

**STUDENTS' CRITICAL THINKING
IN PARTICIPATING STUDENT-STUDENT DISCUSSION SESSION
AT RESEARCH DESIGN SEMINAR**

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Abstrak:

Studi kasus ini bertujuan untuk meneliti kualitas berpikir kritis mahasiswa dari program studi Bahasa Inggris yang berpartisipasi dalam seminar desain penelitian (N=15). Data berasal dari transkrip sesi tanya-menjawab pada saat seminar. Pada penelitian ini, pemikiran kritis dilihat dari kemampuan mereka dalam *memahami, mengevaluasi, menyimpulkan* atau *menjelaskan*, dan *meregulasi diri* terhadap informasi yang mereka dapatkan saat berdiskusi. Dari 15 partisipan, 10 mahasiswa bertugas sebagai pembahas, sedangkan 5 mahasiswa lainnya bertugas sebagai presenter pada lima seminar yang berbeda. Data mengindikasikan bahwa kemampuan berpikir kritis mahasiswa terlihat pada sebagian besar kegiatan diskusi (94.12% dari sisi pembahas dan 70.59% dari sisi presenter).

Kata Kunci: Berpikir kritis, Diskusi, Desain Penelitian

Abstract:

This case study aims to investigate critical thinking quality of English students who participated in research proposal seminars (N=15). The data were derived from transcript of the asking and answering sessions of the seminars. In this study, critical thinking was shown by the students' ability to *interpret, evaluate, conclude* or *explain, and self-regulate* the information they absorbed from the discussion. From 15 participants, 10 students acted as discussants and 5 students acted as presenters in five different seminars. The data indicated that majority of discussion events (94.12% from discussants and 70.59% from presenters) revealed critical thinking.

Key words: Critical Thinking, Discussion, Research Design

Critical thinking has been widely discussed by researchers and educators around the world. However, their views and interpretations in defining critical thinking are sometimes contradictory to each other. Cassanave (as cited in Rozimela, 2008) points out that critical thinking has two beliefs that against one another among the L2 educators. Those who believe that critical thinking is a culture of Western society, argue that it is not a requirement for other society that has their own way of thinking to develop critical thinking. Atkinson (as cited in Rozimela, 2008) argues that critical thinking is a habit in particular culture where people learn through their daily socialization. Therefore, Atkinson states that it is probably impossible to teach critical thinking to L2 learners who have different thinking style in valuing individualism, self-expression, and language

as tool for learning.

On the other hand, some others consider critical thinking as a basic human survival mechanism that needs to be developed by any society (Cassanave, as cited in Rozimela, 2008). Moreover, critical thinking is stated as the “central aim of education [world]” (King, Wood, & Mines, 1990, p. 167). Here, Gieve and Hawkins (as cited in Rozimela, 2008) believe that critical thinking also needs to be introduced and taught to the non-Western students to achieve success in their study. Particularly, it is needed by university students who are expected to actively evaluate any idea and information as independent and self-directed thinkers instead of passively absorb all the information in class as what high school students do (Bassaham, Irwin, Nardone, & Wallace, 2011). At this point, Bassham, Irwin, Nardone, and Wallace (2011) argue that critical thinking helps the students in understanding and evaluating what they have learned in class, as well as helps them in developing and defending their own well-supported arguments and beliefs.

However, to promote students’ critical thinking, learning activities should involve the students in making decision on all dimensions of problems, so that the students can reflect their own opinions and monitor their own thinking (Wallace, 2003). Here, Kam-Fai (1973) argues that discussion activity will force the students to engage actively in the teaching learning process, stimulate the students to unite their knowledge and their thinking skills, practice the students to state their ideas and concepts in their own words, and challenge the students to consider the issues more thoughtfully from different points of view. Besides, asking and answering process during their discussions also promote them to critically seek information and make judgment (Freely & Steinberg, as cited in Malmir & Shoorcheh, 2012).

In that case, as what majority of the researchers have argued, it is important for one to effectively engage with cognitive skills in order to make one thinks critically (Facione, 1990). A consensus of critical thinking experts compiled by Facione in 1990, known as Delphi Report, has listed the cognitive skills in critical thinking as follow; interpretation, analysis, evaluation, inference, explanation, and self-regulation skill. At the *interpretation* level, critical thinkers show their comprehension by clarifying and expressing any idea accurately. Meanwhile, at the *analysis* level, they identify and detect the relationship of each essential part in the idea or thought. Next, at the *evaluation* level, they show their judgment on the credibility, or logical strength of any information. After they comprehend, analyze and evaluate the idea or thought, they can make reasonable *conclusion* based on adequate evidence and facts. By making reasonable conclusion, they can present cogent argument in defending their ideas; which represents their *explanation* skill. The last, at the *self-regulation* level, critical thinkers are expected to be able to analyze and evaluate their own thinking to monitor its fairness.

Besides involving the cognitive skills, critical thinking is also associated with affective dispositions that characterize good critical thinker (Facione, 1990).

According to Facione (as cited in Lai, 2011), affective dispositions act as consistent internal motivations that affect their thinking flexibility and quality in

dealing with any situation. Hence, Paul (2005, p. 54) argues that “the ultimate goal of critical thinking is to foster the development of intellectual traits or dispositions”. In this case, Lai (2011) notes that some researchers (Bailin et al., 1999; Ennis, 1985; Facione, 1990, 2000; Halpern, 1998; Paul, 1992) tend to identify similar dispositions of critical thinking such as (1) open-minded to the opposing points of view, (2) assess their own beliefs and ideas fairly and honestly without influenced by particular interest, (3) no take something for granted, reach to conclusion based on proper facts and evidence, (4) have curiosity in questioning the detail to obtain proper information, (5) have willingness to get relevant information, (6) have flexibility in considering alternate opinion, and (7) respect others’ points of view by trying to understand others’ opinion before making judgment.

To sum up, Bassham, Irwin, Nardone, & Wallace (2011, p. 1) conclude that critical thinking is

the general term given to a wide range of cognitive skills and intellectual dispositions needed to effectively identify, analyze, and evaluate arguments and truth claims; to discover and overcome personal preconceptions and biases; to formulate and present convincing reasons in support of conclusions; and to make reasonable, intelligent decisions about what to believe and what to do.

However, critical thinking is not merely a skill of cognitive engagement, but also a skill that reflects the quality of one’s thought. It is the quality of a thought that makes critical thinker is different with uncritical thinker. Therefore, Paul (2005, p. 54) argues that “all thinking must be assessed for quality by using universal intellectual standards”. Without internalizing and routinely using the intellectual standards, one’s thinking will not improve and reflect the critical thinking dispositions (Paul, 2005). Paul and Elder (2002, 2005) has formulated nine intellectual standards of thought that are important to be applied in one’s thinking process. They are clarity, accuracy, precious, relevance, depth, breadth, logic, significance, and fairness.

According to Paul and Elder (2002, 2005), without adequate *clarity* in the information, the information cannot be determined whether it is accurate, relevance or not because the meaning of the information is hard to understand. Hence, clarity of the information is an important triggering point before one involves with further standards of thought. Meanwhile, *accuracy* is important to result a justifiable reasoning based on proper facts and evidence. On the other hand, a statement can be both clear and accurate but not *precise* when there is no sufficient information to describe it in detail or specific. Besides, a statement can also be clear, accurate, and precise but not *relevant* to the question at issue when one does not know how to analyze the issue for what truly bears on it.

Paul and Elder (2002, 2005) also argue that a statement can be clear, accurate, precise, relevant, but superficial. Hence, exploring the complexities of any idea, issue, or information is needed to enable one to think *deeply* toward any implication that would occur for any situation or action. Moreover, being open-minded to the multiple points of view related to the issue being discussed is also important to avoid one’s thinking lack of *breadth*.

Another standard of thought that is also important is *logic*. Here, illogical reasoning will occur when the combination of ideas are contradictory in some sense of combination, or not mutually supporting. By supporting or defending the ideas with relevant and sufficient information that are not contradictory to each other, the reasoning will sound logically. On the other hand, being *significant* in exploring or presenting information is also important to result deep and significant investigation on the issues. The last one is *fairness* standard in one's thinking. At this point, being fair in considering any idea or issue (not influenced by personal interest) is needed to avoid unjustified assumption, unsupported statement, or faulty inference.

In English Teacher Training Education study program at Tanjungpura University, student-student discussion session at Research Design Seminar is one of the classes that force students to think critically. This discussion session involves students in exploring and examining issues or phenomena about research in the EFL field. In this discussion session, one student who participates as a presenter has to present research topic to be discussed with two other students who involve as discussants. The presenters deliver their ideas to clarify, explain, and defend their research designs with well-founded arguments that were based on proper fact and data. Meanwhile, the discussants have to monitor their own understanding on the information that is conveyed by the presenters, and decide what questions they need to ask in exploring presenter's research designs. Without critically asking proper questions at the time, they will not be able to get the heart of the issues being discussed. At this point, however, Rozimela (2008, p. 96) argues that "critical thinking questions do not depend of the form of the questions, but the information needed to answer the questions and the process of answering the questions". Besides asking questions, discussants are also expected to voice their opinions critically. Here, discussants express their views to examine the logic of presenter's research design ideas.

In this study, the investigation focuses on the assessment of the quality of students' critical thinking skills (from the discussant's side and the presenter's side) during their participation in the discussion. Even though the findings of this study cannot guarantee the representation of the wider population, the analysis of students' strengths and weaknesses in demonstrating critical thinking skills can be meaningful for students to self-evaluate their own reasoning quality and guide them in how to participate critically in the discussion.

Method of Research

To enable the writer to analyze the students' critical thinking skills quality, their contributions were analyzed based on thematic content analysis approach. This approach is the most common unit of analysis that the researchers use in measuring critical thinking evidence in discussion forum (Rouke et al., as cited in Williams and Lahman, 2009). Here, the themes are "generally understood as any expression of a single thought or idea" in describing the evidence of critical thinking (Williams and Lahman, 2009, p. 6).

The participants in this study were taken from 5 Research Design Seminars

of English Education Study Program of FKIP Tanjungpura University in the even semester of academic year 2010/2011. They were 15 students (5 students as the presenters and 10 students as the discussants). The observations were done to record students' asking and answering sessions in the seminar; which were then transcribed. To analyze the student's contributions quality, the writer referred to the presenter's research design to identify the discussant's questions that called for textual information. Besides, the research design was also used to investigate the relevance, consistency, and accuracy of the presenters' answers. The next step was to mark the students' contributions in the transcriptions that represent certain unit of meaning. If the contribution contained more than one critical thinking process, the contribution was coded based on the most important critical thinking process that appeared in the contribution. The last procedure was to classify the coded contributions into critical or uncritical contributions based on standards of thought in the critical thinking model.

The themes in this critical thinking model are adjusted to the emerging data of this study. This critical thinking model is also influenced by the works of Bullen (1997), Gunawardena, Lowe, and Anderson (1997), and Williams and Lahman (2009). Meanwhile, the quality of students' contributions (critical or uncritical) in this critical thinking model refers to Paul's and Elder's (2002, 2005) intellectual standards of thought.

Table 1. Critical Thinking Model for Assessing Students' Participation

Category	Indicators of critical thinking skills (+)	Indicators of uncritical thinking skills (-)
Basic Clarification (BC)	<ul style="list-style-type: none"> • Asking questions of clarification to confirm the meaning of theoretical, textual, or stated information • Restating, paraphrasing, summarizing the stated information clearly • Elaborating the terms, definitions, or theoretical information accurately 	<ul style="list-style-type: none"> • Asking inappropriate or irrelevant questions • Answering the questions of clarifications irrelevantly, inaccurately, or unclearly
In-Depth Clarification (DC)	<ul style="list-style-type: none"> • Exploring the imperfections in other's ideas, statements or information • Seeking further information to clarify detail of statements or information • Presenting relevant and significant additional information 	<ul style="list-style-type: none"> • Seeking unimportant, irrelevant information • Presenting irrelevant, insignificant further information • Repeating information when they are asked to elaborate

Assertion (A)	<ul style="list-style-type: none"> • present own views, make value judgment, present simple explanation, draw conclusion, and make inference or generalization to help the other students in re-evaluating their flawed ideas, concepts, and statements. 	<ul style="list-style-type: none"> • Use inappropriate criteria or irrelevance information for making generalization, drawing inference, presenting explanation or judgments
Justification (J)	<ul style="list-style-type: none"> • provide justification for judgments by providing proof or evidence such as examples, discussing advantages and disadvantages, presenting analytical support and personal experience or previous knowledge. 	<ul style="list-style-type: none"> • Providing irrelevant, inaccurate, illogical reference, literature, information in supporting or defending the position
Resolution (R)	<ul style="list-style-type: none"> • Reframing, revising, changing own ideas or statements as a result of self-assessment process • Offering significant and relevant solution to the problem 	<ul style="list-style-type: none"> • Presenting inappropriate or irrelevant strategy or solution to overcome the problem.

Research Findings and Discussion

As there were two main research problems in this study, the research discussion is divided into two parts; the discussants' critical thinking quality and the presenters' critical thinking quality.

1. Discussants' Critical Thinking Quality

The findings show that 94.12% of discussants' contributions evidenced their critical thinking skills into three categories: basic clarification category, in-depth clarification category, and assertion category. Meanwhile, uncritical thinking evidence was only found in basic clarification category (5.88%). There was none of discussants' contributions fell in justification and resolution category.

Table 2. Numerical Summary of Discussants' Contributions Quality

Category	BC	DC	A	J	R	+	-
Total +	16 (47.06%)	13 (38.24%)	3 (8.82%)	0%	0%	32 (94.12%)	
Total -	2 (5.88%)	0%	0%	0%	0%		2 (5.88%)
TOTAL	18 (52.94%)	13 (38.24%)	3 (8.82%)	0%	0%	34 (100%)	

Interestingly, the findings show that 70% discussants only asked questions during their participations. Meanwhile, 30% discussants asked question more frequently than presented their opinions during their participation in the student-student discussion session at Research Design Seminar. Even though the students frequently asked questions during their participation in the discussion, it did not mean that they were not critical. In fact, “good thinker is a good questioner” that always asks questions to understand what ever he/she heard, seen, or read (King, 1995, p.13). Here, Chin and Osborne (2008, p. 2) point out that “the process of asking questions allow them to articulate their understanding of a topic, make connections with other ideas, and also to become aware of what they do or do not know”. The asking question process activates their interpretation skill for understanding the meaning of information, analysis skill for making connection between their prior knowledge to the new information, and self- regulation skill for monitoring their own abilities in understanding new information. In this case, interpretation, analysis, and self-regulation skill are the three of six skills that a critical thinker employs in the thinking process (Facione, 1990). In other words, asking question is also one of the activities that reflect students’ critical thinking skills.

1.1 Critical Thinking Evidence

In the basic clarification category, asking question is significantly necessary to help discussants comprehend the stated information related to presenters’ research designs. Here, “discovering what has been written or stated is a prerequisite for any fair-minded critical evaluation” (Browne and Freeman, 2000, p. 308). Without clearly understanding on the explicit or implicit meaning of an argument or information, one will be hard to determine whether to state an agreement or disagreement on it (Bassham, Irwin, Nardone, & Wallace, 2011). This study notes that some writing imperfections (related to coherence of the writing) in presenters’ research design had a significant impact on the clarity of the information read by discussants. Here, the discussants often faced difficulties in understanding what the presenters tried to convey in their research designs. Hence, asking for clarification on the stated information was important to confirm the meaning of the information and to avoid misinterpretation on the information. For example, DD1 asked for clarification to confirm the presenter’s reasons that were explained incoherently in the research design. Below are the discussant’s question and the presenter’s research design background as the comparison.

DD1 : Why do you choose drama class?

[Source: audio transcription from fourth seminar]

.... Drama is an important means of stimulating creativity in problem solving. It can challenge students’ perceptions about their world and about themselves. Drama can provide students with an outlet for emotions, thoughts, and dreams that they might not otherwise have means to express. A student can, if only for a few moments, become another, explore a new role, try out and experiment with various personal choices and solutions to real problems from their own life, or problems faced by characters in literature or historical figures.

.... The students who have participated in drama activities are less likely to have difficulty speaking in public, will be more persuasive in their communications, both written and oral, will have a more positive, confident self-image. Participation in dramatic activity requires self-control and discipline that will serve the student well in all aspects of life.

.... Drama is important tool for preparing students to live and work in a world. That is why the writer chooses drama to improve students' speaking ability in expressing agreement and disagreement. [Source: presenter's (DP) research design, p. 2-3]

Meanwhile, in the in-depth clarification category, they asked question to seek for detail information and explore the complexities or imperfections in presenters' research ideas. Here, asking questions "enable [them] to confront alternative possibilities of meaning" before making a cognitive commitment only from one direction of thinking (Browne and Freeman, 2000, p. 307). The example from first seminar showed that AD2 intelligently sought all needed information related to presenter's research concept before he could accurately assess the relevance of presenter's research concept and presenter's research instrument for accomplishing presenter's research purpose.

AD2 : The second one, it's about clustering. Do you think, is it relevant with your materials? (*asking for detail*)

AP : Yes, because I think clustering is appropriate to solve the student's problem. It is relevant because clustering gets around all the ideas in written so it can make the students write the narrative text easily.

AD2 : Do you have any reason, why do you choose clustering? Any reason, why do you choose clustering?

AP : I choose clustering because it is appropriate to solve the student's problem.

AD2 : ... In your design, you are going to improve the writing skills. As far as I concern in writing skill, we are not only pay attention about ideas development, but we also pay attention about the grammar. So how can you improve grammar through clustering? (*voicing opinion*)

[Source: audio transcription from first seminar]

Overall, asking question is essentially needed by these students to build good foundation of critical thinking because without comprehending the information or having adequate information on the issue being discussed, they can easily become inaccurate in evaluating the information. However, the discussion above does not simply state that only ask question is enough to critically discuss the ideas, concepts, or issues related to presenters' research designs. Even though they did evidence their critical thinking in questioning skill, they did need to engage more in other critical thinking skills to enhance the quality of academic discussion.

While the questions reflected the discussants' critical thinking in clarifying and seeking relevant information, their opinions or judgments (in assertion category) about presenters' ideas in the research designs, showed their evaluation skill. Here, discussants' evaluations can help presenters identifying the imperfections in their research designs contents or ideas; which may not be noticed by presenters previously. At this point, Cottrell (2005) argues that people who tend to over-estimate with their own reasoning will not identify the imperfections of their reasoning until the others elaborate those imperfections to

them.

In the case of this study, voicing opinions or making arguments about presenters' research ideas were undeniable needed in examining presenters' research designs contents; as it let the presenters noticed any fault in their research designs, and helped them to re-evaluate their ideas. For example, as seen in the fourth seminar, even though DD2 presented her idea through her question, it was clear that after her question pointed out the complexity in presenter's research concept, the presenter began to notice her complicated ideas and then revised it to make it more applicable to do.

DD2: You stated there, "siswa diminta menghafal plot cerita dan dialog masing-masing dengan berlatih berkomunikasi dalam sebuah tim," and no. 9, "setiap kelompok akan menampilkan drama mereka masing-masing ke depan kelas dengan batas waktu yang telah ditetapkan guru (maksimal 10 menit)".Ok, can them? Is it possible to ask them to memorize several words there, practice in front of class? Do you think is it possible, that scripts are quite long for them to be learned?

DP : Yes, I know that my students have to memorize all the scripts, they have to work hard to memorize the script to perform and then to remember. But, I as the teacher, if my students face the difficulty in memorizing, I will give clue, may be the sentence, the clue to make them remember or they may be can bring the scripts but not to read just to see if, if they forget, they will bring their script or I will give them a clue. And if the script is too long, I will make some modification to make the script more easier to memorize.

[Source: audio transcription from fourth seminar]

1.2 Uncritical Thinking Evidence

This study found that there was a very little evidence of uncritical thinking skill (5.88%) contributed only by one discussant (AD1). This time, his questions pointed out irrelevant and insignificant issues to be discussed. His first question showed his misinterpretation on the topic being discussed (clustering technique function in writing, and cohesive writing). He thought that clustering technique could help students writing cohesively. In fact, clustering only helps students to organize their ideas before writing the paragraph. It does not help students writing cohesively by connecting sentences or ideas structurally but it helps the students writing coherently by presenting relevant ideas. Therefore, as he misinterpreted the "cohesive" definition, he asked the irrelevant question.

AD1 :from your research design paper, I can conclude that cluster technique can help the students to explore and generate the ideas before write a narrative text. So, it means that the student's ideas are still separated, and how can clustering technique helps the student to make a cohesive paragraph?

[Source: audio transcription from first seminar]

At this point, according to Sinicki (as cited in Nilson, 2010), one's misconception is commonly caused by the lack of prior knowledge about the subject matter. Therefore, one who has poor background knowledge may face difficulties in thinking critically (Cottrell, 2005).

Meanwhile, his second question indicated that he had poor ability in identifying the main point of the topic being discussed, which evidenced his

uncritical thinking skill (Bassham, Irwin, Nardone, and Wallace, 2011). His question had no contribution at all in examining the main issue at hand (improving students writing skill on narrative text through clustering). It was clear that the presenter was going to use clustering technique to help students writing narrative text; hence, it was insignificant to discuss the advantages of clustering technique for writing other types of text.

AD1 : Ok. And my second question. Your research design, based on personal narrative experience, so is it possible if you apply this technique to another type of narrative text? [Source: audio transcription from first seminar]

This poor critical thinking evidence indicated that AD1 had lack of practice in thinking critically. Here, Cottrell (2005) points out that one who rarely involves in activities that require them to engage with critical thinking skills may have no idea how to think critically.

2. Presenters' Critical Thinking Quality

This study reveals that 70.59% of presenters' contributions evidenced their critical thinking in responding discussants' questions or statements. A lot of critical thinking evidence fell in basic clarification category. Meanwhile, there was little evidence of critical thinking fell in justification category, resolution category, and in-depth clarification category.

Table 3. Numerical Summary of Presenters' Contributions Quality

Category	BC	DC	A	J	R	+	-
Total +	18 (52.94%)	1 (2.94%)	0%	3 (8.82%)	2 (5.88%)	24 (70.59%)	
Total -	3 (8.82%)	2 (5.88%)	3 (8.82%)	2 (5.88%)	0%		10 (29.41%)
TOTAL	21 (61.76%)	3 (8.82%)	3 (8.82%)	5 (14.71%)	2 (5.88%)	34 (100%)	

2.1 Critical Thinking Evidence

In basic clarification category, 52.94% of presenters' contributions showed their critical thinking skills by re-explaining the textual information clearly and elaborating the theoretical information accurately. In this category, their clarifications on the stated information were important to make the discussants understand what they tried to convey in their research designs. For instance, EP re-explained the textual information to clarify the advantages of teaching method that he used in his research.

EP : I will answer for number one, why do you think small group can influence the students' participation? When work in small group they will be more confident to tell to their friends because they have known each other. And the second, the afraid of making mistake will be solved here because working in a group, they share their ideas and their opinion to their friends. And third, if working in small group, will motivate them to express their opinion to their friends. Working in a small

group will have opportunity for the students to speak rather than in a big group if. Working in a big group the students will be just keep silent and then the students will just listen to their friends if their friends explain their ideas.

[Source: audio transcription from fifth seminar]

Meanwhile, in the in-depth clarification category, presenting further information played important role for describing the significance and the logic of their ideas to the discussants. However, there was a very little evidence of student's critical thinking (2.94%) found in this category. This time, there was only DP who evidenced her critical thinking in presenting further information that was asked by the discussant.

DD2 : if the script is too long, I will make some modifications for them to make them easier to be remember.

D P : How you make it? How to make it becomes easier?

DD2 : May be, I will give them simple words. I will help them to understand the script if they face difficult word that hard for them or maybe modify the script.

[Source: audio transcription from fourth seminar]

The students' contributions in basic clarification and in-depth clarification category above reflected their critical thinking quality toward the clarity and accuracy of the information. This is relevant with what Bassham, Irwin, Nardone, and Wallace, 2011; Facione, 1990; and Paul and Elder, 2002 have listed about the quality standards of critical thinking.

On the other hand, little evidence of students' critical thinking (8.82%) was also found in justification category. This time, students evidenced their critical thinking by providing logical support to defend their arguments. This evidenced that they could reason logically based on proper evidence and data (Bassham, Irwin, Nardone, and Wallace, 2011). For instance, BP told her personal experience when she was teaching listening, to prove her statement that the students did face difficulty during listening activity. Meanwhile, CP provided justification for the effectiveness of teaching method that he was going to use in his research by comparing the advantages and the disadvantages of other teaching methods to the purpose of his research.

BD1: You said that the writer found that the students face the big problem in term of listening. The question is what problem do you mean by big problem there? What is it? And how could you know that it is a big problem?

BP : The big problem here is because the students hard to understand what the teacher said, what the teachers asking them to do. For example when the teacher read the some key word or sentences and ask them to write them down, it is hard for them to write them correctly. And so I conclude that they are lack of vocabulary.

[Source: audio transcription from second seminar]

CDI: So you have said this on your research design that types of group activity, so you said here that there are three types of group work which are formal, informal, and cooperative. So, which one of these types of the work will you use in your research. And also why do you choose that kind of group work?

CP : Actually, the three of these kinds of group work is can used by me and then the suitable one in this research, I choose the formal collaborative types in the group because this group is established for achievement test and involve students working

together achieve certain learning goal. It means that we used this formal corporative learning group, if the teacher wants to improve the achievement of the students in the class, and also their marks. So we can see the improvement by week to another week. And then what about the informal practice in the group.

CD1 : No, no..., sorry..., I'm sorry I don't ask about it....

CP : Ok, I'll give the difference between the formal and informal. Informal is just to attract they to the subject that have been taught by the teacher, so it's not to improve their achievement but just attract their participation.

[Source: The audio transcription from third seminar]

Meanwhile, this study also found that all presenters' contributions (5.88%) in resolution category evidenced their critical thinking skills. This time, they did fair self-evaluation on their own ideas or statements by being open-minded to other counter points of view that might distract their research interest. They were also able to provide solution to overcome the complexities in their own research concepts to make their ideas more acceptable and reasonable than before. Their contributions reflected their dispositions as critical thinker by having open-mindedness and flexibilities in considering alternate points of view as well as having fair-mindedness in defending their arguments or self-assessing their own ideas or statements (Bassham, Irwin, Nardone, and Wallace, 2011; Facione, 1990; Paul and Elder, 2002). For example, even though in the DP's argument, she did not straightly revise her research concept, it was clear that she started to notice the imperfection in her research design. Here, she presented solution to address her flawed research concept. This showed that DP was fair-mindedly assessing her own ideas.

DD2: You stated there, "siswa diminta menghafal plot cerita dan dialog masing-masing dengan berlatih berkomunikasi dalam sebuah tim" and no. 9, "setiap kelompok akan menampilkan drama mereka masing-masing ke depan kelas dengan batas waktu yang telah ditetapkan guru (maksimal 10 menit)".Ok, can them? Is it possible to ask them to memorize the several words there, practice in front of class? Do you think is it possible, that scripts are quite long for them to be learned?

DP : Yes, I know that my students have to memorize all the scripts, they have to work hard to memorize the script to perform and then to remember. But, I as the teacher, if my students face the difficulty in memorizing, I will give clue, may be the sentence, the clue to make them remember or they may be can bring the scripts but not to read just to see if, if they forget, they will bring their script or I will give them a clue. And if the script is too long, I will make some modification to make the script more easier to memorize.

[Source: audio transcription from fourth seminar]

2.2 Uncritical Thinking Evidence

The findings of this study show that presenters were not always able to think critically in responding the discussants' questions or opinions during their participation in the discussion. This study notes that each presenter had contributed at least one uncritical response to the discussants. There were 29.41% of presenters' contributions that reflected their uncritical thinking skills in the all categories except in the resolution category.

Their uncritical contributions revealed that they had superficial understanding on their own research designs content. For instance, in the basic

clarification category, AP was distracted by the flawed question from discussant that made her answer the question inaccurately. By stating that clustering technique could help students in writing cohesively, AP reflected that she did not comprehend her research design content (*see the explanation on page 9*).

AD1: I can conclude that cluster technique that can help the students to explore and generate the ideas before write a narrative text. So, it means that the student's ideas are still separated, and, how can cluster technique help the students to make a cohesive paragraph?

AP : In this research, the students are guided to make cluster map in the classroom. The first thing is write behind the main idea in the middle of the paper and then write some sub ideas around the main idea. After that, the students can write another idea around the sub ideas and it should be related to the sub ideas, so the students' writing can be cohesive paragraph if they make the cluster map based on the teacher's guide. [Source: audio transcription from first seminar]

As AP had poor comprehension in her own research design concept, she was not only unable to clarify the theoretical information, but also fail to make judgment logically (assertion category).

AD2 : in your design, you are going to improve the writing skills. As far as I concern in writing skill, we are not only pay attention about ideas development, but we also pay attention about the grammar. So how can you improve grammar through clustering?

AP : Ok. In this research, the students' problem is in developing ideas of writing. that's why I choose clustering because the benefit of using clustering is to improve the students' ability in developing ideas. So if the students find difficulties in grammar, I will teach them about grammar as well, but not through clustering because clustering is the technique to develop the ideas not the grammar. [Source: audio transcription from first seminar]

Meanwhile, in the in-depth clarification category, some of presenters' uncritical thinking evidence showed that they had poor interpretation on the scholarly discourses. For example, EP failed in presenting relevant information about the indicators for assessing students' participation in speaking activity. Here, he misinterpreted the discussant's question. He had inaccurate interpretation on the "measurement" term that he defined as the tool of data collecting.

EP : What is the measurement to decide that the students participate to the speaking activities? Ok, I think it was very clear; I use the field note to measure their participation in speaking. [Source: audio transcription from fifth seminar]

The findings above indicated that these students might have poor preparations before presenting their own research designs in the Research Design Seminar class. Here, they might not have adequate reading on the books or research papers that provided meaningful information for them in writing and presenting their research designs. According to Chin and Osborne (2008, p. 22) "the combination of theoretical background (declarative knowledge) and research method (procedural knowledge) in the research papers" provide helpful guidance for students on how scientists formulated research question or developed research methods in conducting a rational research. Hence, without adequate

reading sources, it might be difficult for them to present their ideas or thoughts critically in the Research Design Seminar.

Moreover, their poor English reading skill might also affect their interpretations on the information in reading texts. In that case, they might have difficulty in understanding the meaning of several terms or discourses in academic English reading texts that made them interpreted and evaluated the information superficially or even inaccurately. Since “the way one interprets information affects the way one conceptualizes, assumes, and implies it” (Paul and Elder, 2002, p. 76); students who have poor English reading skill in interpreting the information may have lack background knowledge in explaining and defending the issues at hand. In the case of this study, students’ poor reading skill would result poor prior knowledge on their own research designs topics. As the result, they were unable to demonstrate their critical thinking skills during their participation in the discussion. In conclusion, the findings of this study indicate that presenters’ reading skill affected their critical thinking quality in presenting and defending their research designs ideas.

Besides facing barrier in interpreting the scholarly discourses and showing poor comprehension on their own research designs ideas, there was little evidence of students’ uncritical thinking skills in assertion category that revealed their poor ability in making logical statements or arguments. This time, their reasoning reflected their egocentrism, unwarranted assumptions and wishful thinking when explained their own statements (Bassham, Irwin, Nardone, and Wallace, 2011). For example, in the second seminar BP jumped to conclusion without explaining how using media in teaching listening could overcome students’ difficulties in listening unfamiliar words.

BD2 : ... your research subject is students in Sekadau...

BD2 : why don't you try to take your research subject in Pontianak . There are many student in Pontianak have a problem in learning listening So, give me a basic or mean reason, why did you take subject of the, your research?

BP : Ya. like I said before, I'm going to conduct this research to the students at SMP SG Sekadau because I found that the teaching learning process in that school almost never use any kind of media as activity for teaching English in listening. So, the students like I said before, they have the same problem, that is lack of vocabulary. So, while teaching listening I'll try to enhance students' vocabulary. This is also focuses on vocabulary development.

[Source: audio transcription from second seminar]

Meanwhile, DP who involved in the fourth seminar, argued her ideas one-sidedly as she defended her ideas only based on her interest and ignored the other facts related the issue being discussed. She ignored the fact that the other language expressions such as receiving and refusing invitation also promote students to present reasons for their decisions. It was not only “agreement and disagreement expression” that promoted students to explain their reasons.

DP : Why I choose agreement and disagreement? In eighth grade, they have to master some expressions, receive or refuse, invitation, or to give opinion and then also to agree and disagree. Why I choose this because it is can stimulate them, not only just

say “yes, I agree or disagree”, but why, the reason, and they can think more about why they agree or disagree and I think that’s why I choose agree and disagree. It can stimulate them to think and to share their thought.

[Source: audio transcription from fourth seminar]

The situations above indicated that they might also rarely practice themselves to argue ideas critically. Here, according to Cottrell (2005) lack of practice will make people poor in thinking critically including in seeking or presenting detailed information. Furthermore, Cottrell argues that people who have insufficient focus to detail would tend to over generalize in arguing their ideas. Hence, Cottrell points out that people who rarely practice their critical thinking will likely to have difficulties in thinking critically as they do not have any idea how to engage with critical thinking skills.

Conclusion

In summary, most discussants only evidenced their critical thinking in questioning skill, and few discussants evidenced most of their critical thinking in questioning skill rather than in voicing opinion skill; they did demonstrate their critical thinking skill in most of their contributions. Since this study only focused to identify discussants’ critical thinking and uncritical thinking evidence, the findings of this study cannot confirm the discussants’ motives in mostly or only asking questions than presenting opinions during their participation. However, this study notes that most discussants tended to ask questions related to textual information; which indicated that they faced difficulties in understanding what the presenters had stated in the research designs. On the one hand, the presenters’ poor writing skills in presenting clear and sufficient information might cause the discussants tended to ask for clarification about it. On the other hand, the discussants’ poor reading skill in interpreting the textual information might also force them to ask more questions.

Besides, it also should be noted that majority of the students never presented counter arguments even though there were some dissonances in presenters’ research ideas. This might be caused by their superficial understanding about the topic being discussed that limited them for discovering those dissonances; hence, they tended to agree with the presenters’ research ideas rather than stated disagreement about it. To confirm these possibilities, it is recommended for further research to investigate discussants’ barriers in presenting opinions during the discussion session. Besides, investigating discussants’ perceptions on the importance of critical thinking for participating in discussion is also recommended for further research as the study can discover the cause that may influence students’ critical thinking quality or their tendencies in only or mostly asking questions during their participation in the discussion.

On the other hand, the findings of this study also show that presenters sometimes still had problem in interpreting the scholarly discourses related to their research fields and demonstrated superficial understanding on their own research designs contents. Further research is recommended to investigate

students' strengths and weaknesses in comprehending the academic reading text, or in paraphrasing academic literature. Investigating their skills in reading and paraphrasing academic literature will provide further information on the quality of their interpretation skill; which is the basic skill that is needed by students to process the higher level of cognitive skills in critical thinking.

However, the analysis of discussants' and presenters' contributions quality in this study does not mean to imply that they were totally poor of critical thinking. They were just not well-trained to think critically, and had poor preparation before participating in the discussion session. This study shows that the most significant skill which the students needed before they could present their own thoughts logically, or assess the other's ideas critically is actually the basic cognitive skill; interpretation or comprehension. Without comprehend any issue at hand, it is difficult to make logical evaluation on it. Hence, this study suggests that the students still need more practices to develop their critical thinking and reading skills. Practicing their critical thinking and reading skills can help them to overcome their difficulties in interpreting the scholarly discourses, to improve their comprehension on their own research designs content, and to avoid their unwarranted assumptions in presenting or evaluating any idea (the other students' ideas or their own thinking). Moreover, the students also need to have a passionate drive for critical thinking standards in their reasoning as it can help them to develop the nature of critical thinker inside them (Bassham, Irwin, Nardone, and Wallace, 2011; Facione, 1990; Paul, 2005). By developing the critical thinking dispositions, they will gradually improve their thinking quality for the internal motivation that affects them to always think critically (Facione, as cited in Lai, 2011).

BIBLIOGRAPHY

- Bassham, G., Irwin, W., Nardone, H., & Wallace, J. M. (2011). *Critical thinking: a student's introduction* (4th ed.). New York: McGraw-Hill.
- Browne, M. N., & Freeman, K. (2000). Distinguishing features of critical thinking classrooms. *Teaching in Higher Education*, 5 (3), 301-309.
- Bullen, M. (1997). *A case study of participation and critical thinking in a university-level course delivered by computer conferencing*. Unpublished doctoral dissertation, University of British Columbia.
- Chin, C., & Osborne, J. (2008). Students' questions: a potential resource for teaching and learning science. *Studies in Science Education* , 44 (1), 1-39.
- Cottrell, S. (2005). *Critical thinking skills: Developing effective analysis and argument*. New York: Palgrave Macmillan.

- Facione, P. A. (1990). *Critical Thinking: A statement of expert consensus for purposes of educational assessment and instruction*. Millbrae, California: The California Academic Press.
- Gunawardena, C., Lowe, C., & Anderson, T. (1997). Analysis of global online debate and the development of an interaction analysis model for examining social construction of knowledge in computer conferencing. *Journal of Educational Computing Research*, 17 (4), 395-429.
- Kam-Fai, H. (1973). Preferred teaching method: lecture, discussion or tutorial? *STUDIUM*, IV, 153-165.
- King, A. (1995). Designing the instructional process to enhance critical thinking across the curriculum: Inquiring minds really do want to know, using questioning to teach critical thinking. *Teaching of Psychology*, 22 (1), 13-17.
- King, P. M., Wood, P. K., & Mines, R. A. (1990). Critical thinking among college and graduate students. *The Review of Higher Education winter*, 13 (2), 167-186.
- Lai, E. R. (2011). *Critical thinking: a literature review*. Pearson. Retrieved February 13, 2012, from <http://www.pearsonassessments.com/hai/images/tmrs/CriticalThinkingReviewFINAL.pdf>
- Malmir, A., & Shoorcheh, S. (2012). An investigation of the impact of teaching critical thinking on the Iranian EFL learners' speaking skill. *Journal of Language Teaching and Research*, 3 (4), 608-617.
- Nilson, L. B. (2010). *Teaching at its best: A research-based resource for college instructors* (3rd ed.). San Francisco: Jossey-Bass.
- Paul, R. & Elder, L. (2002). *Critical thinking: Tools for taking charge of your professional and personal life*. New Jersey: Financial Times Prentice Hall.
- Paul, R. & Elder, L. (2005). *A guide for educators to critical thinking standards: Standards, principles, performance, indicators, and outcomes with a critical thinking master*. Foundation for Critical Thinking. Retrieved February 1, 2012 from <http://www.criticalthinking.org>
- Rozimela, Y. (2008). Fostering students' critical thinking through question and reasoning. *Lingua Didaktika*, 2 (3), 92-103.
- Wallace, C. (2003). *Critical reading in language education*. Palgrave Macmillan.
- Williams, L., & Lahman, M. (2009). Online discussion, student engagement, and critical thinking. *APSA 2009 Toronto Meeting Paper*. Retrieved from SSRN: <http://ssrn.com/abstract=1448970>