CHAPTER II

REVIEW RELATED LITERATURE

In this chapter, the researcher explicates several theories through reviewing some literatures related to this study. This theoretical construct deals with some main areas: the definition of critical thinking, the concept map paragraph and essay, the good criteria in writing argumentative essay. Furthermore, some previous studies related to this current study are also discussed here.

A. Critical Thinking

1. Critical Thinking Definition

In university level critical thinking skills are essential abilities in using intellectual tools by which one appropriately assesses thinking. By utilizing critical thinking skills, students can use the intellectual tools that critical thinking offers the concepts and principles that enable them to analyze.

In the other hand Dewey introduced more recent effects in the critical thinking show around life. He named critical thinking "reflective thinking" and described it as "an active, persistent, and careful consideration of a belief or supposed form of knowledge in the light of the grounds which support it and the further conclusions to which it tends".

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¹ John Dewey. *How We Think*. (Lexington, Mass: D.C. Heath, 1910), 2.

Critical thinking is the intelligently self-controlled process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action.² The same line meaning described by Scriven and Richard that it based on universal intellectual values that excel subject matter divisions: clarity, accuracy, precision, consistency, relevance, sound evidence, good reasons, depth, breadth, and fairness.³Linda and Richard argued that critical thinking is the art of analyzing and evaluating thinking with a view to improving it.⁴In short, critical thinking is that mode of thinking about any subject, content, or problem in which the thinker improves the quality of his or her thinking by skillfully taking charge of the structures inherent in thinking and imposing intellectual standards upon them.

Another researcher S.P Norris in the Article of Synthesis of research on Critical Thinking stated that there are nine definitions explained the critical thinking based on many researches. Those are:⁵

- a. Firstly, critical thinking is a complex of many considerations.
- b. Secondly, Critical thinking is an educational idea;

²H. Masduqi, 2006. *Critical Thinking and Meaning*. TEFLIN Journal, Vol. 22, No 2. Retrieved: 2 July 2011. P.186

³M. Scriven,&P. Richard, (1987). A Statement for the 8th Annual International Conference on Critical Thinking and Education Reform, retrieved 13 June 2011.

⁴E. Linda. &P. Richard, *Critical Thinking: Concepts and Tools*, (The Foundation for Critical Thinking, 2006), 4th Edition. p.4

⁵S.P. Norris, 1985. Synthesis of Research on Critical Thinking. Published by Association for Supervvision and curriculum development.

- c. Thirdly, Critical thinking is not widespread. The way students in measuring ability in recognizing assumptions or evaluation do not score well. They frequently make simple judgmental errors on simple problem.
- d. Fourthly, Critical thinking is sensitive to context.
- e. Fifthly, teachers should look for the reasoning behind students' conclusion.
- Sixthly, simple errors may signal errors in thinking at a deeper level.
- g. Seventhly, having a critical spirit is as important as thinking critically.
- h. Eighthly, to think critically one must have knowledge.
- i. Ninthly, one is teachers do not know about great deal about the effects of teaching critical thinking.

2. The Basic Building Blocks of Critical Thinking

Critical thinking is self-directed, self-disciplined, self-monitored, and self-corrective thinking. It requires rigorous standards of excellence and mindful command of their use. It entails effective communication and problem solving abilities and a commitment to overcome our native egocentrism and sociocentrism.⁶

⁶E. Linda&P. Richard, Critical Thinking: Concepts and Tools, (The Foundation for Critical Thinking, 2006), 4th Edition. p.4

Linda & Richard argued that there are some elements of thought in conception the critical thinking in our brain. ⁷

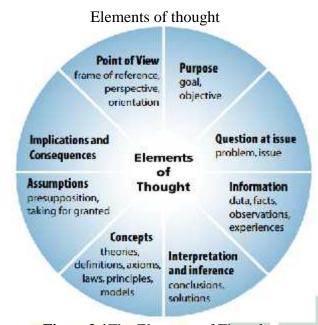


Figure 2.1 The Elements of Though

In another line argued that there are three basics to build the critical thinking. Those are:⁸

Claims : A statement, true or false, that expresses an opinion or belief.

b. Issues/question: What is raised when a claim is called into question

c. Argument : A two part structure of claims, one part of which (the premise or premises) I given as a reason for thinking the other part (the conclusion is true).

⁷Linda E. & Richard P., Critical Thinking: Concepts and Tools, (The Foundation for Critical Thinking, 2006), 4th Edition. p.13

⁸B.N. Moore & R. Parker, 2008. Critical Thinking-9th edition. Published by McGraw-Hill, an imprint of the McGraw-Hill Companies, Inc. 1221 Avenue of The Americas, New York, NY 10020.p.5-6.

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In the other hand, the same opinion stated by John and Geoff that the word that is often used for a piece of reasoning is argument. The other researcher said that arguments are using reasons to support a point of view, so that known or unknown audiences may be persuaded to agree. An argument may include disagreement, but it is more simply disagreement if it is based on reasons. 10

Another said Logicians two kind of good arguments: Deductive argument and a good inductive argument.¹¹ Focus on those arguments, it is should know by people the distinction between the two is second nature to the teachers of critical thinking, and it is easy for students and the teachers to sometimes forget that it is new to many people. In addition, within the past few pages we have already brought up several new ideas, including critical thinking, claim, argument, premise, conclusion, issue and more.

a. Deductive Arguments

A good deductive argument is said to be valid. Which means it is not possible for the premise to be true and the conclusion false.

Example 1→ **Premise**: Rio Lives in Jakarta

Conclusion: Therefore, Rio lives in Indonesia

(This is valid argument because it is not possible for Rio to live in Jakarta and not live in Indonesia)

⁹J. Butterworth and G. Thwaites, 2011. *Thinking Skills*. Published: Cambridge University Press. p.7

¹⁰S. Cottrell, 2005. *Critical Thinking Skils; Developing an effective analysis and argument*. Copyright Licensing Agency, 90 Tottenham Court Road, London W1T 4LP. Published by Palgrave Macmillan. P 52

¹¹B.N. Moore & R. Parker, 2008. Critical Thinking-9th edition..p.5-6.

Example $2 \rightarrow$ **Premise**: Rio taller that his girlfriend and his girlfriend is taller than his sister.

Conclusion: Therefore, Rio taller than her sister (This is valid argument too because it is not possible for the premise to be true and the conclusion to be false)

To put all this differently, the premises of good deductive argument, assuming they are true prove or demonstrate the conclusion.

b. Inductive Arguments

A good inductive argument does not prove or demonstrate the conclusion. They support it. It means that assuming they are true, they raise the probability that the conclusion is true.

Example 1→ **Premise** : Rio Lives in Jakarta

Conclusion: Therefore, Rio uses mosquito

repellent.

(It means Rio living in Jakarta makes it probably that he uses mosquito repellent)

Example 1 -> Premise : People who live in Butte City already spend a lot of time in the sun

Conclusion: Therefore, a tanning salon will not do well there.

(The premise of this argument assuming it is true raises the

probability that the conclusion is true, thus it supports the conclusion)

The more support the premises of an argument provide for a conclusion, the stronger the argument is said to be.

Stella argued that there are two key terms of argument in critical thinking. Firstly is contributing arguments. It means individual reasons are referred to as arguments or contributing arguments. Secondly is the overall argument. It means composed of contributing arguments, or reasons. It

presents the authors' position. The term line of reasoning is used to refer to a set of reasons, or contributing arguments, structured to support the overall argument.¹²

In the same line, Jim Wohlpart stated that the two features of critical thinking. Those are:¹³

- a. Overview of an argument:
 - 1) Consciousness of point of view
 - 2) Consciousness of intention and audience
 - 3) Statement of central problem issue
 - 4) Understanding keys ideas
- b. Internal elements of an argument
 - 1) Deduction: Consciousness of inferences and assumptions
 - 2) Induction: analysis of information and proof

When you have believed in your writing, you will sure to build up the writing using your idea of the information tough. Although the common issue that comes to you is have two answers both true and false. From the core critical thinking above can conclude that the process of critical thinking begin form our assumptions about the information. All the complete conceptualizing in our mind has becoming one circle rule.

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¹²S. Cottrell, 2005. Critical Thinking Skils; Developing an effective analysis and argument.p.38.

¹³J. Wohlpart, Critical Thinking: How to Read and Analyze Arguments. Spring 2007

Further, our thinking have virtues or traits in concepting the information or the doamin of life. That is: 14

The Virtues or Traits of Critical Thinking

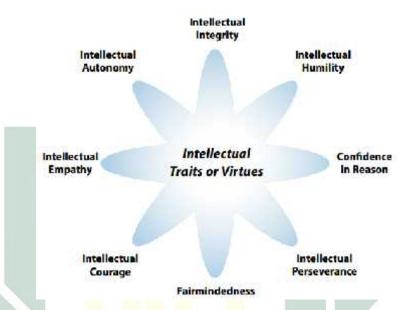


Figure 2.2The Virtues or Traits of Critical Thinking

c. The Process of Critical Thinking

Dewey stated that there dimensions of critical thinking are emotional, social, physical and cognitive. This current study focuses on cognitive process of the students' critical thinking in their writing argumentative essay. Then, these Cognitive aspects can divide into five different categories: Inference, Analysis, Evaluation, Conclusion and Induction. As a process, critical thinking involves students in recognizing and researching the

¹⁴Linda E. & Richard P., *Critical Thinking: Concepts and Tools*, (The Foundation for Critical Thinking, 2006), 4th Edition. p.20

¹⁵John Dewey. *How We Think*. (Lexington, Mass: D.C. Heath, 1910).

assumptions that undergird their thoughts and actions. ¹⁶Critical thinking is, in short, self-directed, self-disciplined, self-monitored, and self-corrective thinking. It requires rigorous standards of excellence and mindfully command of their use. It entails effective communication and problem solving abilities and a commitment to overcome our native egocentrism and sociocentrism. ¹⁷

Assumptions are the taken for granted beliefs about the world and our place within it that seem so obvious to us that they do not seem to need to be stated explicitly. Many of the assumptions depend on our thinking. When the students think critically, they start to research these assumptions for the evidence and experiences that inform them. Look at the **Table2.3** below.

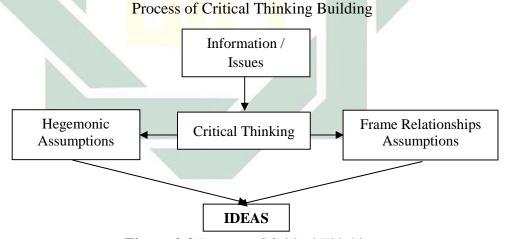


Figure 2.3 Process of Critical Thinking

¹⁶S.D. Brookfield, Developing Critical Thinkers: Challenging Adults to Explore Alternative Ways of Thinking and Acting. San Fransisco: Jossey-Bass, 1987.

¹⁷Linda E. & Richard P., *Critical Thinking: Concepts and Tools*, (The Foundation for Critical Thinking, 2006), 4th Edition. P.4

¹⁸J. Butterworth and G. Thwaites, 2011. *Thinking Skills*. p.51

Based on the **Table** above, the purpose of critical thinking tends to be to scrutinize two particular and interrelated sets of assumptions. ¹⁹

- 1) There are assumptions that frame how the students view power relationships in our lives. Critical thinking entails adult understanding that the flow of power is a permanent presence in our lives. In our personal relationships, work activities, and political involvements, power relations are omnipresent, though often submerged. Uncovering and questioning these power relations so that people might redirect the flow of power in a circular or democratic manner is important part of critical thinking.
- 2) There are hegemonic assumptions that need to be uncovered. Hegemonic assumptions are those that the students embrace eagerly because people think they are in its best interests. Yet perversely these assumptions actually work against us in the long term and serve the purpose of those who do not have our best interests in our heart. The term hegemony applies to the process whereby ideas, structures, and actions come to be seen by the majority of people as wholly natural, preordained, and working or their own good when in fact these ideas constructed and transmitted by powerful minority interests to protect the status quo that serves these interests so well.

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¹⁹A. D. Rose, and M. A. Leahy. *Assessing Adul Learning in Diverse Settings: Current Issues and Approaches*. Published by John Willey & Sons, Inc. 2002. p.48.

Critical thinkers routinely apply the intellectual standards to the elements of reasoning in order to develop intellectual traits.

THE STANDARDS Precision Clarity Accuracy Significance Relevance Completeness Must be Logicalness Fairness applied to Breadth Depth THE ELEMENTS Purposes Inferences **Ouestions** Concepts Points of view **Implications** As we learn to develop **Assumptions** Information INTELLECTUAL TRAITS Intellectual Humility Intellectual Perseverance Intellectual Autonomy Confidence in Reason Intellectual Integrity Intellectual Empathy Intellectual Courage **Fairmindedness**

The Concept of Critical Thinking

Figure 2.4The Concept of Critical Thinking

d. Assessing Critical Thinking

One of the most intense discussions about critical thinking concerns its assessment. To be sure, standardized tests are available that purport to measure students' ability to reason in critical manner. Many researchers have defined critical thinking in terms of taxonomies, including Bloom's taxonomy (1956). Choy and Cheah found that many believe Bloom's top

three tiers to be critical thinking "analysis, synthesis, and evaluation". 20 Bissell and Lemons developed a study to assess students' critical thinking skills in a biology course using Bloom's taxonomy, particularly the top four tiers: application, analysis, synthesis, and evaluation. ²¹ Bloom's Taxonomy of Critical Thinking

> Evaluation Synthesis **Analysis** Application Comprehension Knowledge

Figure 2.5 Bloom's taxonomy²²

From the **Table** of bloom taxonomy above, most of researchers believe that critical thinking identify the top three tiers as critical thinking skills. Further the explanation of bloom Taxonomy of critical thinking.²³

1. Step 1: Knowledge

In terms of critical thinking, the basic level of acquisition of knowledge requires that you be able to identify what is being said: the topic, the

²⁰S.C., Choy, & P.K Cheah, (2008). Teacher Perceptions of Critical ThinkingAmong Students and Its Influence on Higher Education. International Journal of Teaching and Learning in Higher Education, 20(2), p.186.

²¹A.N. Bissell, & P.P. Lemons, (2006). A New Method for Assessing Critical Thinking in The Classroom. Bioscience, 56, 66-72.

²² H. Coffey, (2013). Bloom's Taxonomy.

²³Bruce R. Reichenbach, An Introduction of Critical Thinking, (Mc Graw Hill, 2000), ISBN:0073660272

issue, the thesis, and the main points.exhibits previously learned material by recalling facts, terms, basic conceptsand answers. It is same line by Barbara that Knoeledgw means exhibits previously learned material by recalling facts, terms, basic concepts and answers.²⁴

2. Step 2: Comprehension

Comprehension means understanding the material read, heard or seen. It is also demonstrating understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions and stating main ideas. In comprehending, you make the new knowledge that you have acquired your own by relating it to what you already know. The better you are involved with the information, the better you will comprehend it. As always, the primary test of whether you have comprehended something is whether you can put what you have read or heard into your own words. Review some key words that help you identify when comprehension is called for. Remember that comprehending something implies that you can go beyond merely parroting the material back but instead that you can give the material your own significance.

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²⁴Barbara Fowler, 1996, *Bloom Taxonomy and Critical Thinking*, Longview Community College.Inquires to barbara.fowler@kcmetro.edu. p.1

²⁵A.E.Dreyfuss, J. Jordan, K. Rajaram, (2014) (2nd Ed.). The Work Matters: A guide for new facultyteaching at City Tech. New York City College of Technology, CUNY.p.1

3. Step 3: Application

Application requires that you know what you have read, heard, or seen, that you comprehend it, and that you carry out some task to apply what you comprehend to an actual situation. Review the some tasks that require application. It will solving the problems by applying acquired knowledge, facts, techniques and rules in a different way.²⁶

4. Step 4: Analysis

Analysis involves breaking what you read or hear into its component parts, in order to make clear how the ideas are ordered, related, or connected to other ideas. Analysis deals with both form and content. Review how critical thinkers analyze form. Review how critical thinkers analyze content.

5. Step 5: Synthesis

Synthesis involves the ability to put together the parts you analyzed with other information to create something original. Review some key words that help you identify when synthesis is called for.

6. Step 6: Evaluation

Evaluation occurs once we have understood and analyzed what is said or written and the reasons offered to support it. Then we can appraise this information in order to decide whether you can give or withhold belief,

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²⁶A.E.Dreyfuss, J. Jordan, K. Rajaram, (2014) (2nd Ed.). The Work Matters: A guide for new facultyteaching at City Tech. New York City College of Technology, CUNY.p.2

and whether or not to take a particular action. Review some key words that help you identify when synthesis is called for. Never put evaluation ahead of the other steps in critical thinking steps; otherwise, you will be guilty of a "rush to judgement." When emotion substitutes for reasons, evaluation incorrectly precedes analysis.

There are some terms within the definitions of critical thinking that do not necessarily fit into Bloom's taxonomy. One of these is creating or constructing. In their re-creation, they placed "evaluating" with "creating" as the top level, the skill that was considered to be the highest or most complex cognitive task. Overbaugh and Schultz argued that the synonyms they used for this skill were assembling, design, develop, formulate, and construct. These tasks are similar to:²⁷

- a) Judging and evaluating
- b) Creating an idea or opinion involves synthesizing information
- Judging the information that has been collected
- d) Forming an opinion based on that evidence.

However, constructing is a cognitive task that goes beyond judging or evaluating something that is already there. It involves creating something new.

D, Brookfield challenges the use of standardized assessments of critical thinking adult learning influenced by the differences of student's

²⁷Overbaugh, R.C., & Schultz, L. (2013). Bloom's Taxonomy.

critical thinking in learning. ²⁸ Stephen stated that learning to think critically is an irreducibly social process. It happens best when people enlist the help of other people to see our ideas and actions in new ways. ²⁹ In addition, if critical thinking is certainly a social process, then it follows that its assessment should also be a social process involving a multiplicity of experiences, contributions, and perceptions. These cooperative approaches to assessing critical thinking based on premised in three assumptions which it should be subject to constant critical analysis.

- a. Critical thinking can be assessed only in specific contexts. It means studying the dimension of action what the students do as well as what they say is crucial.
- b. Critical thinking can often be best assessed by one's peers, who function as critical mirrors. Not only the teachers but also other learners can provide valuable assessment of one's developing capacity to question hegemonic assumptions and imagine democratic alternatives.
- c. Assessment of critical thinking should allow learners to document, demonstrate, and justify their own engagement in critical thinking. In viewing learning from other outside, the teachers may miss entirely the critical dimensions of students' though and practice.

²⁸J. Willey, & Sons, Inc. 2002. Assessing Adult Learning. Printed in the United States of America.

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²⁹ Norris, Stephen P., Phillips, and Linda M, "Explanations of reading comprehension: schema theory and critical Thinking theory". Teachers College Record. v89 n2Win 1987, 281-306.

e. Critical Thinking Level

The critical thinking level that the researcher use is written by Critical Thinking community. They are Linda Elder with Richard Paul. They defined critical thinking as the ability and disposition to improve one's thinking by systematically subjecting it to intellectual self-assessment. On this view they argued that persons are critical thinkers, in the fullest sense of the term, only if they display this ability and disposition in all, or most, of the dimensions of their lives. They exclude from their concept of the critical thinker those who think critically in only one dimension of their lives. It caused by the quality of one's life is dependent upon high quality reasoning in all domains of one's life, not simply in one dimension. The stages are: ³⁰

a. The unreflective thinker

Defining features: largely unaware of the determining role that thinking is playing in their lives. Unreflective thinkers lack the ability to explicitly assess their thinking and improve it thereby.

Skill in Thinking: Unreflective thinkers may have developed a variety of skills in thinking without being aware of them. Prejudices and misconceptions often undermine the quality of thought of the unreflective thinker.

³⁰Linda E. & Richard P., *Critical Thinking: Concepts and Tools*, (The Foundation for Critical Thinking, 2006), 4th Edition.

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Some Implications for Instruction: in the present mode of instruction it is perfectly possible for students to graduate from high school, or even college, and still be largely unreflective thinkers. Though all students think, most students are largely unaware of how their thinking is structured or how to assess or improve it. Thus when they experience problems in thinking, they lack the skills to identify and "fix" these problems. Most teachers do not seem to be aware of how unaware most students are of their thinking. Little is being done at present to help students "discover" their thinking. This emphasis needs shifting.

b. The Challenge Thinker

Defining Features: Thinkers move to the "challenged" stage when they become initially aware of the determining role that thinking is playing in their lives, and of the fact that problems in their thinking are causing them serious and significant problems.

Principal Challenge: To become initially aware of the determining role of thinking in one's life and of basic problems that come from poor thinking.

Knowledge of Thinking: Challenged thinkers, unlike unreflective thinkers are becoming aware of thinking as such. They are becoming aware, at some level, that high quality thinking requires deliberate reflective thinking about thinking (in order to improve thinking). They recognize that their thinking is often flawed, although they are not able

to identify many of these flaws. Challenged thinkers may develop an initial awareness of thinking as involving concepts, assumptions, inferences, implications, points of view, etc., and as involving standards for the assessment of thinking: clarity, accuracy, precision, relevance, logicalness, etc., though they have only an initial grasp of these standards and what it would take to internalize them. Challenged thinkers also develop some understanding of the role of self-deception in thinking, though their understanding is limited. At this stage the thinker develops some reflective awareness of how thinking operates for good or ill.

Skill in Thinking: Most challenged thinkers have very limited skills in thinking. However like unreflective thinkers, they may have developed a variety of skills in thinking without being aware of them and these skills may (ironically) serve as barriers to development. At this stage thinkers with some implicit critical thinking abilities may more easily deceive themselves into believing that their thinking is better than it actually is, making it more difficult to recognize the problems inherent in poor thinking. To accept the challenge at this level requires that thinkers gain insight into the fact that whatever intellectual skills they have are inconsistently applied across the domains of their lives.

Relevant Intellectual Trait: The fundamental intellectual trait at this stage is intellectual humility, in order to see that problems are inherent in one's thinking.

Some Implications for Instruction: The importance of challenging our students in a supportive way to recognize both that they are thinkers and that their thinking often goes awry. We must lead class discussions about thinking. We must explicitly model thinking (e.g., thinking aloud through a problem).

c. Beginning Thinker

Defining Feature: Those who move to the beginning thinker stage are actively taking up the challenge to begin to take explicit command of their thinking across multiple domains of their lives. Thinkers at this stage recognize that they have basic problems in their thinking and make initial attempts to better understand how they can take charge of and improve it.

Principal Challenge: To begin to see the importance of developing as a thinker and to begin to seek ways to develop as a thinker and to make an intellectual commitment to that end.

Knowledge of Thinking: Beginning thinkers, unlike challenged thinkers are becoming aware not only of thinking as such, but also of the role in thinking of concepts, assumptions, inferences, implications, points of view, etc. Beginning thinkers are also at some beginning stage

of recognizing not only that there are standards for the assessment of thinking: clarity, accuracy, precision, relevance, logicalness, etc., but also that one needs to internalize them and thus begin using them deliberately in thinking. They have a beginning understanding of the role of egocentric thinking in human life.

Skill in Thinking: Beginning thinkers are able to appreciate a critique of their powers of thought. Beginning thinkers have enough skill in thinking to begin to monitor their own thoughts, though as "beginners" they are sporadic in that monitoring. They are beginning to recognize egocentric thinking in themselves and others.

Relevant Intellectual Traits: The key intellectual trait required at this stage is some degree of intellectual humility in beginning to recognize the problems inherent in thinking. In addition, thinkers must have some degree of intellectual confidence in reason, a trait which provides the impetus to take up the challenge and begin the process of active development as critical thinkers, despite limited understanding of what it means to do high quality reasoning.

Some Implications for Instruction: Once we have persuaded most of our students that much of their thinking left to itself is flawed and that they, like all of us, are capable of improving as thinkers, we must teach in such a way as to help them to see that we all need to regularly practice good thinking to become good thinkers. Here we can use

sporting analogies and analogies from other skill areas. Most students already know that you can get good in a sport only if you regularly practice.

d. Practicing Thinker

Defining Feature: Thinkers at this stage have a sense of the habits they need to develop to take charge of their thinking. They not only recognize that problems exist in their thinking, but they also recognize the need to attack these problems globally and systematically. Based on their sense of the need to practice regularly, they are actively analyzing their thinking in a number of domains. However, since practicing thinkers are only beginning to approach the improvement of their thinking in a systematic way, they still have limited insight into deeper levels of thought, and thus into deeper levels of the problems embedded in thinking.

Principal Challenge: To begin to develop awareness of the need for systematic practice in thinking.

Knowledge of Thinking: Practicing thinkers, unlike beginning thinkers are becoming knowledgeable of what it would take to systematically monitor the role in their thinking of concepts, assumptions, inferences, implications, points of view, etc. Practicing thinkers are also becoming knowledgeable of what it would take to regularly assess their thinking for clarity, accuracy, precision, relevance, logicalness, etc. Practicing

thinkers recognize the need for systematical critical thinking and deep internalization into habits. They clearly recognize the natural tendency of the human mind to engage in egocentric thinking and self-deception.

Skill in Thinking: Practicing thinkers have enough skill in thinking to critique their own plan for systematic practice, and to construct a realistic critique of their powers of thought. Furthermore, practicing thinkers have enough skill to begin to regularly monitor their own thoughts. Thus they can effectively articulate the strengths and weaknesses in their thinking. Practicing thinkers can often recognize their own egocentric thinking as well as egocentric thinking on the part of others. Furthermore practicing thinkers actively monitor their thinking to eliminate egocentric thinking, although they are often unsuccessful.

Relevant Intellectual Traits: The key intellectual trait required to move to this stage is intellectual perseverance. This characteristic provides the impetus for developing a realistic plan for systematic practice (with a view to taking greater command of one's thinking). Furthermore, thinkers at this stage have the intellectual humility required to realize that thinking in all the domains of their lives must be subject to scrutiny, as they begin to approach the improvement of their thinking in a systematic way.

Some Implications for Instruction: Teachers must teach in such a way that students come to understand the power in knowing that whenever humans reason, they have no choice but to use certain predictable structures of thought: that thinking is inevitably driven by the questions, that we seek answers to questions for some purpose, that to answer questions, we need information, that to use information we must interpret it (i.e., by making inferences), and that our inferences, in turn, are based on assumptions, and have implications, all of which involves ideas or concepts within some point of view. We must teach in such a way as to require students to regularly deal explicitly with these structures (more on these structure presently).

e. The Advanced Thinker

Defining Feature: Thinkers at this stage have now established good habits of thought which are "paying off." Based on these habits, advanced thinkers not only actively analyze their thinking in all the significant domains of their lives, but also have significant insight into problems at deeper levels of thought. While advanced thinkers are able to think well across the important dimensions of their lives, they are not yet able to think at a consistently high level across all of these dimensions. Advanced thinkers have good general command over their egocentric nature. They continually strive to be fair-minded. Of course, they sometimes lapse into egocentrism and reason in a one-sided way.

Principal Challenge: To begin to develop depth of understanding not only of the need for systematic practice in thinking, but also insight into deep levels of problems in thought: consistent recognition, for example, of egocentric and sociocentric thought in one's thinking, ability to identify areas of significant ignorance and prejudice, and ability to actually develop new fundamental habits of thought based on deep values to which one has committed oneself.

Knowledge of Thinking: Advanced thinkers are actively and successfully engaged in systematically monitoring the role in their thinking of concepts, assumptions, inferences, implications, points of view, etc., and hence have excellent knowledge of that enterprise. Advanced thinkers are also knowledgeable of what it takes to regularly assess their thinking for clarity, accuracy, precision, relevance, logicalness, etc. Advanced thinkers value the deep and systematic internalization of critical thinking into their daily habits. Advanced thinkers have keen insight into the role of egocentrism and sociocentrism in thinking, as well as the relationship between thoughts, feelings and desires.

Skill in Thinking: Advanced thinkers regularly critique their own plan for systematic practice, and improve it thereby. Practicing thinkers regularly monitor their own thoughts. They insightfully articulate the strengths and weaknesses in their thinking. They possess outstanding

knowledge of the qualities of their thinking. Advanced thinkers are consistently able to identify when their thinking is driven by their native egocentrism; and they effectively use a number of strategies to reduce the power of their egocentric thoughts.

Relevant Intellectual Traits: The key intellectual trait required at this stage is a high degree of intellectual humility in recognizing egocentric and sociocentric thought in one's life as well as areas of significant ignorance and prejudice. In addition the thinker at this level needs: a) the intellectual insight and perseverance to actually develop new fundamental habits of thought based on deep values to which one has committed oneself, b) the intellectual integrity to recognize areas of inconsistency and contradiction in one's life, c) the intellectual empathy necessary to put oneself in the place of others in order to genuinely understand them, d) the intellectual courage to face and fairly address ideas, beliefs, or viewpoints toward which one has strong negative emotions, e) the fair-mindedness necessary to approach all viewpoints without prejudice, without reference to one's own feelings or vested interests. In the advanced thinker these traits are emerging, but may not be manifested at the highest level or in the deepest dimensions of thought.

f. The Accomplished Thinker

Defining Feature: Accomplished thinkers not only have systematically taken charge of their thinking, but are also continually monitoring, revising, and re-thinking strategies for continual improvement of their thinking. They have deeply internalized the basic skills of thought, so that critical thinking is, for them, both conscious and highly intuitive.

Principal Challenge: To make the highest levels of critical thinking intuitive in every domain of one's life, to internalize highly effective critical thinking in an interdisciplinary and practical way.

Knowledge of Thinking: Accomplished thinkers are not only actively and successfully engaged in systematically monitoring the role in their thinking of concepts, assumptions, inferences, implications, points of view, etc., but are also regularly improving that practice. Accomplished thinkers have not only a high degree of knowledge of thinking, but a high degree of practical insight as well. Accomplished thinkers intuitively assess their thinking for clarity, accuracy, precision, relevance, logicalness, etc.

Skill in Thinking: Accomplished thinkers regularly, effectively, and insightfully critique their own use of thinking in their lives, and improve it thereby. Accomplished thinkers consistently monitor their own thoughts. They effectively and insightfully articulate the strengths and weaknesses inherent in their thinking. Their knowledge of the qualities

of their thinking is outstanding. Although, as humans they know they will always be fallible (because they must always battle their egocentrism, to some extent), they consistently perform effectively in every domain of their lives.

Relevant Intellectual Traits: Naturally inherent in master thinkers are all the essential intellectual characteristics, deeply integrated. Accomplished thinkers have a high degree of intellectual humility, intellectual integrity, intellectual perseverance, intellectual courage, intellectual empathy, intellectual autonomy, intellectual responsibility and fair-mindedness. Egocentric and sociocentric thought is quite uncommon in the accomplished thinker, especially with respect to matters of importance. There is a high degree of integration of basic values, beliefs, desires, emotions, and action.

Some implications for Instruction: For the foreseeable future the vast majority of our students will never become accomplished thinkers any more than most high school basketball players will develop the skills or abilities of a professional basketball player or student writers the writing skills of a published novelist. Nevertheless, it is important that they learn what it would be to become an accomplished thinker. It is important that they see it as a real possibility, if practicing skills of thinking becomes a characteristic of how they use their minds day to day.

B. Writing

a) Writing Definitions

Writing is one of language skills and productive skill that be learnt by students in school. Students will be able to express their ideas and feeling by English writing. It can be used to maintain thoughts, ideas, and speech sounds. Writing is a combination of process and product of discovering ideas, putting them on paper and working with them until they are presented in manner that is polished and comprehensible to readers.³¹ Thus, it is be stated writing is one of language skills which combine to process and productive skill that can be used preserve thought, ideas, and speech sounds.

C. Essay Writing

a) Definition of essay writing

Essay writing has different meaning of paragraph. It consists of more paragraph and more clear explanation. This kind of text is one of the student's ideas to make their writing be more logical by readers. Setiawan argued that essay writing is the expectation of the reader to write and extend a topic more extensively or complex, it must convey it into essay form, in which a kind of writing that consists of more than one paragraph.³² There are differences both of paragraph and essay writing. Look at table below.

³¹ Caroline, T. Linse, *Practical English Language Teaching: Young Learners*, (NY: McGraw Hill, 2006), p.98.

³²OtongSetiawan D., Essay Writing. Bandung: YRAMA WIDYA, 2009), 11.

The Concept of Map Paragraph and Essay

Paragraph	Essay	
Supporting sentence	Introductory Paragraph	
	1. General statement	
	2. Thesis statement	
Supporting sentence	Body paragraph	
	Topic sentence	
	- Supporting sentence	
	- Concluding sentence	
Supporting sentence	Topic sentence	
	- Supporting sentence	
	- Concluding sentence	
Supporting sentence	Topic sentence	
	- Supporting sentence	
	 Concluding sentence 	
Concluding sentence	Concluding paragraph	
	- Restatement of the main points,	
	or	
	- Summary,	
	- Final comment.	

Table 2.6Concept map paragraph and essay

Shortly according to concept map above explains that in writing essay needs the authors' extensive knowledge, thought, idea and opinion to make a good essay that has longer content and paragraph.

In the other hand, Gerrot and Wignell found many kinds of genres (text type). They are: Those are spoof, recount, report, analytic exposition, narrative, description, hortatory exposition, explanation, reviews, discussion, procedure, news item. ³³

Another researcher said that there are three kind of writing such letter writing, essay writing and creative writing. Then Alabi stated clear in her

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³³ L. Gerrot and P. Wignell, *Making Sense of Functional Grammar*, (Sidney: AntepodeanEducational Enterprises, 1995).

book that in English language, there are four types. Those are narrative, descriptive, expository and argumentative essays.³⁴ This study only concerns of argumentative essay, in which college use. Further, only argumentative writing focus of students logical thinking which makes them think critically in their writing by expressing their idea, feeling, and though.

D. Argumentative essay

a) Definitions of argumentative essay

Argumentative essay is other types of essay writing and it is concerned with the reasoning ability of the writer to present an issue logically with an overriding view.³⁵ In this kind of writing, the authors are not only gives information but also present an argument with the PROS (supporting ideas) and CONS (opposing ideas) of an argumentative issue.³⁶ The argumentative essay is also called a genre of writing that requires the student to investigate a topic; collect, generate, and evaluate evidence; and establish a position on the topic in a concise manner.³⁷ According to the meanings above, it is stated that argumentative essay is an essay that requires the writer or the author to convey their thinking in deep understanding and extensive knowledge by considering the evidence or supporting ideas to

³⁴V.A.Alabi-Babatunde. *The Use of English in Higher Education* (Nigeria, Ilorin University Press, 1998), 172.

³⁵V.A.Alabi-Babatunde. *The Use of English in Higher Education*. 175.

³⁶OyaOzagac, *Argumentative Essay*, (www.buowl.boun.edu.tr, acessed on September 2004)

³⁷Jack Baker-Allen Brizee, Elizabeth Angeli. "Argumentative Essay" (https://owl.english.purdue.edu. Accessed on October 3rd 2013)

make the reader believe about the writers' argument. Therefore, in producing a good argumentative essay the author must have extensive knowledge, good ideas, deep thought and opinion about what they want to write.

b) The Criteria A Good Essay Argumentation

Recently, The Educational Testing Service revamped the infamous Scholastic Aptitude Test (SAT), which many universities use when determining whether to admit an applicant. This change shows the importance the educators place on the ability to write this type of essay. That is because writing an argumentative essay is doing nothing other than thinking critically and leaving a paper trail for others to follow. Occasionally the teachers who have retired the students' essay because they could not bear to read another students' essay. As a result, the students offer their two moments' substance here in hope of continuing to see familiar faces.

Generally, essay should have four components.³⁸ Those are a statement of the issue, a statement of one's position on that issue, arguments that support one's position and rebuttals of arguments that support contrary position. According Chris Endy there are three specific qualities in writing good argumentation in essay. Those are Precision in argument and use of terms, grounding in evidence, clarity and concision in prose.³⁹

³⁸B.N. Moore & R. Parker, 2008. Critical Thinking-9th edition..p.87.

³⁹C. Endy, 2011. *How to Write an Argumentative Essay*. The Center: JFK Library Palmer Wing, Room 2097. retrieved: http://www.calstatela.edu/centers/write_cn/

c) The Generic Structure of Argumentative essay

The students should master the generic structure of writing argumentative essay before they are writing it. The structure of argumentative essay follows some particular stages, the beginning, middle, and the last part of the text. Each text has own generic structure. There are three possible organization patterns.

The Concept Map Organization Pattern of Argumentative Essay

Pattern 1:	Pattern 2:
Thesis statement:	Thesis statement:
PRO idea 1	CON(s) + Refutation(s)
PRO idea 2	PRO idea 1
CONS(s) + Refutation(s)	PRO idea 2
Conclusion	Conclusion

Pattern 3:

Thesis statement:

CON idea 1 → Refutation
CON idea 2 → Refutation
CON idea 3 → Refutation
Conclusion

Figure 2.7 Concept Map Organization Pattern of Argumentative Essay

Note: PROS is supporting ideas and CONS is opposing ideas

1. Previous Studies

This section discus about the previous study related to the researcher's topic "The Students' Critical Thinking in Writing argumentative essay" and the researcher will explain what the differences between study and the previous study.

The first study by RirinKhoridah(2014) entitled "Efektifitas Model Pembelajaran Critical Thinking dalamMeningkatkanPemahamanSiswapadaBidangStudi PAI SMP Unggulan Al FalahSiwalanpanjiBuduranSidoarjo". Her research analyzed the implementation of critical thinking method in learning, the strategies that used to improve undersatdning, and the effectiveness critical thinking method in improving students' understanding.

The second study by NiswatulHasanah(2012) entitled "EfektifitasPenerapan Model PembelajaranBerbasis Deep Dialogue/Critical Thinking (DD/CT) TerhadapPrestasiBelajarSiswaKelas VIII B pada Mata Pelajaran PAI di SMP Negeri 2 TanggulanginKabupatenSidoarjo". She analyzed the implementation of Deep Dialogue/ crtical thinking method in learning. The purpose is improving students' achievement using the method. It proved that this study use new method in the class that did not use before.

The third study is written by Istiharoh (2015) entitled "The Students' Ability to Think Critically on Critical Reading Class At English Teacher Education Department Of Faculty Of Education And Teacher Training Of

State Islamic University SunanAmpel Surabaya 2015". A thesis is in English Education Department of Faculty of Education and Teacher Training. She is the student from SunanAmpel State Islamic University Surabaya in 2015. The result of the study is the students' ability in their critical thinking developed by the activity which created by the writer. Shortly, it is meant the writer assumed the students in the reading class have less critical thinking ability before. So that case, this writer tried to make the students engaged to think critically in reading class.

This study concerned on how the students' critical thinking level in their writing of argumentative essay and their ability when writes the argumentative essay using their own ideas or their own knowledge. The case study is in the fourth semester where the argumentative essay tough by the teacher. This study is on descriptive qualitative method to observe the factual case in reality. For technical collecting data the researcher used instrument to get the data they are questionnaire, and documentation that gave to 40students as the sample from 87 students as population of fourth semester students of essay class that toke from class A until C randomly.