CHAPTER II

LITERATURE REVIEW

To support the understanding of the problem formulated in Chapter I, some theories related to metacognitive, metacognitive awareness in reading comprehension, metacognitive awareness in reading strategy, the teaching metacognition in episodes, and the previous related studies were reviewed. This theoretical review is synthesized to the outline of theoretical framework.

2.1. Metacognitive

John Flavel historically was the first to coin the term metacognition in the late 1979. Metacognition means "cognition about cognitive phenomena," or in other words "thinking about thinking" (Flavell, 1979, p. 906). Several researchers conducted their studies to illustrate how metacognitive have influenced the English language learning and teaching.

Anderson (2002, p. 2) discussed earlier that metacognition relates with the learners' ability who are aware about "what they know" and "what they do not know". Oxford (2003, p.12) also stated that metacognition is learners' preferences for their own learning styles and needs in order to manage the learning processes. Moreover, Griffths (2004, p. 117) noted that metacognitive makes students are having control over on their learning. In line with this idea, as described by Oxford (1990) cited in Álvarez (2010, p. 71), metacognitive implies beyond than the cognitive since the learners are able to manage they own learning.

Metacognition consists of two components: cognitive knowledge and cognitive regulation. As explained by several researchers, (Flavell, 1979; Cross & Paris, 1988; Paris & Winograd, 1990; Schraw & Moshman, 1995; Schraw et al., 2006; Whitebread et al., 2009) cited in Lai (2011, p. 5), metacognitive has been developed into the frameworks that synthesized in the typology of metacognitive. Lai (2011, p.6) further explained in her study that cognitive knowledge happens when the learners have the knowledge about oneself cognitive when and why to use strategies that influence individual performance. Furthermore, she explained

that cognitive regulation relates with the awareness of learners' cognition in planning, monitoring and evaluating the process and strategies that the they use.

The typology of metacognitive components has been categorized into the frameworks by the researchers. Lai (2011, p.7) reviewed that several researchers have been used the concept of declarative and procedural knowledge to differentiate cognitive knowledge types (Cross & Paris, 1988; Schraw & Moshman, 1995; Kuhn, 2000; Schraw et al., 2006). Cross and Paris (1988) discussed earlier about declarative cognitive is the reading awareness factor that affect the one's reading ability. Paris and Winograd (1990) has proposed self-appraisal as the other term of declarative knowledge. Self-appraisal can be seen as the process to examine personal knowledge in the form of self-questioning. In line with this idea, Kuhn & Dean (2004) named the declarative knowledge into epistemological understanding. It relates with the students' understanding in general knowledge. Schraw et al. (2006) noted that declarative knowledge as the learners' ability to know about themselves in order to gain the knowledge and to know about the factors to influence their performance. In addition, researchers have reviewed the procedural knowledge as the part of cognitive knowledge. Flavel (1979) mentioned earlier about strategy knowledge as it relates with the learners' ability to use the strategies in their learning. This idea is developed into the term of the procedural knowledge as the learners' awareness about their cognition and learners' ability to manage their own strategies (Cross & Paris, 1988; Kuhn & Dean, 2004; Schraw et al, 2006). Schraw et al (2006) suggests conditional cognitive knowledge as the knowledge from the learners to know why and when to use the strategies in their learning.

Lai (2011, p. 7) also reviewed the cognitive regulation as the other metacognitive components. As discussed by (Cross & Paris, 1988; Paris & Winograd, 1990; Schraw & Moshman, 1995; Schraw et al., 2006; Whitebread et al., 2009) cited in Lai (2011, p. 8) cognitive regulation relates with the learners' awareness in maintaining the learning strategies used. The researchers also pointed out that cognitive regulation comprises of activities of planning, monitoring or regulating, and evaluating.

Planning can be perceived as the learners' ability to identify and select the proper strategies in their learning processes. Monitoring or regulating can be seen as the learners' awareness towards the process of completing the task. The evaluation can be defined as the process of assessing ad revising the task completion (Cross & Paris, 1988; Paris & Winograd, 1990; Schraw & Moshman, 1995; Schraw et al., 2006; Whitebread et al., 2009) cited in Lai (2011, p.8)

To the further discussion, Chamot & O'Malley (1994, p. 24) strengthened the point about the language learning strategies. Learning strategies is defined as a thought and action that facilitate students' learning. The language and learning strategies, according to Chamot & O'Malley (1994 p. 24), comprise three major categories: metacognitive, cognitive and social/affective strategies. Metacognitive can be seen as the awareness from the learners in the learning process to plan, monitor and evaluate the strategies in completing the task demand.

Chamot & O'Malley (1994 p. 24) illustrates the implementation of metacognitive knowledge on how to plan to proceed with a learning task, monitor students' performance on the task, find the solutions to problems encountered, and evaluate their own learning upon the task completion. The first stages is planning comprises advance organization, organizational planning, selective attention, self-management. The planning in metacognitive language learning strategies is the beginning activities in previewing the main ideas and concepts of a text; planning how to accomplish the learning task; finding to key words, phrases, ideas; and arranging the conditions that help one learn. The second stage is monitoring includes of monitoring comprehension (receptive skill) and monitoring production (productive skill). As mentioned earlier, monitoring relates maintaining the learning processes. Chamot & O'Malley (1994 p. 24) discussed that monitoring comprehension is about the students' ability to check their comprehension during listening or reading and monitoring production is about checking students' written or oral production while it is taking place. The last stage is evaluating which relates with the self-assessment. Chamot & O'Malley (1994 p. 24) explained that self-assessment is about the one's knowledge on reflect on what they have learned.

2.2. Metacognitive Awareness in Reading Comprehension

Several researchers highlight the link between metacognitive awareness and reading comprehension, Anderson (2000 p. 2) discussed that the students who are metacognitively aware to use certain strategies when they have learning problems; that is they have ability to discover the strategies in order to solve problem. In addition, Mokhtari and Reichard (2002, p. 249) mentioned that reading comprehension emphasize the metacognitive awareness as significant role. Since the learner's awareness on reading comprehension can be perceived as the knowledge of readers' cognition in controlling, monitoring and regulating the text comprehension.

Brown (2004, p. 306) strengthened the point about the strategies that language learners need to do to become the skilled readers. Brown (2004, p. 307) also noted that reading comprehension can be achieved through the micro and macro reading skills. As stated by Brown, in micro-skills, readers are expected to have skills in identifying the smaller units of language for instance graphemes, morpheme, orthographic, grammatical patterns and linguistic signals. Furthermore, the readers are required to recognize the relationship between the morpheme to semantic and the syntactic rules in order to understand the larger meaning behind the text. In relation to the micro-skills, the readers are seems to be directed to employ the knowledge and comprehension level of bloom's taxonomy. Since the micro-skills emphasize on recognizing activity in comprehending the text. On the other hand, Brown (2007, p. 307) noted that readers need to recognize the rhetorical forms in terms of revealing the purpose of the text. It can be seen that the readers are required to use their discourse knowledge to infer the context For this reason, the readers can distinguish the implied or literal meaning to interpret the communicative function of the text. This can be achieved through developing both the scanning and skimming strategies. In Addition, macro-skills reading tend to promote the comprehension, analysis and synthesis learning omains of Bloom's taxonomy.

Those principles can be perceived to ensure the readers that they have strategies to accommodate their reading comprehension. The use of micro and

macro reading skills seems to be the strategic for language learners incomprehending the text. The learners' awareness about the process of thinking in reading and the use of appropriate strategies in comprehending the text can be simply defined as the metacognitive awareness (Karbalaei, 2010. p. 167).

2.3. Metacognitive Awareness in Reading Strategy

Mokhtari and Reichard (2002, p. 251) designed the validation of self-report instrument, the Metacognitive Awareness of Reading Strategies Inventory (MARSI). Mokhtari and Reichard (2002, p. 250) noted that the research about metacognition and reading comprehension has been explored enormously. The implication is the study in determining students' awareness of their reading strategies during reading is leading the researchers to develop self-report in examining the student's awareness in reading strategies.

Jacobs and Paris (1987, p. 267) developed the Index of Reading Awareness to measure three aspect metacognitive awareness of third through fifth-grade students such as: evaluation, planning, and regulation. Schmitt (1990, p. 455) designed a Metacomprehension Strategy Index (MSI) to measure middle and upper elementary students' awareness of strategic reading processes. This measurement is developed to determine the strategies used before, during and after reading narrative selection test. The MSI is developed to measure students' awareness of categories of metacomprehension behaviors that correlate within six broad categories: (a) predicting and verifying, (b) previewing, (c) purpose setting, (d) self-questioning, (e) drawing from background knowledge and (f) summarizing and applying fix-up strategies. Mokhtari and Reichard (2002, p. 250) discussed that the MSI has limitation for use with research since the students are made to choose among several multiple choice rather than choosing all that strategies in the certain scale. Therefore, it seems to lead students to choose the correct metacognitive answer.

Miholic (1994) cited in Mokhtari and Reichard (2002, p. 250) developed a 10-item multiple-choice inventory aimed at encouraging adult students'

metacognitive awareness of reading strategies. The inventory is intended for the students from junior high through college. The limitation of this inventory has no scoring rubric and reliability or validity data presented. Pereira-Laird and Deane (1997) set a self-report measure called Reading Strategy Use (RSU) to assess the perceptions of adolescent students' use of cognitive and metacognitive strategies when reading narrative and expository texts.

The Metacognitive Awareness of Reading Strategy Inventory seems to complete the self-report instruments which has been proposed by previous researchers. MARSI is a form of self-report questionnaire that is used to measure adult students 'awareness about the use of reading strategies while reading academic or school-related materials. Mokhtari and Reichard (2002, p. 252) mentioned that there are three major categories in metacognitive awareness of reading strategies: Global Reading Strategies, Problem-Solving Strategies, and Support Reading Strategies. The first categories is global reading strategies represented as the generalized reading strategies in the beginning such as deciding the intention of reading and the reading act in analyzing the text. The second is problem-solving strategies proposed to be the strategies for solving the problems encountered during reading academic text. The last categories is support reading strategies which involves practical strategies that support reading processes such as taking the related materials, making a note while reading

Karbalaei (2010, p.171) in his study about the comparison of the metacognitive reading strategies used by EFL and ESL readers, has explained the characteristics of three categories in metacognitive awareness of reading strategies. Karbalaei (2010, p.171) stated the characteristic of the global reading strategies such as activating prior knowledge, making predictions, previewing text, and analyzing text structure and context clues to aid comprehension. The problem-solving strategies consist of adjusting reading speed, rereading, reading aloud, reflecting, mental visualizing, and using contextual clues to deduce the meaning of unknown words. The support reading strategies include underlining, note taking, paraphrasing, self- questioning, and group discussion

These categories seem to be the combination of the metacognitive learning strategies in classroom and the reading skills in comprehending the text. Therefore, MARSI can be used to measure the adult students' metacognitive awareness in applying the strategy used in their reading process.

2.4. Teaching Metacognition in Episodes

The Department of Education and Skills (DfES, 2004, p. 9) suggested the teacher to develop an effective lesson through the sequencing of learning episodes with a beginning (teacher input), a middle (main activity for the students) and then the next activities before end up with the closing session (reviewing the lesson). In line with this idea, Scrivener (2005, p. 111) noted that having plan to arrange certain activities in the classroom is important in order to reflect the learning processes in it. Scrivener (2005, p. 112) then proposed that learning sequencing is divided into three broad sections: input, learning and use. Harmer (2007, p. 156) discussed that generally the *study activities* (another term of learning sequencing) tend to follow the PPP in sequencing the lesson. Harmer (2007, p. 158) mentioned several ways to choose appropriate study activities in classroom such as following planning principles, assessing an activity designed for use in class, and evaluating a study activity after use in class. Harmer (2007, p. 159) also pointed out the language study activities in class such as introducing new language, discovery activities, and remembering. Richards & Lockhart (2007, p. 113) described that learning sequencing is a pattern of teacher's ability to manage the each process in the classroom activities. Richards & Lockhart (2007, p. 114) suggested the structuring lesson into four dimensions: *opening* (how a lesson begins), *sequencing* (how a lesson is divided into a segments and how the segments relate to each other), *pacing* (how a sense of movement is achieved within a lesson), and *closure* (how a lesson is brought to an end).

As described by the researchers, the intention of teachers use learning sequencing seems to help them meet the learning objective effectively. The teacher tends to divide the teachings in order to place the learning activities appropriately as stated in the learning objective. The researcher seems to share the same ideas, that learning sequencing is divided into three main categorization:

opening, main lesson and closing. However, practically there was researcher has divided the learning sequencing into the specific categorization.

In relation to the discussion, The Department of Education and Skills (DfES, 2004, p. 9) named episodes for lesson sequencing in teaching processes. Episodes describe the activities that have distinct purpose and outcome. In general, DfES (2004, p.10) divided the episodes into five sections such as starter activitiy, introduction, new learning or introduction task, development, plenaries.

DfES (2004, p.14) also noted that selecting the teaching models is important to determine the breaking lessons into the teaching episodes. The teaching model that the teacher used influences the content episode. Regarding to the topic discussion, teaching metacognitive becomes the topic concerned in this section. DfES (2004, p. 31) discussed that teaching metacognitive model requires the teacher to be able to guide the students to identify their own learning strategies, monitoring the learning processes until evaluating the students' progress towards the task or activities completion.

DfES divide the five elements in lesson that use metacognitive teaching models. The first is *concrete preparation* when teacher explains the objective and learning outcomes of the lesson. The second is *action* happens when the teacher delivers the task and activities to be discussed by students. Third is *metacognition* used when teacher asks strategic question which enables students outline their thinking process. The fourth is *bridging* when the teacher invites the students to reflect on what they have learned. The last is *mediation* when the teacher ensures that students understand and engage with the learning.

DfES (2004, p. 32) also proposed the elements of teaching for metacognition are applied in the episodes of the lesson. Starter is when the students are asked to reflect on their prior learning and to identify the components of a topic discussion—teacher asks the question to check students' understanding and uses students' responses to assess the knowledge that they already have. Episode 2 the teacher is outlining the aim of the topic discussion. Episode 3 the teacher is using and interrogating a model—teacher ensures that the students keep on the right track. Episode 4 is making the model more efficient—teacher asks

strategic question to enable students think about what they have experienced. Episode 5: plenary – reviewing the model—teacher asks the student to reflecting on their learning process.

2.5. Previous Related Studies

As noted by several researchers the metacognitive awareness in reading has been explored from time to time, Jacob and Paris (1987, p. 254) employed the studies in Michigan to measure the children's' knowledge on metacognition about reading and to study the effects of classroom instruction on reading awareness. The study found that a classroom-based program of metacognitive instruction can improve children's awareness and understanding of reading strategies. Muniz (1994, p. 83) conducted the study about the bilingual Spanish dominant students in the experimental study were taught to use metacognitive reading strategies while reading. The study revealed that there was significant improvement in the types and frequency of metacognitive strategies that the children were using during their reading. In addition, Houtveen and Grift (2007, p. 173) conducted experimental study for Year 6 in Dutch elementary schools to find out the effect of metacognitive strategy instruction and instruction time on reading comprehension. The study result found that the students in the experimental group made greater progress in metacognitive knowledge than their contemporaries in the control group.

Martinez (2008, p. 166) employed research aimed at exploring the metacognitive awareness and perceived use of reading strategies of English for Specific Purposes Spanish college students while reading academic materials. By using MARSI the study revealed that there is a moderate to high overall use of reading strategies among Spanish ESP students when reading their academic materials. The result also found that students show higher reported use for problem-solving and global reading strategies. Moreover, the female students report significantly higher frequency of strategy use and tend to use support reading strategies more than male students. Furthermore, Keshavarz and Assar (2009, p. 86) in their research examined the differences reading comprehension ability metacognitive awareness of reading strategies used among high, mid and

low ambiguity tolerance groups of Engineering Iranian students. The results showed that there are significant differences between high and low ambiguity tolerance students. However the study were found there is no significant differences between the middle group and the two other groups. The data was examined by using the Nelson test of proficiency and a reading comprehension test and also filled out two questionnaires: the Metacognitive Awareness of Reading Strategies Inventory, and the Tolerance of Ambiguity Scale. High ambiguity tolerance students scored higher on reading comprehension test. The result displayed the higher level of metacognitive awareness of reading strategies and showed higher perceived use of global and problem-solving metacognitive reading strategies. However, there is no significant differences were found between middle group and the other two groups in these variables. Furthermore, the result showed that there is no significant difference was found in the use of supportive strategies among these three groups.

Karbalaei (2010, p. 175) employed MARSI to investigate the significant differences between EFL and ESL readers in metacognitive reading strategies when the undergraduate students reading academic texts in English. The study result indicated that the subjects in both groups reported a similar pattern of strategy awareness while reading academic texts although the two student groups had been schooled in significantly different socio-cultural environments. Indians students reported more awareness to use the global support and total metacognitive reading strategies. Ditzel (2010, p. 45) conducted the study to explore the impact of metacognitive reading strategies on the ability of five college students in developmental courses to self-regulate while reading. The study has shown that metacognitive reading strategy can significantly promote the reading improvement. Javadi et al. (2010, p. 250) investigated the Iran medical science students the relationship between metacognitive awareness of reading strategies and students' academic status. The result from MARSI revealed that the complexity cognitive and metacognitive strategies of advanced students were used more rather than the lower level students. Furthermore, there was also found that there was relationship between the use of metacognitive awareness and students'

achievement. The study also revealed that there is no relation between metacognitive awareness and demographic variables such as age, gender and living.

Alhaqbani & Riazi (2012, p.248) conducted study in the context of L2 Arabic university students which mostly come from Africa and Asia. The study found that the students perceived problem-solving strategies more than the other strategies. In addition, the result showed that the African tends to use global reading strategies compared to the Asian. The metacognitive awareness and reading strategy use by Korean university students in Korea was investigated by Nam and Page (2014, p. 195). The study uncovered that the relationship between strategy use and reading proficiency was linear and problem-solving strategies were the Korean students' most preferred strategies. Misa (2014, p. 304) has done his research to identify the implementation of metacognitive strategy to improve EFL of students' reading comprehension of the English Department at University of Timor in an analytical exposition text. The result also revealed that using metacognitive strategy could employ the significant improvement of the students' reading comprehension skills of analytical exposition texts.

2.6. Theoretical Frameworks

This study aimed at identifying the metacognitive reading strategy types and levels employed by students in comprehending text in eleventh graders of SMA Negeri 3 Tambun Selatan. This study can be perceived as the development of the previous studies that mainly focused on the result of the implementation of metacognitive reading strategies. Otherwise, this study is focused on portraying identifying the implementation of metacognitive reading strategies during the learning processes. The reading strategy used by students is measured by adapting Mokhtari and Reichard (2002, p. 249) self-report instrument, Metacognitive Awareness Reading Strategy Inventory. MARSI can be perceived as the tool to portray the awareness of reading strategy used in comprehending the academic text that employed by students. MARSI is adapted in this study because of this instrument was designed to portray the strategy types and levels used by adult students. Thus, since the participants of this study is eleventh graders, it seems to

be suitable to conduct this research by using MARSI. The interpretation of MARSI is strengthened by the students' interaction and behaviour in learning activities, which shows the implementation of metacognitive reading strategies and then will be confirmed by the teacher's interview.