strongly agrees, agrees, somewhat agrees, somewhat disagrees, disagrees and strongly disagrees. The California Critical Thinking Disposition Inventory (CCTDI) test prior to use in the research first has been tested the validity of the construct and the validity of the contents by 3 experts of the instrument. The validity and empirical reliability of the test items were analyzed from the results of the trials in 40 students of grade XI and XII in 2 schools. The result of validity test and the reliability of the item indicate that 62 test of the California Critical Thinking Disposition Inventory (CCTDI) is valid and reliable with the value of  $r_{count} > r_{table}$  ( $0.972 > 0.312$ ).

The research data were analyzed descriptively to describe critical thinking disposition profile of students in Central Lombok regency. The level of critical thinking disposition compared to the range of scores adapted from<sup>10</sup>.

### III. Result

In general, data on the critical thinking disposition of senior high school students in Central Lombok regency is quite good with an average total score of 270.48. From the data as much as 43,49% student have level of critical thinking disposition with positive category (mean score > 248). While the remaining 37.76% of the students are at the level of ability with the ambivalent category (average score between 186 – 248), and only 18.75% of students in the negative category (average score <186).

Base on school location, students whose school location in the inner of town, suburban and out of town alike have a positive critical thinking disposition level, but the average students score in the inner of town (298.91) is greater than out of the town (258.23) and suburban zone (254.30). The comparison percentage frequency of students' critical thinking disposition levels based on school location can be seen in Fig 1.

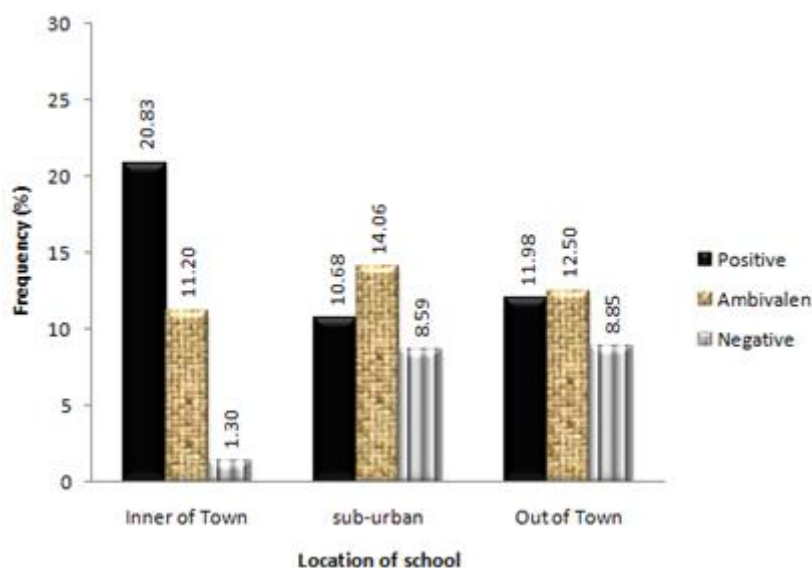


Figure 1. Student Frequency Distribution at Multiple Levels of Critical Thinking Disposition Viewed Base On School Location

When compared to the average value of the critical thinking disposition of the students in grade XI and XII, it is seen that both of them occupied a positive category, but the average score of the students of grade XI is higher than the students of grade XII that is  $277,83 > 263,14$ .

The average value of critical thinking disposition in terms of student's gender shows the position in the positive category but the average score of male students is greater female students ie  $281,34 > 259,63$ . In detail, the profile distribution of critical thinking disposition is presented in Table 1.

**Table 1.** Distribution of Student Frequencies At Some Levels of Critical Thinking Disposition Viewed from Grade and Gender.

Category Level	Distribution of Frequency (%)				
	Grade XI	Grade XII	Male	Female	
<i>Positive</i>	23.96	19.53	51.04	28.65	
<i>Ambivalen</i>	19.53	18.23	36.46	24.48	
<i>Negative</i>	6.51	12.24	12.50	13.54	
Total	50.00	50.00	50.00	50.00	
Average score	277.83	263.14	281.34	259.63	

Review of student's ability based on indicator of critical thinking disposition, indicating that highest average score obtained on Analyticity indicator that is 45,70, while the lowest in Maturity indicator that is equal to 32,26. The average score per indicator is shown in Fig 2.

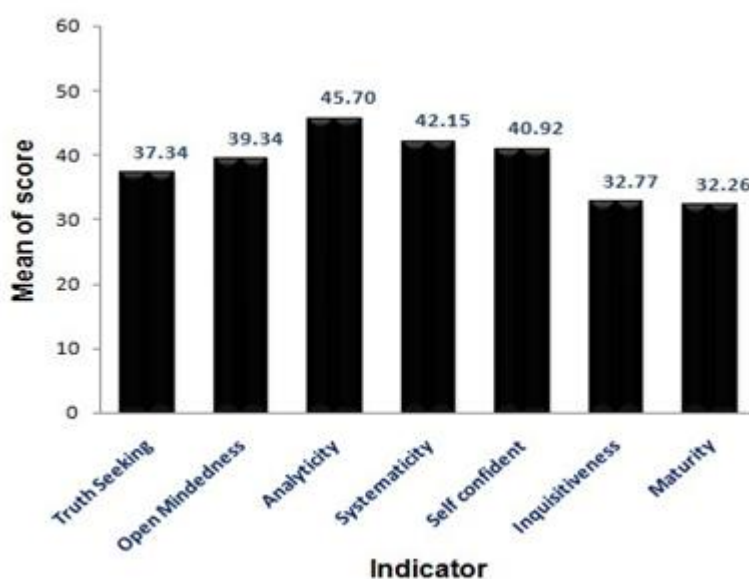


Figure 2. Distribution of Average Student Score On Each Critical Thinking Disposition Indicators.

#### IV. Discussion

In accordance with the research data presented above, it appears that the level of critical thinking disposition of senior high school students in Central Lombok Regency is in the positive category with a total score of 270.48. When viewed by the value per indicator in Figure 2, it shows that the average value of the highest indicator in Analyticity and the lowest on Maturity. The analytical capability found in the Analyticity is one of the strong indicators that support students' critical thinking disposition. The low value of the maturity indicates that mental development and cognition have not quite arrived yet.

However, the facts about the low inclination of students' critical thinking disposition on Maturity indicator should be an evaluation material to analyze the factors causing the problem. According to<sup>1</sup> the tendency of critical thinking develops on the basis of social environment and the relationship between the various components of the environment. In line with<sup>7</sup> which explains that the increase of critical thinking disposition fulfilled the factors that support the development of critical thinking disposition by the components of the prevailing education system which includes learning, teachers, curriculum model, atmosphere or learning environment.

If a review of the school location, students whose school location in the inner of town, suburban, and out of town share a positive predicament of positive thinking, but the average value of schools the inner of town is greater than that located outside theout of town and suburban ie in the order of 298.91> 258.23> 254.30. The results of this study indicate that the critical thinking disposition of senoiar high school students in Central Lombok Regency, tend to be unstable. The instability is likely to occur because the 2013 Curriculum is implemented earlier in the inner of town school as a pilot project school since 2013. So that various aspects ranging from facilities and infrastructure to the quality of early educators are ready to print generations that have the ability to think critically to achieve the demands of the curriculum.

Students who are in grade XI have higher critical thinking disposition than grade XII. This is assumed to be closely related to the implementation of the 2013 Curriculum in stages. Implementation of the 2013

Curriculum simultaneously for all schools is valid since two years ago ie academic year 2016/2017 starting from grade X. This means the sample of grade XII students at this research has not implemented the 2013 curriculum, with the exception of sample schools inner of town. This allegedly contributed to the higher ability of critical thinking disposition in grade XI. In practice, the 2013 Curriculum uses a scientific approach. This assumption is reinforced by<sup>3</sup> which states that the application of scientific approach affects students' critical thinking ability.

When compared to the average value of the critical thinking disposition of male and female students, it is illustrated that both are in the positive category, but the average score of male students is greater than female students ie 281.34 <259.63. This is in line with the results of research conducted by<sup>12</sup> who examines the differences in critical thinking at the gender level with the results of research states tend to think men are higher than women.

Based on these findings, it is hoped that the science educator community, especially in Central Lombok Regency, should give full attention to the mutual relationship between formal education at elementary level, high school level and higher education with critical thinking disposition to be mastered by students. In relation to the importance of teachers' role in facilitating the development of students' critical thinking disposition, there needs to be serious and sustained efforts to develop teachers' thinking competencies in Central Lombok Regency.

## V. Conclusion

The profile of students' critical thinking disposition is: students in Central Lombok Regency are positive, that is 43,49% students have critical thinking skill level with positive category, 37,76% students are in ambivalent category, and only 18,75% student in the negative category.

Teachers as a component of the education system are needed in facilitating the development of students' critical thinking disposition, so there needs to be serious and sustained effort to develop teacher thinking skill competency in Central Lombok Regency.

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## References

- [1]. A. Akgun, and U. Duruk, The Investigation of Preservice Science Teachers' Critical Thinking Dispositions in the Context of Personal and Social Factors, *Science Education International*, 27 (1), 2016, 3-15.
- [2]. M. Ana, Nieto, and C. Saiz, Skills And Dispositions of Critical Thinking: Are They Sufficient?. *Anales De Psicologia* 27(1), 2011, 202-209.
- [3]. Asmi, Fahinu, La Arapu, Pengaruh Pendekatan Scientific Terhadap Kemampuan Berpikir Kritis Siswa Dalam Pembelajaran Matematika, *Jurnal Penelitian Pendidikan Matematika*, 3(1), 2015, 45-58.
- [4]. Badan Standar Nasional Pendidikan. 2010. *Paradigma Pendidikan Nasional Abad XXI*. Tim Paradigma Pendidikan.
- [5]. A. Facione, *Critical Thinking: What It Is and Why It Counts*. Milbrae: Measured reasons and The California Academic Press. 2011.
- [6]. P.A. Facione, C.A. Sanchez, N.C. Faccione, and J. Gainenn, The Disposition Towards Critical Thinking, *Journal of General Education*, 44(1), 2014, 1-25.
- [7]. P.H.Harasym, T.C.Tsai, and P. Hemmati, Current Trends In Developing Medical Students' Critical Thinking abilities, *Kaohsiung J Med Sci*, 24(7), 2008, 341-355.
- [8]. N. Kwon, J. Anthony, Onwuegbuzie, and L. Alexander, Critical Thinking Disposition and Library Anxiety: Affective Domains on the Space of Information Seeking and Use in Academic Libraries, *College & Research Libraries*, 68(3) , 2007, 268-278.
- [9]. A.A. Purwoko, Y. Andayani, and Muntari, *Pengembangan Instrumen Penilaian untuk Mendiagnosis Kecenderungan Berpikir Kritis Mahasiswa Program Studi Pendidikan Kimia*, Report of Research, University of Mataram. Mataram, 2016
- [10]. S. Ramasamy, An Analysis of Informal Reasoning Fallacy and Critical Thinking Disposition Among Malaysian Undergraduates, *Asian e University Malaysia* 28<sup>th</sup> October, 2011.
- [11]. S.B. Robbins, K. Lauver, H. Le, D. Davis, R. Langley, and A. Carstrom, Do Psychosocial and Study Skill Factors Predict College Outcomes? A meta-analysis, *Psychological Bulletin*. 130(2), 2004, 261-288.
- [12]. B. Sadhegi, M.T. Hassani, and M. Rahmatkhah, The Relationship Between EFL Learners Metacognitive Strategies, and Their Critical Thinking, *Journal of Language Teaching and Research*, 5(5), 2014, 1167-1175.
- [13]. M. Tafazzoli, F.R. Fakari, The Relationship Between Critical Thinking Dispositions and Academic Achievement In Iranian Midwifery Students, *Nurs Pract Today*, 2(3), 2015, 88-93.

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