

CHAPTER II

LITERATURE REVIEW

This chapter give background information related literature. The researcher is going to describe some theories. The discussion consist of : (1) Critical thinking, (2) Reading Comprehension, (3) PISA (Programme of international student of assessment), (4) Previous Study

2.1 Critical Thinking

Everyday we faced much of uncertain information. Student need to control their own minds for understanding the deepest value in order to take action that contribute for their self and other (Paul & Elder, 2007). This research was conducted to check learners skill in their skill of critical thinking. It is important to know that the term of “skill” can be used in a various meaning as a importance, in some case “skill” is used to indicate that the ability of someone in answer the question (Bailin, Case, Coombs, & Daniels, 2010). The student ability that researcher want to know is critical thinking. There are various definitions of critical thinking, but basically it relates with the way someone in deciding what to do or to believe by focusing someone opinion on it (Norris & Ennis, 1989). (Ennis R. H., 1962) also define that critical thinking is how to assess of statement correctly. (Mertes, 1991) added critical thinking is process that used for define or assess information with appropriate action. Not only we should know about explanation of critical thinking but we must also know the goal of critical thinking. According (Maiorana, 1992) the goal of critical thinking is to get understanding, evaluate viewpoints, and solve problems. So in their personal lives, student can solve problems to make effective decision and student have to think critically.

The puposes of assess critical thinking according (Ennis R. H., 1993) is diagnosing the levels of student critical thinking, give feedback of ability the student critical thinking skill, give motivation students to improve critical thinking

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skill, giving information to teachers about the achievement of their work to teach students to think critically, doing study about critical thinking instructional questions and issues, providing help in deciding whether a student should enter an educational program and providing information for holding schools accountable for the critical thinking skill of their students.

There characteristics of critical thinking according (Wade, 1995), Critical thinking involves 1) asking questions, 2) defining a problem, 3) examining evidence, 4) analyzing assumptions and biases, 5) avoiding emotional reasoning, 6) avoiding oversimplification, 7) considering other interpretations and 8) tolerating ambiguity.

Then, some of expert define the component of critical thinking such as according Ennis, component of critical thinking skills as FRISCO consist of Focus (identify the focus or main concern), Reason (identify and assess the reasons reception), Inference (judge the inference quality, analyze the reasons to be acceptable), Situation (pay tight attention on the situation), Clarity (make sure that the language is clear) and Overview (step back and look full scale) (Nilson, Fetherston, & McMurray, 2014). It use for make sure for “reaching a decision about what to believe or do” (Ennis R. , 1991). The other aspects of critical thinking based on Facione, six aspects of critical thinking skills is interpretation, analysis, evaluation, inference, explanation, and self-regulation (Facione, 1990) and the definitions of component sub-skill critical thinking by (Facione, 1990) :

- (1) Interpretation : To comprehend and utter the meaning
- (2) Analysis : To identify relationship between opinion, problem, idea, and view
- (3) Evaluation : To assess something that can trusted of opinion
- (4) Inference : To recognized and safe elements that needed to get reasonable conclusions; to make hypotheses from statements or opinions.
- (5) Explanation : To state the results of someone reasoning and to present someone idea in the shape of strong arguments.
- (6) Self- regulation : Self-consciously to control someone cognitive activities especially using skills in analysis and evaluation based on questioning, confirming, validating, or correcting either someone reasoning or results.

The study of (Basri, Purwanto, As'ari, & Sisworo, 2019) researchers develop critical thinking problem based on the sub skills proposed by Facione because it was considered more suitable for measuring students' critical thinking skills in the mathematics course, but there is still limited using thus concept for critical thinking in reading problem.

2.2 Reading Comprehension

Reading is the capable of people to get meaning from written form and interpret the information clearly (Grabe, William; Stoller, Fredricka L, 2019). Reading become something that involve in each aspect at our daily life. In modern era we read all the time in around of us and we use it in many more (Grabe, 2009). In our daily life we can find basic form of reading such as newspaper, magazine, advertisement, message and etc. We read when we receive message, we read when we watch TV, we read when search information in internet and many more activity involve with reading.

When we start reading something, actually we have purpose why we are reading. The goal of reading based on (Grabe, William; Stoller, Fredricka L, 2019) classified be seven purposes : 1) Reading to search simple information 2) Reading to skim quickly , 3) Reading to learn from texts, 4) Reading to integrate information, 5) Reading to write (for writing), 6) Reading to critique texts, and 7) Reading for general comprehension.

Reading involves an interative process which is reader can produce meaning actively through of a set mental process. The process involves construct the meaning between text and readers experience (Shihab, 2011). Its not possible if we are reading without thinking (Shihab, 2011) and Critical thinking allows readers to monitor their comprehension as they read (Goertel, 2018). Goertel also state to think critically about a reading text, reader must know how to take a critical stance, it means they are able to question about the text and involve their own opinion as they construct meaning (Goertel, 2018)

One of language skill that must develop in Indonesian school is reading comprehension because understanding reading become something important and

needed for student because the success of student mainly depend on their ability to read (Ardhian, Ummah, Anafiah, & Rachmadtullah, 2020). The ability to represent message from text happen from comprehension of reader (Perfetti, Landi, & Oakhill, 2005). Reader capable to understand and master the text. For understand of the reading content well, it is necessary to have ability to think critically. So with reading, student expected can get various information, including content of text and understand meaning of reading (Ardhian, Ummah, Anafiah, & Rachmadtullah, 2020). For understanding text, knowledge about word choice that is less appropriate can influent reader because if reader not clear the word it will affect in definition of the reading (Child, Cirino, Fletcher, Willcutt, & Fuchs, 2019). We can conclude that the definition of reading comprehension is a skill to extract meaning or learn something from written form (Snow, 2002). Other definition of reading comprehension is activity that involve get and build the meaning in which organizing memory become important process (García-Madruga, et al., 2013) Based on several definion of reading comprehension we can say that reading comprehension is activity on reading to understand content of reading text in explicitly and implicitly from reading text.

Reading comprehension became a skill in reading that important for student and can not be negotiable (Oakhill, Cain, & Nesi, 2016). (Ardhian, Ummah, Anafiah, & Rachmadtullah, 2020) added that skill in reading comprehension as a interaction process between readers and texts in reading activity & the activity concern on skill and understanding the content of text that they read. (Khamkhong, 2018) added to interpret a text, reader must be able to comprehend and for criticize the text, reader be able to interpret it first.

There are 3 level on reading comprehension : literal comprehension, inferential comprehension and evaluative comprehension (Basaraba, Yovanoff, Alonzo, & Tindal, 2013). More specifically, in literal comprehension tasks readers need to simply get explicit information in passage (Carnine, Silbert, Kame'enui, & Tarver, 2010). Next level is inferential comprehension, this level need reader for understand content explicitly stated in the passage but are important for passage understanding, such as the connection between two events in a narrative or

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understanding a character's reason for a particular action (Applegate, Quinn, & Applegate, 2002). The last level is Evaluative comprehension tasks readers need to analyze and critically interpret the text based on their own knowledge and experiences (Basaraba, Yovanoff, Alonzo, & Tindal, 2013)

The critical skill that needed for student to be success in school is reading comprehension (Watson, Gable, Gear, & Hughes, 2012). (Snow, 2002) added that to comprehend text, reader must have wide range of capacities and abilities. It include cognitive capacities such as attention, memory, inferencing, visualization ability and critical analytic ability. Be great in class, students are need to read widely for knowledge and information from textbooks, research articles & other sources and also think critically about what they have read (Khamkhong, 2018)

2.3 PISA (Programme of International Student Assessment)

PISA (Programme for International Students Assessment) is program that design for student start from 15 years old. PISA is collaborative product between OECD and the governments of both OECD countries and it is partner countries/economies (OECD, 2019).The focusing on young people who have skill and knowledge that important for participant in real life modern era (OECD, 2018).

The assessment not only to makesure the student can increase their knowledge but to know how well student can apply knowledge in real life (OECD, 2019). The assessment held in every 3 years start from 2000 so in 2018 is seventh cycle. The stress is on mastering processes, understanding concepts and function in every situations and assessment area (OECD, 2010) The assessment focuses 3 on the subject matter on school of science, mathematics and reading. The PISA 2018 reading test adopted and adaptive approach, wherein students were assigned units based on their performance in previous units and reading structure developed by the reading expert group (OECD, 2018). Reading in PISA's definition is the ability to identify and understand the role that reading plays in the world, to make reasonable judgments and involve with reading that use for make ends meet as a constructive, concerned and reflective people (OECD, 2003). Reading is not only as ability that student get in childhood during

early school, reading seen as a set of knowledge, skill and strategy that someone use to interact with someone else or community (OECD, 2018). The point of PISA is reading to learn than learning to read and students are assessed on higher order thinking skills (Brozo, Shiel, & Topping, 2008). Reading skills, especially the ability to interpret, integrate, reflect and evaluate, require critical thinking skills (Khamkhong, 2018). The aim of PISA also to examine learning strategies and problem solving competencies in different topics (OECD, 2010). The types of reading tasks that students are asked to perform include (1) Retrieving information by locating information on text for forming wide understanding, (2) Developing an interpretation by constructing meaning and draw conclusion based on information from text, (3) Reflecting on the content and structure of text connected with their experience, knowledge and evaluate idea critically (Brozo, Shiel, & Topping, 2008).

PISA was launched in 2000 and this program held every three years. In PISA 2018, reading was the major domain of assessment, as it was in 2000 and 2009 (OECD, 2019). So in this study researcher conduct PISA 2018. The 2018 framework defines four dimensions of texts: source (single, multiple); organisational and navigational structure (static, dynamic); format (continuous, non-continuous, mixed); and type (description, narration, exposition, argumentation, instruction, interaction, transaction). There are 3 aspects text in PISA 2018 : 1)Locating Information (accessing and retrieve information of text, and search for and select closely text), 2)Understanding (acquiring a delegation of the literal meaning of text and constructing an integrated representation of text), 3)Evaluating and Reflecting (assessing its quality and credibility, and reflecting on content and form) (OECD, 2019). (Khamkhong, 2018) also conduct his study using PISA on Thai EFL learners for develop English L2 Critical Reading and Thinking Skills

2.4 Previous study

Review several expert have conducted studies related critical thinking skill and comprehension reading problem such as (Ardhian, Ummah, Anafiah, & Rachmadtullah, 2020) show that critical thinking can improve reading comprehension in different reading technique, (Idol, 1987) show that a mapping Investigating Critical Thinking in Solving Reading Problem, Gadis Dinda Finissha 2021

strategy of critical thinking can improve reading comprehension, (Khamkhong, 2018) show that PRF-based reading practices were effective in improving the students' reading and critical thinking skills.

All the theory is describe critical thinking and reading comprehension in different way. (Ardhian, Ummah, Anafiah, & Rachmadtullah, 2020) describe the right reading technique for student that have low and high skill in critical thinking on reading comprehension skill. This study was applied in two classes and at the same level in IV grade. One group through the reading skills of directional reading thinking activities is used as an experimental group , and one group is used as a control group through reading skills of preview, questioning, reading, reflection, recitation and repetition. The result show the technique of reading the Directed Reading Thinking Activity can be used in groups of students who have high critical thinking skills. The further research we can apply on the higher level such as on student junior high school, senior high school or university student with the same technique.

(Idol, 1987) on his research describe a mapping strategy of critical thinking can improve reading comprehension. The subjects were six high school students whose teachers identified them as having difficulty with reading comprehension, but they have enough word recognized skill. The critical mind map used in this study met these 12 criteria in several ways. The map contains (a) the important events, points, or steps which lead to the main idea/lesson, (b) the main idea or lesson itself, (c) the other viewpoints and opinions of the reader, (d) the reader's conclusion upon reading the passage, and (e) any relevancy the reader sees between what was read in the passage and contemporary situations. The result show all subjects improved in daily comprehension of lessons and they can improved comprehension of passages from a different social studies text indicating ability to generalize to similar content. Four students also showed improved generalization to reading of a different content area. The further research we can apply on the same age or same gender who has difficulty with reading comprehension.

(Khamkhong, 2018) describe that PRF-based reading practices effective in improving the students' reading and critical thinking skills. In this study, researcher using PISA reading literacy assessment framework (PRF). The PRF-based reading practices were designed to train students to achieve literal, interpretative, and critical comprehensions through different sets of questions. The subject is 36 EFL learners from a university in Northeastern Thailand and all of them were Thai (L1) native speakers & learning English as a second/foreign language (L2). The result show that the designed lessons can help improve students' English critical reading proficiency and may be used as a teaching model for improving EFL learners' critical reading and thinking skills. The PRF based reading practices provides learners with various levels of reading and thinking, they can be adapted or used by EFL teachers in an EFL reading classroom to improve the students' reading comprehension and critical thinking skills. But in this study researcher not mention year PISA test, in further research we can conduct the newest PISA test because every year the test changes in many aspects.

Based on previous study above, all research in English subject and the goals is for improve critical thinking in reading comprehension but in different way through technique, strategy and kind of assessment. In this study, researcher will analyse student critical thinking in reading comprehension using PISA, researcher want to know how student analyze reading text with critical thinking.

Review of previous study related with critical thinking also conducted in different subject, such as analyzing critical thinking of mathematic by (Basri, Purwanto, As'ari, & Sisworo, 2019), the efficiency critical thinking in math by (Su, Ricci, & Mnatsakanian, 2016), the effect of cooperative learning supported by reflective thinking activities on student critical thinking skill by (Erdogan, 2019).

(Basri, Purwanto, As'ari, & Sisworo, 2019) this research aim to (1) discribing how student solving mathematic problem using critical thinking (2) identify the students' critical thinking components by (Facione, 1990). The data retrieve from test and interview. The research results showed that the evaluation, Investigating Critical Thinking in Solving Reading Problem, Gadis Dinda Finissha 2021

analysis, and self-regulation sub-skills became the lowest critical thinking sub-skills mastered by the students compared to other critical thinking sub-skills.

(Su, Ricci, & Mnatsakanian, 2016) on their article non research based, indicates the necessity of applying critical thinking and provides an example of how critical thinking; The creativity and flexibility of finding such avenues will help students better understand these concepts. The conclusion is when instructors teach critical thinking skills, students will be able to find the necessary information needed, evaluate the merits and consequences of the information and solve problems. Students who has skill of critical thinking can determine what information is important and what is irrelevant or not useful.

(Erdogan, 2019) describe the aim of this research to look at the impact of cooperative studying supporte via reflective questioning and the subject is sevent grade student in mathematic course. Total of participant is 70 student and researcher using Cornell Critical Thinking Test level X for collection data. In the study, critical thinking skills can be said to develop in a positive way as a result of self-evaluation. The finding on this research show that cooperative mastering supported by reflective thinking activities have a high quality effect on students questioning abilities.

Based on preview study in mathematic subject above it prove that study on critical thinking not just in English subject but also in other subject for assess student ability in number of critical thinking. So on this research, researcher will research on student critical thinking in English subject.