STUDENTS’ CRITICAL THINKING REFLECTED IN THEIR WRITTEN RESPONSES ON NICENET

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Abstract

This research was conducted to analyze the student’s critical thinking in writing responses on Nicenet Internet Classroom Assistant (ICA) based on Anderson and Krathwohl theory. It is a qualitative research with content analysis method. The subject of this research was the document of students’ responses in online class Nicenet ICA in Communication Management subject that was conducted in semester seven in 2014, batch 2010 and 2011 in the Department of English Language Education of UIN Ar-Raniry Banda Aceh. The result of this study suggested that participating in Nicenet ICA gave positive effects on students in increasing their critical thinking skill in writing. This can be seen through the final result that 92.30% of those documents represent the critical thinking ability in the highest level while the rest were in the medium. It can be inferred from this study that the use of Nicenet as a media of learning can promote and develop the students’ critical thinking skill.

Keywords: Critical Thinking; Writing; Nicenet ICA

Abstrak

Penelitian ini dilaksanakan untuk menganalisa kemampuan berfikir kritis mahasiswa dalam menulis respon di dalam Nicenet Internet Classroom Assistant (ICA) berdasarkan teori Anderson dan Krathwohl. Penelitian ini merupakan penelitian kualitatif dengan menggunakan metode content analisis. Subjek penelitian ini yaitu dokumen respon mahasiswa di kelas online Nicenet ICA pada mata kuliah communication management di semester tujuh pada tahun 2014, pada siswa angkatan 2010 dan 2011 pada Prodi Pendidikan Bahasa Inggris UIN Ar-Raniry Banda Aceh. Hasil penelitian menunjukkan bahwa dengan...
ikut berpartisipasi di dalam Nicenet ICA memberikan efek positif kepada mahasiswa dalam meningkatkan kemampuan berfikir kritis mereka dalam menulis. Hal ini terlihat dari hasil akhir yaitu 92.30% dari dokumen menunjukkan kemampuan berfikir kritis dan termasuk dalam kategori tinggi sementara selebihnya berada dalam kategori medium. Dari penelitian ini dapat disimpulkan bahwa penggunaan Nicenet sebagai media pembelajaran dapat meningkatkan dan mengembangkan keahlian berfikir kritis mahasiswa.

Kata Kunci: Berfikir Kritis; Menulis; Nicenet ICA

INTRODUCTION

Thinking is an ability of human being in filtering information received before deciding it as a conclusion. However, Scriven and Paul (2004) said that “thinking is a natural process, but left to itself, it is often biased, diverge, partial, less information, and potentially prejudiced, excellence in thought must be cultivated”.\(^1\) Therefore, transforming the natural entity of thinking into a more critical one is really important. Critical thinking is more than just knowledge acquisition or a collection of processing skills; rather it is the development and continual use of analytical skills. It is seen as a necessary life skill whereby the process improvement of thinking basically is creating the habit of reflection and questioning in every aspect of life.\(^2\) To be called a critical thinker, someone should be able to critically analyze and evaluate problems or information. A more thorough description of a critical thinker’s characteristics is that in processing the information, they tend to raise some critical questions, and then formulate them clearly and concisely. Before drawing a conclusion to the problems, they always gather and evaluate relevant details by referring to abstract ideas, think open-mindedly, and communicate effectively with others.

Critical thinking is relevant to any discipline, including English language teaching. In teaching and learning all of the language skills comprising listening, speaking, reading, and writing, critical thinking is very important. In every part of learning, it is necessary to think critically and analytically, especially writing skill. According to Tuan (2012), writing is all about process, not a product. He added that the writing process is a sharp tool to discover meaning, to perfect a piece of writing both in thoughts and in grammatical accuracy and to

\(^1\) Scriven, M., & Paul, R. (2004). The Critical Thinking Community. Retrieved on November 28, 2015, from http://www.criticalthinking.org/aboutCT/definingCT.shtml.

\(^2\) King, A. (1995). Designing the Instructional Process to Enhance Critical Thinking Across the Curriculum. Teaching of Psychology, 22(1), 13-17. And also see Scriven, M., & Paul, R. (2005). Defining Critical Thinking. Retrieved on February 10, 2015 from the Foundation for Critical Thinking website: http://www.criticalthinking.org/aboutCT/definingCT.cfm.
bring intelligence to the writing. So in writing process it is a need to have a deep analysis before taking an idea as a companion to write.

Talking about critical thinking in writing, an educator has various ways to teach students’ about it right now. As a fact shows that in this modern era everything becomes easier because the world has provided a sophisticated technology in enjoying daily life such as internet. Internet has made this life completely easy in many aspects, not only as a source of information but also as a media of communication. It is easier for people to create a communication via internet in doing something, whether for business, entertainment or even for studying because people can access internet everywhere, mainly in public space, for instance, in the garden, office building, library, at the campus and at the coffee shops. Internet not only can be accessed by using computer, but it can also be accessed by using mobile phone.

Discussing about internet as a media of learning, in addition, the commission of technology stated that technology can make education more productive, more individual, powerful, and make learning more immediate. This positive effect of technology has given a great impact to education practitioners. They are able to communicate with their students easily, either for continuing an unfinished subject explanation in face to face class or for giving a task to be done or even for consulting about a complicated assignment. In line with the explanation, nowadays some universities have also implemented e-learning, such as Facebook, Skype, Nicenet ICA, etc. Recently, Nicenet Internet Classroom Assistantis the online class commonly used by lecturers to support the teaching learning process.

Nicenet is a new phenomenon in education. It is a web-based tool created especially for online class to run an educational program at any levels including universities, schools, courses, etc. It enables two-ways communication between members, schedule announcement and schedule changes, task notification, useful web links sharing with other members, and electronic submissions. So the lecturer and the students can continue the teaching-learning process at home, they do not need to meet each other in terms of discussing about a subject because they can discuss it and argue via internet.

In Nicenet the students are required to read and write something based on a topic that has been given by the lecturer. Every student has to post their own assignments and also leave a comment on their friends’ assignments. That is why writing skill is really important in this type of online class. In addition, to be good in writing, there are some parts that every student must get engaged with, such as correct grammar usage, punctuation, spelling and also critical thinking. In this case, critical thinking dominates as an important part of writing in Nicenet because the students must understand the lecturer’s instruction, the topic of discussion, so that they can give their comments correctly related to the topic.

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3 Tuan, L. T., (2012). Teaching Writing Through Reading Integration. *Journal of Language Teaching and Research, 3* (3), pp. 489-499.

4 Tickton, G. S., (1970). *To Improve Learning: An Evaluation of Instructional Technology*. New York: R.R Bowker.
Considering the potential positive effects of Nicenet on students’ learning, this online class was also implemented in English Department of UIN Ar-Raniry, Banda Aceh. The class was conducted in semester seven on Communication Management subject. This paper intends to analyze how the students’ critical thinking is reflected in their responses on Nicenet.

THEORETICAL FRAMEWORK

Critical thinking is a process in answering a question of a problem. It is in line with Edward’s opinion which proposed that critical thinking is defined as the correct assessing of stated information or text, be it written, oral or visual. It is an integral part of problem-solving process. Moreover, critical thinking is very simply stated as the ability to analyze and evaluate information.

Furthermore, some experts also view critical thinking as skill that has different level of cognitive ability. One of them is Bloom who identified six levels within the cognitive domain which are related to a different level of cognitive ability. However, the Bloom theory has been revised by Anderson and Krathwohl into a simpler form and this helps the researcher in analyzing the critical thinking ability. The names of six major categories were changed from noun to verb forms. The revised version comprises remember, understand, apply, analyze, evaluate and create.

RESEARCH PROCEDURE

The subject of this research was the documents of thirteen students’ responses on online class Nicenet ICA. The selected documents were the comments of the students who had accomplished academic writing class. This means that they have already understood about some significant elements in writing. Moreover, the focus attention of this research was the ability of the students in using critical thinking in their writing. The writer chose the documents in Communication Management class that was conducted in semester 7 in 2014, batch 2010 and 2011 to be analyzed in this study. It was chosen because in this class the students were often asked to write and respond to a given topic which requires students to think more critically rather than other classes. The students were required to leave a response to the topic given and also leave a comment to their friends’ response.

The technique used in this research was content analysis. Content analysis is a research tool used to determine the presence of certain words or concepts within texts or sets of texts. The writer quantifies and analyzes the meanings and relationships of such words and

5 Edward S. & Dennis S., (2005). Is a Critical Pedagogy for the Profession of Social Work Possible? Journal of Teaching in Social Work. 25 (3-4), pp. 1-18.
6 Duron, R., Limbach, B and Waugh, W. (2006). Critical Thinking Framework For Any Discipline. International Journal of Teaching and Learning in Higher Education, 17 (2), pp. 160-166.
7 Bloom, B. S., (1956). A Taxonomy of Educational Objectives. Handbook 1: Cognitive Domain. New York: David McKay Co Inc.
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concepts, then makes a conclusion about the messages within the texts. Texts in a single study may also represent a variety of different types of occurrences, such as teacher interviews, writing journals, classroom discussions and lectures, and out-of-class interaction sheets. That is why the comments in Nicenet ICA can be categorized as one of the texts that are appropriate in content analysis method.8

This content analysis was guided by a rubric. It is a scoring guide used to evaluate the quality of students’ constructed responses. In addition, it describes the parts, indicators, criteria and levels of performance in a particular task, product, or service. Rubrics usually contain evaluative criteria, quality definitions for those criteria at particular levels of achievement, and a scoring strategy. They are often presented in table format to judge quality and used to translated difficult or unwieldy data into a form that can be used for decision-making.9 The rubric used in this analysis is as the following.

Table 3.1: Critical Thinking Rubric

| Levels of Thinking          | Points | Process Verbs & Behavior Descriptors                                                                 |
|-----------------------------|--------|--------------------------------------------------------------------------------------------------------|
| Low: Remember or Understand | 1      | Explain, list, describe, recall, define, identify, show, restate, summarize, list, demonstrate, illustrate. |
| Medium: Apply or Analyze    | 2      | Organize, classify, relate, prioritize, discuss, group, model, apply, compare, contrast, distinguish, categorize, take apart, combine. |
| High: Evaluate or Create    | 3      | Extend, design, reconstruct, reorganize, create, develop, speculate, propose, predict, generate, interpret, judge, justify, critique, evaluate use criteria, dispute. |

RESULT AND DISCUSSION

Thirteen responses were chosen to be analyzed in this study. The selected responses were based on one topic with three different sub-questions. Automatically, this kind of question requires the students to respond in a long answer to cover all details. The responses

8 Carol B., et. al. (1994-2012) in Writing@CSU. Content Analysis. Colorado State University. Retrieved on October 25th, 2015 from http://writing.colostate.edu/guides/guide.cfm?guideid=61.

9 Popham W. J., (1997). What’s Wrong and What’s Right with Rubrics. Educational Leadership, 55 (2), pp.72–75.; also see Dawson, P., (2015). Assessment Rubrics: Towards Clearer and More Replicable Design, Research and Practice. Assessment and Evaluation in Higher Education. Retrieved on November 25th, 2015 from http://www.tandfonline.com/doi/full/10.1080/02602938.2015.1111294; also see Megan, J. O., (2007). Using Rubrics to Collect Evidence for Decision-Making. What do Librarians Need to Learn. 2 (3) Retrieved on December 20th, 2015 from https://ejournals.library.ualberta.ca/index.php/EBLIP/article/view/261.
vary in showing the criteria of critical thinking ability, such as comparison, definition, interpretation, model, identification etc. However, grammatical error is not as an attention to be scored in here.

The analyses of the comments were systematically arranged from the low to the high level based on the criteria found in the comments. To simplify the writer in analyzing the data, the documents studied are presented in tabular form by grouping the comments and critical thinking indicators separately. Furthermore, those data will be followed by an explanation.

All thirteen selected responses are based on the following Nicenet prompt.

Q: Write a more-less 150-words reflection in this thread that covers:

a. Your definition of intercultural communication,
b. What does one need to know in order to avoid communication breakdown or misinterpretation due to intercultural encounter,
c. What would you do to raise your awareness (academically maybe) in order to achieve successful intercultural communication in the future?

The following is the analysis of the comments corresponding to the presented prompt based on the level of critical thinking.

| No. | Students’ Comments                                                                                                                                                                                                                                                                                                                                 | Critical Thinking Indicators | Critical Thinking Level |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------|
| 1.  | **Intercultural communication means an interaction that happened or exchange across between different cultures or social groups.** We need to know that the speakers have different background of knowledge, behaviours, beliefs, customs, the way of thinking. So, we must respect each other. To raise the awareness (academically maybe) in order to achieve successful intercultural communication in the future is we have to know, understand the others cultures, so that we can grow up our tolerance for difference each other. | Define, Identify, Summarize  | Medium                  |
| 2.  | **Intercultural communication means sharing information among people from different background culture that have different way of thinking and communicating. People from different cultural groups interact with one another, learn and grow together and also build relationship. To avoid communication breakdown or misinterpretation due to intercultural encounter is we must know with whom we are talking first because some people have different culture, knowledge and**                                                                                   | Define, Identify, Propose    | High                    |
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| behaviours.  
So, we have to appreciate another culture, try to understand their culture and be a good listener.  
To raise our awareness in order to achieve successful intercultural communication in the future is reading everything about culture and social life; interact with the people who have different culture. |
|---|
| 3. **Intercultural communication is communication among people who has different background culture.**  
To avoid communication breakdown is appreciating the other cultures while communicating although that is strange for us.  
To raise our awareness in order to achieve intercultural culture are reading everything that we think useful in our life, wall magazine, books, sharing information, appreciating while she/he is talking not laughing him, and we should keep communication with people in different culture. |
| Define, Propose, Example or Model, Propose | High |
| 4. **I think intercultural communication is sharing information or exchange across different cultures or social groups.** In this case we try to understand how people from different culture backgrounds communicate, act, etc.  
One that we need to know in order to avoid communication breakdown or misinterpretation due to intercultural encounter is try to understand other cultures, we should respect its differences and recognize that each people has different culture backgrounds which can influence the way of they communicate and act.  
To raise my awareness (academically maybe) in order to achieve successful intercultural communication in the future I would try to understand others culture by reading the book, discussing the differences between cultures, and practice to talk with people who has different culture background with me. |
| Define, Propose, Demonstrate | High |
| 5. **Intercultural communication simply refers to exchanging information among individuals from different cultures.** It involves the study of the process of communication, and how they act when they communicate to others. |
| Define, Interpret, Example or Model, Interpret | High |
|   |   |   |
|---|---|---|
| 6. | *For example we can see at how closely Acehnese and Japanese sit or stand when they talk with each other.* When we interact with persons from whose values are different from ours we must first recognize and acknowledge our differences, accept diversity, understanding gestures they use and communicate in a meaningful way. **Successful intercultural** Some ways can be used to raise awareness in achieving communication in the future is by accepting the fact that our culture is not superior to others and by learning more about other cultures. | Interpret |
| 7. | *I think intercultural communication is an interaction among people where they absolutely has different cultural backgrounds as they try to share any information each other.* From definition above, we may find any problems or misinterpretations occur when someone has to survive with the culture differences. **To avoid that,** someone has to count what the elements affected with communication behaviour of other people and their types of behaviour. **To be aware with this case,** I think we should understand deeper about other people and their cultures. We need to know exactly how to deal with the cultures and many elements of it that are different from ours. | Define, Identify, Propose, Propose |
| 8. | *Intercultural communication means sharing information or exchange across different culture or social groups. In such a situation cultural differences are not a barrier to communicate each other.* **To avoid communication break down or misinterpretation due to intercultural encounter** someone needs to learn other cultures, their habit, their behaviour and we have to be open-minded which means that open towards new ideas and experiences or we have to be tolerant and sensitive. **To raise our awareness in order to achieve successful intercultural communication in the future we need to recognise different cultural patterns at work in the behaviour of people from other cultures.** | Define, Interpret, Propose |

|   |   |   |
|---|---|---|
|   |   | High |

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exchanging information between two cultures. If it happened we have to do something about it, such as to say that we have not understand or to ask for an explanation. Good language competence, knowing cultural differences, good knowledge of grammar, paying attention to the feedback and age are the tools in the hard of translator/interpreter that help to save a translation/interpretation as communication process from breakdowns.

As we communicate with people from different cultures, we learn about them and their way of life, including their value, history, habits and substance of their personality. As our relationship develops, we start to understand them better, perhaps even empathizing with them and we can develop a tolerance for difference. This can be accomplished only when we initiate relationships with people who are different from ourselves.

9. Intercultural communication is a communication that’s occurred in communicating among those who has different cultures, customs, and social background. So the communication may have variance. It’s usually appear in an organization who involved the people from all around the world. Here, each people should try to respect each other.

One need to know in order to avoid communication breakdown or misinterpretation due to intercultural encounter is try to understand and respect each other background of communication. The way of communicate is also one of the cultures appearance. So recognizing the way people communicate is really important in order to avoid misunderstanding among us. To raise our awareness (academically maybe) in order to achieve successful intercultural communication in the future we must aware, recognize, read, listen, and understand a lot people’s cultures. We cannot easily do stereotype toward what people do. The more we know and respect the differences the better communicator we are.

10. Intercultural communication is the interaction that occurs between two or more people from different
What I need to know in order to avoid communication breakdown or misinterpretation due to intercultural encounter is I must be aware that other people may have different systems of knowledge, values, belief, customs, and behaviors.

To achieve successful intercultural communication in the future, I would try to understand the differences between my culture and others then I utilize it in preparation and develop my ideas to help me become a more effective communicator.

People can prevent communication breakdown by learning other cultures that they come in contact with. This can be obtained through training programs, general reading, talking to people from different cultures, and learning from past experiences, familiarizing with the knowledge about other cultures and behaviors, feeling empathy (understanding feelings and needs of other people) and keeping attitude (compassion, trust, openness, honesty, non-judgmental).

Effective intercultural communication can be improved by learning effective listening skill, recognizing intonation, watching for any changes in body language, investigating their culture's perception of your culture by reading a lot, having cultural sensitivity and cultural awareness.

To avoid miscommunication breakdown is we must know that everybody has their own way to think and communicate, so we should appreciate each other to have well communication.

To raise our awareness in order to achieve successful
### Table of Critical Thinking Indicators

| Level | Indicators                                                                                           | Define | Explain | Propose |
|-------|-----------------------------------------------------------------------------------------------------|--------|---------|--------|
| High  | Intercultural communication is a communication that happened among people with different cultures which they struggle to achieve the best communication among them. People able to avoid communication breakdown or misinterpretation due to intercultural encounter by reading/exploring a lot about other people cultures and also active in communicating and be a good listener. To raise our awareness in order to achieve successful intercultural communication in the future we have to tolerance, accepting each other cultures, and try to build the best communication. |        |         |        |

Based on the document analysis of critical thinking in writing responses on Nicenet Internet Classroom Assistant, the writer identified that the level of critical thinking varies. It can be sum up that almost all of the comments indicate the critical thinking ability in high level. As the data shows that 0% or no single comment from the responses identified the critical thinking in a low level ability. Moreover, there is only one comment or 7.69% is included in the medium level. Otherwise, the highest critical thinking criteria dominate the rest of the comments. The significant difference that can be seen is those twelve responses or 92.30% of all documents represent the critical thinking ability in the highest level.

This result was obtained based on a strict rule to be followed. A comment can be identified as a low, medium or high level depends on the highest level indicators found in the responses. There is no single comment from those data that was categorized in a low level because the writer did not find the lower level criteria of critical thinking in the students’ responses without combining with the medium and the high level criteria. Although the lower critical thinking indicators dominated in the certain comment, such as definition and identification, it does not mean the student responses have a low critical thinking ability as long as there is one medium or high criterion is included in the comment, such as propose and interpretation. It is because the principle of taxonomy is hierarchical, which means that each level is subsumed by the higher levels. In other words, a student functioning at the creating level has also mastered the material at the evaluating, analyzing, applying, understanding or remembering levels. That is why there is no a single comment is categorized in low level. Moreover there is only one comment categorized in medium level and the rest are in the high.

For further explanation related to the critical thinking criteria found in the whole responses, there are various critical thinking indicators that appear in the comment, from the lower level to the highest. The indicators that used to be found by the researcher in the lower
level criteria are *definition, identification, demonstration* and *summary*. In addition, the indicators that used to be seen in the medium level are *modelor example* and *comparison*. The last, the indicators that used to be appeared in the highest level are *suggestion* and *interpretation*. However, the majority of the comments are dominated by the lower indicators criteria, because most of the comments contain of it.

As a further matter, besides analyzing these responses by using the main theory from Anderson and Krathwohl, the writer also additionally analyzed the responses by using the old theory from Bloom Taxonomy. In Bloom theory there are six levels in investigating the critical thinking ability, which are knowledge, comprehension, application, analysis, synthesis and evaluation. Otherwise, there are only three levels in analyzing the critical thinking ability by Anderson and Krathwohl, there are low level, medium level and high level. Surprisingly, the result stays the same. The majority of the comments in the Nicenet ICA were also categorized in a high level of critical thinking. However, there were some criteria that were totally different from each other. For instance, just like the *interpretation* criteria, while in Bloom Taxonomy it is included in the second level, in Anderson and Krathwohl is in the third. Overall, the revision theory from Anderson and Krathwohl is simpler than Bloom Taxonomy theory.

**CONCLUSION**

The findings of this study suggest that the use of Nicenet as a media of learning for students in English department of UIN Ar-Raniry can promote and develop the students’ critical thinking skill. This has been confirmed through the finding that most of the students’ comments on the selected prompt in Nicenet were categorized in high level of critical thinking.
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