

## **CHAPTER 2**

### **LITERATURE REVIEW**

This chapter presents a brief explanation of some theories that support the study. The theories are related to longhand note-taking as a traditional note-taking, the importance of note-taking, the Academic Listening and Speaking course, and teacher's role in teaching learning process.

#### **2.1 Longhand Note-Taking as a Traditional Note-Taking**

College students might write the important ideas they got from the lectures in their class that need to be remembered as their new knowledge. This activity is called note-taking. According to Piolat et al. (2005), note-taking is a complex activity where the note-taker has to understand and choose the important information to be recorded and write them down. Taking notes is the process of properly preparing for texts or lectures by first developing a system, followed by efficiently gathering information, and then organizing it cohesively (Pauk & Owens, 2013). Another definition of note-taking by Boch and Piolat (2005) is an activity which shortens essential information for later use and writing in symbols quickly. In other words, they called it as creating external memory. In line with Boch and Piolat (2005), Dewitt (2007) defined note-taking as an external memory which contains a brief record of information to be remembered. In sum, note-taking is an activity of recording important information received so that it can be recalled at a later time.

Longhand note-taking refers to the activity of writing notes by hand, using pen and paper. Longhand note-taking is the opposite of digital note-taking that uses electronic devices and software to take notes. While digital note-taking has become increasingly popular in recent years, many people, including teachers and students, still find value in the traditional method of writing by hand. The main reason is because the process of writing by hand engages deeper cognitive processing, leading to better encoding of the material into long-term memory (Mueller & Oppenheimer, 2014).

Some research suggests longhand note taking may still be superior due to several aspects, one example is relating with the motoric skills. Writing notes by hand helps in better understanding the information. The physical act of writing in longhand note-taking enhances fine motor skills and coordination. In the case of children who are in the early stages of learning to write, handwriting develops connections between visual and motor networks in the brain (James, 2017; Vinci-Booher et al., 2016). Children's view of letters is different after handwriting practice than typing practice (James, 2017; James & Engelhardt, 2012; Vinci-Booher et al., 2016). This suggests that handwriting and letter perception share neural substrates (James & Gauthier, 2006). However, most of the research participants involved children so the results may not generalize to adult note-taking. Beside improving handwriting skills, longhand note-taking allows students for better personalization and creativity. Adding personal touch like using various colors, drawing, symbols, and decorations (e.g. stickers, decorative tapes) to highlight and emphasize the important key points can make the notes appear beautifully and memorable.

It is worth to remember that the decision to choose between longhand note-taking and digital note-taking depends on personal preferences, task context, and individual learning styles. Some people focus only on one method only. Others find that both methods work best for them. They believe that the use of digital tools is beneficial for organization and longhand notes to increase engagement during lectures or discussion sessions (Siegel, 2023). Students take notes in various ways to organize the information. Based on the researcher's observation, longhand note-taking styles and strategies frequently used by EFL students in a state university in Tasikmalaya are mind mapping strategy, Cornell strategy, outlining strategy, and sentence strategy.

## **2.2 The Importance of Note-Taking**

Note-taking is a crucial skill for students to keep the presented material in their mind. Then the notes produced are used to review the material. Unfortunately, a certain number of students disregard the importance of taking notes and do not

often write notes unless the teacher told them to do so. Boyle (2011) said that many students struggle with taking effective notes during lectures, they often recording only about 25% of the material presented. This type of students wasted their opportunity to streamline their learning time in classroom and to take advantage of note-taking for enhancing their academic achievement.

In fact, organized information is easier to remember than unorganized information. The information received is arranged based on several criteria such as titles, subtitles, key points, topics, and so on. Moreover, organized notes avoid missing or lagging information. In the case of note taking during lectures, most students rely on note-taking to support the process of remembering and recalling original thoughts, as they cannot immediately explore all ideas during lectures, as the material is generally presented quickly. Finally, note-taking enhances students' academic performance, as research shows it positively affects understanding, preparation for exams, and overall learning outcomes (Shell et al., 2021; Morehead et al., 2019; Salame & Thompson, 2020).

Research on note-taking has long highlighted its positive impact on student performance, particularly during lectures. According to Mosleh and Baba (2013), note-taking help in recording information and documenting events for later reference, such as when students write down lecture content to preserve their memory. It also facilitates effective information processing and comprehension by strengthening the connection between new information and existing knowledge, known as the generation effect (Foos et al., 1994).

Previous studies discussed two ways in which note-taking influences student learning: encoding and external storage (DiVesta & Gray, 1971; Kiewra, 1989). Encoding and storage functions are also important benchmarks in assessing the quality of note-taking. The encoding function suggest that note-taking can improve students' retention of the subject matter. Encoding process performed during the learning process or during note-taking process. Three types activities in the encoding process include receiving material, prior knowledge/experience, and learning process with prior experience/knowledge (Peper & Mayer, 1978). In addition, note-taking is a generative activity (summarizing, paraphrasing, concept

mapping) that encourages students to connect the material presented with prior knowledge (Peper & Mayer, 1986). Regarding the encoding function, there are two key aspects of note-taking are particularly important: (1) the method students choose for taking notes and (2) whether they try to organize their notes as they take the notes (Morehead et al., 2019). For note-taking methods, students may write by hand in a notebook (longhand note-taking) or use an electronic device like a tablet or digital notepad to type their notes.

Thus, the processing information processing tasks for encoding and reviewing notes leads to a positive impact on learning. Moreover, note-taking is an activity that requires a high level of concentration. While taking notes, the note-taker's attention should be more focussed on accessing, sorting, and encoding information, rather than simply listening to a speaker or reading text material (Piolat et al., 2004). In that way, the note-taker focus on the important point to better understand the information, and help them to summarize the ideas and concepts. In fact, writing notes encourages thinking, and note-taking can help real-time thinking processes such as maths problem solving.

Regarding the storage function, notes are useful as a support for students for effective exam preparation. The storage function suggests that revisiting notes recorded in written form will facilitate retention (Kiewra, 1989). Concerning the storage function of note-taking, research by Morehead et al. (2019) tried to ask students whether they check their notes and believe that checking their notes is important for learning. The results show that while most students review their notes by rereading, others self-examine their notes. In sum, the main use of note taking is as an effective learning tool that allows students to gather information from lectures, presentations, seminars, discussions, and other sources of information in class. In other words, note-taking assists on recording information for later review.

### **2.3 Academic Listening and Speaking Course**

Academic Listening and Speaking course is one of compulsory courses in the English Education Department. This course typically focuses on developing students' proficiency in listening and speaking skills with an emphasis on academic

contexts. Academic Listening and Speaking course aims to prepare students to communicate effectively in an academic settings, such as lectures, seminars, presentations, and discussion.

“Academic Listening and Speaking course provide international students with an extensive intercultural listening experience through a variety of spoken texts multimodally presented in the academic contexts” (Hidayati, 2023). In this course, students will be given the listening tasks to several spoken English texts from various academic contexts including lectures, webinars/seminars, talk shows, podcasts, and conferences. Apart from that, students are given the opportunity to interpret the information they get, convey ideas, and to create their own webinars. Besides, this course also builds students' speaking and writing skills.

Course objectives of the Academic Listening and Speaking course are as follows:

- a. Students are able to identify and respond to spoken English texts from various academic contexts (lectures, webinars, talk show, podcast, and conferences).
- b. Students are able to interpret the results of lectures and speeches delivered by speakers from different cultural background in a logical, systematic, and responsible manner through the notes taken.
- c. Students are able to convey the ideas at academic meetings (lectures, webinars, talk show, podcast, and conferences) in an acceptable manner.
- d. Students are able to design and present an academic text based on scientific references at an international conference.
- e. Students are able to handle questions from webinar participants politely.
- f. Students are able to build confidence to do public speaking in an academic context.
- g. Students are able to raise awareness and respect against the differences of English varieties.
- h. Students are able to enrich knowledge, construct positive attitude, and sharpen interpersonal skills to communicate with people from other cultures.

ALS course focuses on providing as much input as possible through listening. There are several components of listening that are frequently encountered in this course. One of the common classroom activities is understanding academic lectures, including identifying the main idea, supporting details, and organisational structure. This is called lecture comprehension. Lecture comprehension is the first component of listening. The second component is note-taking. Note-taking is becoming write familiar learning tool among students to help students capture important information during academic presentations, discussions, or lecture comprehension. Therefore, it is important for a teacher to teach effective note-taking techniques. The last component is listening practice. This course provides exposure to various academic materials, such as lectures, interviews, podcasts, seminars, and student presentations to improve students' listening comprehension. These listening inputs help students to enrich their knowledge and awareness of various spoken English in academic contexts.

The output of ALS course is the ability to communicate well in the form of speaking. The speaking components encountered in this course are academic discussion and presentation skills. Academic discussion engages students in academic discussion structures, debates, and collaborative activities to promote effective verbal communication. Meanwhile, presentation teaches students how to plan, organise, and deliver academic presentations with a focus on clarity, coherence and engagement. Both components help students get used to public speaking.

In addition to listening and speaking skills, the ALS course also helps develop students' language proficiency. In the aspect of grammar and syntax, this course trains students to discuss grammatical and syntactical structures related to academic discourse so that they can convey their ideas accurately and fluently. In the aspect of pronunciation and intonation, this course improves students' oral communication and clarity in academic speech. In addition, the ALS course also builds students' academic vocabulary.

## 2.4 Teacher's Role in Teaching Learning Process

EFL teacher stands for English as a Foreign Language Teacher. EFL teachers are educators who specialize in teaching English to non-native speakers in countries where English is not a primary language, one of them is Indonesia. The goal is to help students develop their English language skills for various purposes, such as communication, academic study, or professional opportunities. The context of this research is related to the teaching strategies used by an EFL teacher (who also has a role as an instructor) in their classroom, not only to streamline classroom learning, but also to teach the how to learn. Kiewra (2002) said that a good strategy instructor should know two things: which strategies are effective and how to teach the students by incorporating strategy instruction into the teaching content. In his article, Kiewra (2002) also discusses strategies that includes four crucial learning components: Note-taking, Organizing, Relating, and Monitoring (NORM). According to him, the strategy can be focused on these components so that students can achieve more and ultimately learn how to learn. The following are the detailed explanations about NORM and examples of how teachers might incorporate strategy instruction into teaching content.

### a. Note-taking

Students should record more notes and teacher should take steps to help students increase their lecture note-taking by providing detailed notes, skeletal notes, lecture cues, audio or videotaped copies of the lecture for re-presentation, or providing opportunities to revise missed lecture points at the conclusion of lectures.

### b. Organizing

After note-taking, students organize their notes in outline form to ease them to see how information is organized into topics, categories, and associated details. For example, using matrix notes.

### c. Relating

Students must connect the material to be learned. Mayer (1984, 1996) mentioned two types of connection: internal connections and external connections. According to Kiewra (2002), in his article, matrices help in building internal connections. Matrices localise related information, making it faster and easier to

build connections between ideas. While some strategy to build external connections include: mental model (Mayer, 1989, 1996) because it connects new information to familiar models of analogy, and self-explanation.

d. Monitoring

The best strategy to improve self-monitoring is self-testing. Teacher can facilitate self-testing by providing students with practice tests as study devices.

From the explanation above, it can be concluded that a teacher's perspective refers to their point of view, beliefs, attitudes, and approaches to something. In this case, various aspects of teaching and education. This perspective is shaped by a combination of the teacher's educational background, experiences, values, and philosophy of education.

## **2.5 Study of the Relevant Research**

Many studies have been carried out on EFL student's note-taking strategies and the implementation of note-taking as study aids in the classroom. The implementation of technology in the classroom, especially since to covid-19 pandemic often affects the development of learning tools and students' study aids. Updated research has been carried out by Morehead et.al (2019) about note-taking habits of 21st century college students and its implications for student learning, memory and achievement. This study aimed to update the literature on students' general note-taking habits and investigate the impact of newer technology advances on note-taking. In this study, students reported that they still take notes in class and they tend to prioritize flexibility in note-taking such as (a) using notebooks or laptops depending on course demands and (b) they often decide not to take notes in online courses. Thus, students who take notes may not always make good decisions about how and when to take notes.

Note-taking techniques used in the classroom today are quite diverse. Shell et.al (2021) compared longhand, keyboard, and stylus note-taking to academic performance in college class. The study organised mini-lectures and gave students the opportunity to take notes using longhand, keyboard, and stylus techniques. Then, the students took a quiz after the lecture. The results showed that students



performed better using their preferred note-taking technique. Another result is that longhand and stylus note-taking have similar advantages compared to keyboard, although students' preferences may affect the effectiveness of their note-taking.

Some studies compare computer or laptop note-taking and longhand note-taking more specifically. Mueller and Oppenheimer (2014) conducted three experiments to investigate whether taking notes on laptop versus writing on a paper affects academic performance, and to explore students' cognitive processing through verbatim note-taking. This study found that students who took notes on a laptop performed worse on conceptual questions than students who took notes longhand. Laptop note-takers tend to take notes verbatim rather than processing the information and paraphrase in their own words. This is detrimental to learning. Morehand et.al (2019) conducted a study replication of Mueller and Oppenheimer (2014) and extended their work by including groups of students who took notes using e-Writers and who did not take notes.

Qualitative research by Sukma (2020) regarding EFL students' note-taking strategies in listening tasks aims at finding out what strategies of note-taking that Indonesian university students use in their academic listening tasks and how it improves their listening skills. From document analysis and interview with the participants, the results are; 1) Students use different note-taking strategies in completing the listening tasks (IELTS listening test), and 2) The strategies they used helped them comprehend the listening tasks. Similar research by Roumaissa and Selma (2022) also have the same results with the previous one. The only difference is the note-taking strategies used by the students. There are four strategies in Roumaissa and Selma's (2022); sentence strategy, mind mapping, Cornell, and outlining strategy. Meanwhile, there are three strategies in Sukma (2020); listing, outlining, and sentence strategies.

While digital note-taking has become increasingly popular in recent years, many people, including teachers and students, still find value in the traditional method of writing by hand. It seems that previous research focuses on researching student's note-taking strategies and comparing some of note-taking methods from student perception. Although there has been a lot of research related to the use of

various note-taking methods in the classroom, there has not been sufficient research that focuses on EFL teachers' perception, especially its implementation in Academic Listening and Speaking course. In addition, research related to the implementation of longhand note-taking is quite old and rare because researchers focus on the development of note-taking methods. Therefore, this research attempts to use single case study research to investigate EFL teacher's perception including experiences and reasons for using longhand note-taking in this digital era.