

Factors Affecting The Development of Critical Thinking of Indonesian Learners of English Language

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Abstract :- This paper describes the assessment of the student's critical thinking and identify the factors affecting its development. The assessment is done to Indonesian students learning English language at Maulana Malik Ibrahim State Islamic University. The identification of factors affecting their critical thinking development would contribute to the further aspects relating to the establishment of critical thinking based instruction in EFL teaching and learning process in Indonesia. The result of this particular study has shown the fact that most of the respondents have strong awareness of the importance of reading habit, the time management and broadening this learning sources from internet. However, this notion might not be well implemented or their views which are not practiced into reality due to various aspects. The result of this study also reveals that a notable factor affecting the ease to express critical thinking is the language proficiency. A critical thinker can express his or her thought well by means of good language use either in spoken or written form

Keywords: *critical thinking, culture background, family background, learning strategies*

I. INTRODUCTION

Critical thinking is included in writing process as learners in generating ideas use problem-solving process employing a range of cognitive and linguistic skills. These will lead learners to identify a purpose, to produce and shape ideas and to refine expression [1].

Assessing student's critical thinking becomes an important start to help students improve their literacy skills. In addition, identifying the factors affecting the development of critical thinking also take a crucial part for the sake of shaping an organized plan of critical thinking based instruction in EFL context. In a smaller context, preparing critical thinking based instruction belongs to one of the requirement for a better quality of education. This issue is also relevant with the need to strengthen the benchmark of tertiary education so that the university graduates are ready for competitive global world. Furthermore, preparing critical thinkers is also one of the demands of excellent university especially UIN Maulana Malik Ibrahim to fulfill the quality of World Class University.

The main goal of this study is to assess the student's critical thinking and identify the factors affecting its development. As the point of analysis, there are two objectives formulated to do this research. *First*, this study is to assess the critical thinking level of English Department students. It explores the ability of the students to support their opinion with reasons, recognize alternative view points and make conclusion of their ideas. *Second*, the analysis done in this study aims at identifying the factors affecting the development of critical thinking.

In this study, assessing critical thinking through writing in foreign language becomes the point. In this case, the teaching of critical thinking through writing in second or foreign language context needs to consider the limitation of timed-writing assessment. Giving students the opportunity to prepare the content in advance of the writing may allow them to demonstrate their best writing. The opportunity is limited in timed-writing assessment method [2]. As second language writers often have difficulties in managing both the content and linguistic demands of a writing assignment, the timed-writing should not be the only assessment type employed in critical writing course.

Student's performance in critical writing also can be assessed using norm-reference test which is closely related to critical thinking. It consists of two parts, the first of which requires students to respond a series of questions pertaining to an article they have been given to read. The second part requires students to write an evaluation of the article using standards to evaluate the quality of author's thinking. The eight standards are purpose, question, information, inference, concept, assumption, implication and point of view [3]. Then, each student's paper is scored by two trained raters using analytical rubric. Similar to any other assessment model the rubric is used as a helpful tool to measure the learners' achievement in both writing and critical thinking.

Basically, the assessment model makes strong connections with emerging conceptions of writing, literacy and critical thinking suggesting an assessment approach in which writing is viewed as calling upon a

broader construct than is usually tested in assessments that focus on relatively simple, on-demand writing tasks [4]. Any model employed should be oriented to assessing not only the development of the student's critical writing skills but also on the progress made in term of critical thinking cognitive domain.

Studies have traced several factors affecting critical thinking. The largest portion of the factors is given to the cultural factor. Accordingly current researchers tried to figure out the link between critical thinking and culture. Some have suggested that Asians, including Japanese, do not display critical thought in their writing in English. Other researchers claim that Asians display critical thinking abilities differently than Western learners. In addition, they argue that learners from a particular culture are too diverse to make claims about the whole group's thinking abilities [5].

Critical thinking is not an instant knowledge to transfer to students. Critical thinking is a commonsense behavior that is learned by the children as they grow up [6]. Because of this, he claims the existence of and ability to teach critical thinking to learners from cultures where it is not a social practice remain questionable. Atkinson offers two kinds of evidence to support his claim. First he claims that critical thinking is a difficult term to define though it exists at the level of a social practice. His second piece of evidence comes from anthropological studies in which that of mainstream U.S. children learning behavior is contrasted with non-mainstream children. It supports the assumption on the direct link between critical thinking and the family education and environmental circle as other factors affecting critical thinking.

A notable factor is language proficiency. A critical thinker can express his or her thought well by means of good language use either in spoken or written form. Empirical evidence shows that writing competence positively influences critical thinking performance for general education biology students [7]. While in social science, class it is indicated that students' improvement in writing performance goes together with the improvement in the skill of expressing deeper levels of thought [8]. However, in English writing course in Indonesian context expressing critical thinking is not easy. This occurs when students have difficulties to develop their critical thinking skills because of related problem such as language mastery [9]. These findings advocate that language skill considerably becomes significant factor affecting critical thinking.

The ease to expose argumentation depends on one's knowledge of good language and how to apply the knowledge into a discourse so that the critical thought is accessible to others. It is processing at the same time with the way a critical thinker formulate the way to develop their thought. Writing and learning and thinking are the same process so that learning skill is also another factor. Whereas whether the expression of thought can be understood by the audience or readers depends on the use of either the strength or limitation of the language [10]. This clarifies the strong link between learning to express one's thought and critical thinking.

Prior knowledge is also a significant factor affecting how well a critical thinker develops his or her reasoning. The exposure on rhetorical strategies in English persuasive essays affects the development of the student's critical thinking [11]. Therefore, the students need to be equipped with the knowledge on the three measures which reflect critical thinking skills: the superstructure of argument, the Toulmin model of informal reasoning and the persuasive appeals.

Critical thinking skills are influenced by another factor namely topic familiarity as supported by some studies. There are readily identifiable reasoning skills as part of critical thinking which refer to any subject matter though sometimes specialized knowledge is needed for reason assessment such as in physics and biology. The lack of critical thinking skills is also displayed in the academic writing of Japanese ESL college students in using American topics [5]. Furthermore, for a successful critical writing, learners at the primary level in Australian classroom are encouraged to take responsibility for their own writing based on what they know [12]. These are considered as the coverage of importance of topic familiarity to develop reasoning skill and critical thinking skills.

Topic familiarity is an important factor for critical thinking skills particularly of tertiary level students. In writing argumentative essays, Japanese students show that the content familiarity is proven to powerfully shape both the range and depth of argumentation as part of critical thinking [5]. This is not only the case in Japan but also in Indonesia. A study to some Indonesian EFL students of one state university in Banten shows that those who do not have prior knowledge or subject matter mastery gained through critical reading on the topic, will have problem to develop their critical thinking skills [9].

The knowledge based on the topic familiarity which learners possess regarding texts is usually traced back to schema theory. In schema theory, the comprehension is composed of two parts— a linguistic component responsible for decoding text and sending information to the brain, and a conceptual component that connects this information to pre-existing knowledge structures [13]. However, studies show different findings on the role of topic familiarity. Based on a test on the reading skills of 20 university-level English language learners, topic familiarity was not a strong contributor to reading comprehension [13]. Nonetheless, topic familiarity supports building the context for better performance in writing argumentative essays [14].

In the context of academic writing, there is verified pattern of relationship showing that critical thinking is initiated by topic familiarity and can be mediated by writing performance [15]. Topic familiarity is

affected by reading habit and prior knowledge while writing performance is relevant with language mastery as well as the ability to apply the schema theory of writing. The language factor is also proven to be a good predictor of student's critical thinking skills. Therefore, this study explores not only the factors related to language are observed but also some others which can affect the development of critical thinking skills.

I. METHODS

The present study employs case study design aiming at answering the research problems which reflect the real situation at the time of the study. The researchers hold the major role to gain sufficient data to understand the phenomenon better and to come at the deeper understanding on factors affecting critical thinking. There is no attempt given to manipulate the environment since the real assessment of critical thinking is done to get the valid data.

The data needed for revealing the level of critical writing and factors affecting it are in the form of the score on critical thinking assessed through writing. The source of the data is the essays written by 130 English department students of UIN Maulana Malik Ibrahim Malang who took writing II course. The factors affecting the level of critical thinking are measured using questionnaire.

To collect the data the first instrument used is critical thinking assessment through writing using a rubric. It is adapted from Stapleton [5] with combination with Jacob et al. [16]. The prompt of writing is in the form of argumentative writing. The rubric is used to minimize the bias resulting from the subjective nature of the assessment from the two raters involved in this study. The target of the assessment is to categorize the research subject into five levels covering elementary, pre-intermediate, intermediate, post intermediate and advanced.

TABLE 1. Rubric for Assessing Critical Thinking

Elements of Critical Thinking	Writing Expression	Assessment	Scale (5 to 10)
Argument	Writer's view point on the topic is presented in the form of claims supported by a reason	Quality of the arguments with the appropriate type of claim concerning the given topic	
Content	Writer's ability to express knowledgeable and substantive development of the topic	Quality of the topic exploration	
Evidence	Statements or assertions which serve to strengthen the argument	Quality of the evidence and appropriacy of its type	
Organization	The flow of ideas which communicate fluent expression of the idea for logical sequence	Quality of logical sequence representing the fluent ideas	
Conclusion	A statement or series of statements in which a writer sets out what s/he wants the reader to believe	Quality of the conclusion without involving any logical fallacies	
Total score			

In the rubric, the scale given refers to the quality of the elements expressed in the student's writing. The total score is then interpreted as the level of critical thinking ranging from elementary (scored 25-30) to advance level (scored 46-50).

The other instrument used is questionnaire. It consists of three sections, the cultural background in the first part which is followed by the information on family background and education. Other information searched is on the learning strategy or reading habit. These factors are investigated through the responses of the students in the questionnaire given.

II. RESULTS AND DISCUSSION

The data obtained which is based on the student's writing is presented in Table 2. On critical thinking the highest score gained is 48 while the lowest score is 25 with the average score is 33. The lowest possible score is 25 and the highest is 50. Therefore it can be inferred that the score obtained is within the pre-intermediate level.

TABLE 2 Student's level of critical thinking

Score	Total	Percentage	Category
25-30	45	45%	Elementary
31-35	20	20%	Pre-intermediate

36-40	20	20%	Intermediate
41-45	10	10%	Post-intermediate
46- 50	5	5%	Advanced

On the element of content, the student’s writing is scored on their ability to express knowledgeable and substantive development of the topic. In this aspect, the quality of the topic exploration mostly fall within the scale of elementary. It means that their ability to show their critical thinking through material exploration is sufficient as they have chosen their own topic to discuss in their paper. Unfortunately, they did not explore more on the possible aspect of discussion. It has something to do with the lack of the skill to synthesize ideas from several references needed to complete their writing.

The next element to observe is evidence. In this case the students are mostly fall in the scale of pre-intermediate. It means that their ability to make statements or assertions which serve to strengthen the argument is far from the expected target. In other words their quality of the evidence and appropriacy of its type still needs more improvement. Insufficient exploration of references or careful reading can be appointed as a supporting reason of this finding.

The fourth elements seen from the student’s writing is organization. Most student fall in the scale of pre-intermediate. This score represents the flow of ideas which communicate fluent expression of the idea for logical sequence. In average, their quality of logical sequence representing the fluent ideas is not supported by their rhetorical skill. They follow the standard writing format consisting introduction, discussion and conclusion. However, the other writing devices such as transition and coherence are not carefully implemented in their writing.

As the last aspect to observe, conclusion represents a statement or series of statements in which the student sets out what s/he wants the reader to believe. The students mostly fall within the scale of elementary. It means that the quality of the conclusions without involving any logical fallacies is presented in sufficient description. However, their writing needs improvement on the element of unity. As the thesis statement is not always presented explicitly, the conclusion made is also not representing the content of their critical thinking shown in their writing.

The data obtained from the first section of the questionnaire is summarized in Table 3. On cultural background, the highest response is on agreeing the acceptance to criticize teachers which means that more students accept the norm of openness to express their judgment by criticizing teachers.

TABLE 3. Cultural background

Aspects	Dominant response	Percentage
Criticizing teachers	Agree	63%
To be critical	Agree	58%
Not believing superstition	Indecision	56%
Teachers are not absolute authority	Agree	54%
Not believing stereotypes	Agree	53%
Correcting teachers	Agree	52%
Getting the correct answer	Agree	47%
To reason with parents	Indecision	46%
Not labeling critical people	Indecision	39%
Not showing disagreement directly	Agree	38%

The view of becoming critical person is on the second rank. It means that the students realize the benefit to develop their critical thinking. Concerning not believing superstition, it is interesting to see that it belongs to a difficult decision for the students. It has something to do with their culture where they are supposed to get used to believing superstition although they want to disbelieve it. That teachers are not absolute authority of knowledge has been an agreed statement which means that almost a half of them still think that teachers hold to somewhat range of authority. The students think that teachers are not individuals with absolute authority in knowledge. On the view of stereotyping other culture, half of them agreed not to believe it. On correcting teachers, it is clear that more students can accept it as a positive way. Getting the correct answer as the priority has been agreed by the students. On the next aspect, the students view that children are encouraged to reason with parents. In this case most students find it difficult to reason with parents although to some extent they are given opportunity to do so. Labeling people who are critical as fussy is also a difficult view to consider. Therefore some of them show indecision about it. As the last aspect, showing disagreement directly is impolite becomes an agreed viewpoint.

On the factors related with family background and culture, the data is presented in Table 4. The highest response is on agreeing for having the same right to give opinion as the elder sister/brother which means that

expressing critical thinking is viewed fairly in the opportunity not seeing whether one is older or not. Challenging elder's opinion is agreed half of the students. Similarly, asking questions at school has been another issue of critical thinking which is mostly agreed as a good habit. Not all family has the habit to have discussion. However, half of the students agree that they often have discussions with family members on any issues. Disagreeing is unavoidable but it is important to provide reasons as agreed the students. Another aspect representing family background is criticizing parents agreed by some students. On parents answering all questions, some said that they have that experience.

TABLE 4. Family background and culture

Aspects	Dominant response	Percentage
Having the same right to give opinion	Agree	55%
Challenge elder's opinion	Agree	54%
Ask questions at school	Agree	51%
Have discussions with family	Agree	50%
Providing reasons when disagree	Agree	49%
Criticizing parents	Agree	46%
Parents answer all questions	Agree	44%
A lot of books and resources	Agree	43%
Encouraged to have different opinion	Indecision	42%
Encouraged to read a lot	Indecision	40%

A lot of book and resources available at home also becomes indicator of critical thinking exposure which is agreed by the students. The exposure of critical thinking at school is given by the teacher of high schools. Yet, more students are indecision about it. It means that their high school teachers did not always encourage them to have different opinion. As the last aspect, the students are also doubtful about having sufficient encouragement from their parents to read a lot.

The last section of the questionnaire is on learning strategies and reading habit. The data is as shown in Table 5. The highest response is on agreeing for reading different kinds of books which means that it becomes a significant factor to develop critical thinking.

TABLE 5. Learning strategies and reading habit responses

Aspects	Dominant response	Percentage
Reading different kinds of books	Agree	56 %
Set study time	Agree	55%
Have study club	Agree	54%
Searching for different information	Agree	53%
Use internet to find reference	Agree	48%
Working collaboratively	Agree	47%
Ask a lot during the lesson	Indecision	46%
Watch debate/talk show on TV	Agree	45%
Write regularly to enhance skill	Agree	44%
As an independent learner	Agree	41%

Setting study time is not easy. However, a lot of the students agree that they set their study time and try to stick to it. They also have a study club as agreed to discuss assignment. The need to search for different information of the topic to be discussed in class is also varied. More students agreed to do so. Internet is also used to find reference as agreed half of the students. Another learning strategy namely working collaboratively is also agreed so that they can share and discuss more. The habit of asking a lot during the lesson is not an easy thing for the students. Therefore more students show indecision about it. On the exposure to argumentation, students stated that they often watch debate or talk show on TV. Writing regularly becomes another concern on critical thinking development. In this case, some students stated that they agree on the statement to write regularly, including daily journal. As the last aspect, the students can see themselves as independent learner. The data on the three components observed namely critical thinking, culture background, family background and learning strategies are shown in Table 6.

TABLE 6. Statistics of the components observed

Components	Minimum	Maximum	Mean	Standard Deviation
Critical thinking	25	48	33	6.9
Culture background	25	42	36	4
Family background	25	46	37	4.5
Learning strategies	26	47	37	4.4

Critical thinking, culture background and family background include the minimum possible score 25. Learning strategies apparently is more applicable for the students. In this case, none of the components reach the maximum possible score. Among them, the lowest average occurs in critical thinking and the highest score lies in learning strategies. It happens as the students implemented learning strategies more intensively compared to applying the principles of critical thinking in their everyday learning process. While the most disperse data concerns with culture background. It is understandable as this study involves students from various cultural background.

II. RELATIONSHIP BETWEEN CRITICAL THINKING AND OTHER FACTORS

On the first link between critical thinking and cultural background, the finding shows weak correlation (0.2). It reflects the fact that the critical thinking is not influenced by the student's culture practiced either at schools, at home or at society. The culture represented in how to interact with teachers especially on the acceptance of the habit to criticize teachers, not placing teachers as the absolute authority, and to correct teachers as reflected in the questionnaire does not influence the reflection of critical thinking as it is assessed through writing ability. In addition, the ability in showing reasoning with parents or showing disagreement directly or in straightforward manner also cannot be a judgment to see their critical thinking. This is because the medium of communication assessed in English not in Indonesian as practiced in their daily critical discourses.

The empirical findings from several studies have shown the link between critical thinking and several possible factors. As traced in this study, the largest portion of the factors are given to the cultural factor. It is in line with the finding in a university in Japan that learners from a particular culture are too diverse to make claims about the whole group's thinking abilities [5].

In this study, the students show various performance of critical thinking. This is relevant to the theoretical bases that critical thinking is not an instant knowledge to transfer to students [6]. Learning how to express critical thinking in foreign language also becomes a big matter to the students observed in this study. It has something to do with some other factors such as learning strategies and reading habit.

In this study, that Asian students especially Indonesia show lacking in critical thinking skills is understandable as proven in many empirical findings and as observed by teachers. This is due to the fact that the concerns of the education is still on knowledge exposure and elaboration. Meanwhile in developed countries the emphasis is on the shaping of critical thinking. The difference is obvious in the comparison between students of higher education in Hong Kong and New Zealand [17]. This fact shows that culture influences the educational practices of critical thinking. However, the influence of culture does not necessarily impede the application of critical thinking instruction in international classrooms. It brings implication that with appropriate adaptation, critical thinking instruction can be beneficial to the intellectual development of students regardless of their cultural backgrounds.

A notable factor affecting the ease to express critical thinking is the language proficiency. A critical thinker can express his or her thought well by means of good language use either in spoken or written form. That writing competence positively influences critical thinking performance as found in other course [7]. In addition, students' improvement in writing performance goes together with the improvement in the skill of expressing deeper levels of thought [8]. As the context of this study is similar to the study conducted in another university in Indonesia, similar difficulties take place [9]. The students obviously have difficulties to develop their critical thinking skills because of language mastery. There is only small number of students can reflect their argument though well organized English writing (20%). These findings advocate that language skill considerably becomes significant factor affecting critical thinking.

In this study, some students show limitation of the language that makes the argument unclear. While, the ease to expose argumentation depends on one's knowledge of good language and how to apply the knowledge into a discourse so that the critical thought is accessible to others. It is processing at the same time with the way a critical thinker formulate the way to develop their thought. Therefore, the finding of this study goes with the claim that the expression of thought can be understood by the audience or readers which depends on the use of either the strength or limitation of the language [10]. The result of this study has clarified the strong link between learning to express one's thought and critical thinking.

The limitation of language as observed in this study is related more to an aspect of the cross-cultural difference in critical thinking skill. This fact not only occurs in Indonesian students but also those in the higher education in Hong Kong [17]. As the implication, this study needs further empirical evidence of student's critical thinking by reducing the language factor. For instance by using student's first language in measuring their critical writing ability.

Not only the limitation in terms of language proficiency, the rhetorical performance also influence the ability to express critical thought. As found in this study only 10% of the students effectively use their rhetorical skill to augment the quality of critical thinking. This fact has something to do with their prior knowledge on rhetoric. Prior knowledge is also a significant factor affecting how well a critical thinker develop his or her reasoning [11]. Therefore, the students need to be equipped with the knowledge on the three measures which reflect critical thinking skills: the superstructure of argument, the Toulmin model of informal reasoning and the persuasive appeals.

In this study, the critical thinking project writing is done based on the student's topic of interest. Therefore, it can be inferred that each student wrote on the topic familiar to them. That critical thinking is directly influenced by the topic familiarity is also supported by some other researchers who commented on the lack of critical thinking skills displayed in the academic writing of Japanese ESL college students in using American topics [5]. Furthermore, that writing critically on what the students know is also a major issue [12]. Through the finding of this study, it can be concluded that topic familiarity plays an important role for developing reasoning skill and critical thinking skills.

In this study, the critical thinking project is done on literary review to the novel chosen by the student. The choice was made based on the student's interest and topic familiarity. In the student's writing, the better the students engaged with the topic, the better range and depth of argumentation will be. This is similar to the finding on the Japanese student's argumentative essays showing the power of content familiarity to shape both the range and depth of argumentation [5]. In similar EFL context with this study, another study in Indonesian context also found that the students who do not have prior knowledge or subject matter mastery gained through critical reading on the topic, will have problem to develop their critical thinking skills [9].

Concerning the relationship between critical thinking and other factors influencing its development, the finding of this study shows weak correlation. However, the relationship occurs in positive direction. It means that to some extent cultural background can be related to the issue of critical thinking, compared to the other aspects such as family background and learning strategies. It implies to the fact that in the context of English as foreign language, culture influences the development of critical thinking skills [5,9].

There are some underlying reasons clarifying this issue. The possible reason deals with the instrument used in this study. This study used the writing prompt for critical writing using English as foreign language. It needs further analysis on how the students perform their critical thinking in their mother tongue or in second language such as Bahasa Indonesia. A different result can be predicted as the language also plays an important role for the ease of expressing critical thinking. Therefore it can be inferred that the language factor is also proven to be a good predictor of student's critical thinking skills.

However, the disparity occurring in the level of critical thinking to some extent is affected by the mastery of the topic discussed in the student's paper. The better knowledge the student have, the expression of critical thinking is more observable. The result of this study also supports relationship showing that critical thinking is initiated by topic familiarity and can be mediated by writing performance [15]. Topic familiarity is affected by reading habit and prior knowledge while writing performance is relevant with language mastery as well as the ability to apply the schema theory of writing.

The weak relationship is also shown in the relationship between the critical thinking and family background and education. The correlation coefficient shows weak relationship between the two variables, critical thinking and family background (0.12). It is due to several reasons or aspects. The possible aspect concerns with disparity of the student's ability. Family background as identified in the questionnaire consists of the habit in the family such as the acceptance to criticize parents and have discussion on any issues or to give opinion as the elder. These happen in oral context, not referring to written context as assessed in this study. On the way to provide reasons when having disagreement to some extent has a role with the argumentation in the student's paper. However, the low habit of reading explains the elementary level of critical thinking shown by the content of their writing. That their ability to be involved in the discourse of critical writing is also influenced by their habit for having discussion, question and answer and having different opinion undergone during their studying at university level.

On the relationship between critical thinking and learning strategies as well as reading habit, the finding shows weak correlation (0.11). The observed learning strategies cover how the student's view himself as independent learner, asking a lot during lesson, and setting study time. These three aspects do not have direct relationship with their critical writing skill. In addition, the students also show lacking in writing regularly to enhance skill and having study club as well as working collaboratively to share more. These facts to some extent

explain the poor ability for critical thinking. However, the students were good in compiling ideas from various references as they have sufficient facilities to search for different information of the topic, using internet a lot to find references, and reading different kinds of books although not intensively done.

On the relationship between critical thinking and family background as well as education, the weak and insignificant correlation is found. It is in line with the study conducted by Gibson. He claims that the finding is in contrary to other published research that critical thinking has no significant relationship with intrinsic motivation such as parent education, family income and curricular activity. His study concerns with students of public school whereas the subject of this study is students of higher education [18]. Nevertheless, the similar finding is resulted despite the different context of education level.

Furthermore, on the relationship between critical thinking and learning strategies, it results in different finding. This study found insignificant weak relationship of both variables. The correlation found in several studies brings implication that developing learning strategies will contribute to critical thinking as it affect the success of language learning. In this case, it can be infer that the relationship between critical thinking and learning strategies occur in indirect link. As suggested by several findings mentioned previously that the language barrier becomes a major factor despite the cross cultural issue, while learning strategies will support the development of language which in turn help the students to reflect their critical thinking better.

III. CONCLUSION

On the level of critical thinking assessed through critical writing prompt, the students show poor reflection of critical thinking. Their level is still in elementary since the student's argumentation quality concerning the given topic mostly fall in the scale of elementary not supported by sufficient reasoning. The student's writing also belongs to elementary level in the aspect of the quality of topic exploration as they are weak in the skill to synthesize ideas from several references needed to complete their writing. The ability to support their ideas using evidence mostly fall in the scale of pre-intermediate. Insufficient exploration of references or careful reading can be appointed as a supporting reason of this finding. Concerning idea organization, most students fall in the scale of pre-intermediate. Their writing is not supported by sufficient rhetorical skill. While, on the last aspect to observe namely conclusion, the students mostly fall within the scale of elementary. However, their writing needs improvement on the element of unity. As the thesis statement is not always presented explicitly, the conclusion made is also not representing the content of their critical thinking shown in their writing.

The result of this study also reveals that a notable factor affecting the ease to express critical thinking is the language proficiency. A critical thinker can express his or her thought well by means of good language use either in spoken or written form. The students obviously have difficulties to develop their critical thinking skills because of language mastery. There is only small number of students can reflect their argument though well organized English writing. These findings advocate that language skill considerably becomes significant factor affecting critical thinking. The limitation of the language makes the argument in the student's writing unclear. While, the ease to expose argumentation depends on one's knowledge of good language and how to apply the knowledge into a discourse so that the critical thought is accessible to others.

As this study examined critical thinking and the factors influencing it, the next researchers can develop other variations of critical thinking assessment, for instance by relating critical writing of a subject with other variables such as critical reading or critical listening. The relationship between other possible factors such as learning style, self efficacy and learning motivation also needs further research.

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