CHAPTER II
LITERATURE REVIEW

2.1 Metacognitive Awareness

Metacognitive is one type of high-order thinking. Analysing the source of idea is essential to separating metacognitive thinking from other types of thinking. Knowing about internal representation, how a description functions, and how one feels about the representation are all parts of metacognitive thinking, which is a mental representation rather than something that appears out of nowhere. Metacognitive knowledge and metacognitive regulation are the two fundamental parts of metacognition (Gok, 2014). Metacognitive knowledge involves understanding what one knows, recognizing the limits of that knowledge, and being aware of strategies to enhance learning. It encompasses the awareness of cognitive processes and the ability to reflect on one's thinking. Metacognitive regulation, on the other hand, involves the active control and monitoring of cognitive processes during problem-solving or learning tasks. Individuals with strong metacognitive regulation skills can adjust their strategies, set goals, and evaluate their progress, leading to more effective learning outcomes. Together, metacognitive knowledge and metacognitive regulation play a pivotal role in fostering a deeper understanding of one's own thinking processes and optimizing cognitive performance.

2.1.1 Metacognitive Aspect

Teacher can enhance students' metacognitive skills by providing guidance and explaining to them how to reflect on the specific task that has been completed. The teacher also needs to have education (Thomas, 2002:6). The criteria outlined by Thomas are components of Flavell's metacognitive knowledge and regulation, providing a structured approach for teacher to improve their students' metacognitive skills during the learning process.

Table 2.1. Criteria for Enhancing Students' Metacognitive Skill

No	Aspects	Example
1.	Metacognitive reflection; shows the state of the teacher's effort consciously guiding students to think about how they learn	teacher ask students how they learn, how they complete tasks, what difficulties students encounter when learning. The teacher also asked the students to try a way or technique of learning something.
2.	interaction between students and students	students discuss with the teacher how they learn, how

		they think when learning, different techniques when learning and how to improve learning techniques in learning.
3.	interaction between students and teacher	students discuss with the teacher how they learn, how they think when learning, different techniques when learning and how to improve learning techniques in learning.
4.	student opinion	students can tell the teacher when they don't understand, ask the teacher to do a particular activity
5.	giving full confidence to students	students help teacher plan what they need to learn, determine what activities to do, and when the time is needed to do the activities.
6.	teacher motivate students to try to improve the way they learn	giving new learning methods, and motivating them to discuss how they learn
7.	emotional urge	in the classroom the teacher guides the student fairly, appreciates the effort of the student, respects the student's ideas, respects the individual differences of students, then the teacher and the student trust each other.

2.2 Problem Based Approach

PBA is a learning method that allows students to be actively involved in solving real world problems with a systematic, collaborative approach and integrated with theoretical concepts (Barrows, 1996). In other words, students not only acquire theoretical knowledge independently, but they also learn how to use it in real-world situations. In addition, PBA increases students' metacognitive awareness. Students must use metacognitive skills such as monitoring understanding, strategizing, reflection, and self-assessment when solving complex problems. For example, students must monitor and evaluate their progress in understanding problems and creating problem-solving strategies. Therefore, PBA theory not only helps students understand concepts in real-world contexts, but also helps them become more metacognitively aware as they use their metacognitive skills in collaborative and active learning process.

PBA aims to improve students cognitive, metacognitive and social skills. It also encourages them to understand learning concepts better and use them in real-world situations (Savery & Duffy, 1995). In the context of developing students' metacognition in learning English, PBA can make a significant contribution. By solving English problems related to real-world situations, students will be encouraged to activate their metacognitive skills, such as monitoring learning progress, assessing the learning strategies used, and reflecting on learning experiences. For example, in a PBA project where students are asked to solve communication problems in English in a work environment, students will use their metacognitive awareness to evaluate communication skills, identify difficulties encountered, and plan remedial steps. Thus, PBA does not only improve understanding of English concepts, but also deepens students' understanding of how they learn and use effective strategies in real situations. This helps in the development of students' metacognitive awareness, which is an important aspect in effective and sustainable English learning.

2.2.1 Step by Step Learning Model Problem Based Approach

Problem-based learning involves five basic processes, according to Trianto (2011:71). The first step involves the teacher introducing the student to a problem situation, and the last step involves the presentation and analysis of the students' work. The following steps serve as the foundation for these five steps:

1) First phase: Student orientation on the problem

   Teacher explains the purpose of learning, explaining the logistics required, submitting phenomena or demonstrations or stories to raise problems, motivating students to engage in problem solving.

2) Second stage: Organizing students to study.

   Teacher help students to define and organize learning tasks related to the problem.

3) Third Stage: Guiding individual and group research.

   Teacher encourage students to gather appropriate information, conduct experiments, to obtain explanation and problem solving.

4) Fourth Stage: Developing and presenting the work.

   Teacher help students in planning and preparing suitable works such as reports, videos, and models as well as helping them to share tasks with their friends.

5) Fifth Stage: Analyze and evaluate the problem-solving process.

   Teacher help students to undertake reflection or evaluation of their research and the processes they use.

2.3 Metacognitive Problem Based Approach

Metacognitive Problem Based Approach (PBA) is a learning method that combines metacognitive principles and a problem-based approach. This approach emphasizes the importance of students' metacognitive awareness in the learning process as well as the application of problem solving strategies to improve understanding and critical thinking skills. (Flavell, 1979) defines metacognitive as the knowledge and regulation of one's metacognitive processes. Combining metacognitive with PBA in English learning means focusing on developing students' metacognitive awareness and regulation as they learn through the problems they are given. This includes:

1. Planning learning

   Teacher teach students to plan how they will approach a given task or problem. This includes setting goals, selecting appropriate strategies, and managing time effectively.
2. Monitoring the learning process

   During the learning process, students are encouraged to monitor their own understanding and recognize when they do not understand something. The teacher can provide guidance on how to check understanding and make adjustments if necessary.
3. Reflection after learning

   After completing a task or problem students are invited to reflect on what they have learned and how they can improve their learning methods in the future.

By combining the principles of metacognition and the Problem-Based Approach, teacher can help students develop critical thinking skills, self-awareness, and the ability to regulate their own learning processes. This approach not only improves students' academic understanding but also prepares them to become independent and adaptive lifelong learners.

2.4 Previous Study

There have been several previous studies in increasing students' metacognitive awareness. Putri (2019) found that students' self-reflection can increase metacognitive awareness in speaking learning. Her research highlights the importance of developing students' cognitive abilities, understanding of learning difficulties, and strategies for overcoming them. The main focus of the research was to determine the extent to which student self-reflection, as a form of self-assessment, can facilitate students' metacognitive awareness in speaking classes. This research was conducted in two cycles with 35 first semester students majoring in Dentistry in Yogyakarta, Indonesia. Data collection methods include the "Metacognitive Awareness Inventory" (MAI) questionnaire to measure students'

metacognitive awareness before and after the action, as well as reflections written by participants. It was found that students' reflection had increased their metacognitive awareness, suggesting that encouraging students to reflect on their learning could help improve learning outcomes. The focus of this conclusion is on the importance of self-reflection in facilitating students' metacognitive awareness.

Afzali (2019), in his study by the title *The effects of problem-based learning on language learners' metacognition*, found that the use of Problem-Based Learning (PBL) was effective in increasing students' metacognitive awareness in language learning. This research shows that the implementation of PBL in the English language learning context in Iran provides positive results in increasing students' metacognitive awareness, which has not previously been widely researched in the language learning context. The research results were supported by statistical analysis using factorial ANOVA which showed an increase in students' metacognitive awareness after attending 15 PBL sessions. The pedagogical implications of this research discuss the importance of PBL in strengthening students' learning processes and suggest the use of PBL strategies in teaching English.

From the two studies above, differences can be found where the research used classroom action research, a dynamic and iterative method, to specifically improve students' metacognitive awareness in English language learning. Integrating a problem based approach to systematically develop and apply metacognitive strategies. This comprehensive approach aims to address and solve specific learning chellenges faced by grade XI students at MA Islamic Center, making a unique contribution to the field by combining these elements to improve overall metacognitive awareness in English learning.