

CHAPTER 2

LITERATURE REVIEW

In this section, researchers provide theories related to the research question. This section is divided into two parts, which are the theoretical framework and the study of the relevant research. The first section talks about theories that are relevant to this study, while in the second section, the researcher provides or arranges some studies that are done in previous studies on the same subject.

2.1 Theoretical Framework

2.1.1 Learning Management System (LMS)

At this time, technological developments are very advanced, and almost all aspects of life have felt the impact of these developments, from health, construction, and transportation to learning. Technology helps teachers create innovative teaching strategies by providing interesting activities helping the students improve their competence (Fatimah & Santiana, 2017). With the help of technology, the Learning Management System (LMS) can be well implemented.

LMS is software created by technology to make it easy for a teacher to organize activities and communicate with other students without limiting space and time. LMS is a system application that assists in administration as an e-learning content platform (Gutman, 2017). Also, it enables students to learn various information without space-time limitations. They learn various materials, such as words or text, from visual, audio, and other multimedia (Kean, Embi, & Yunus, 2012). Fathema et al. (2015) stated that Learning Management Systems provide resources and features that aid in teaching and learning, such as course management tools, online community chats and forums, documentation (reading content, homework, and tasks, etc.), PowerPoint presentations, video clip posting, testing, and course assessments.

They also argue that LMSs focus on providing virtual means of improved and convenient interaction between students and teachers through the use of computer and Internet technology in learning processes and the provision of numerous teaching and learning resources, as well as speed and effectiveness in instructional processes. LMS has several functions in learning and training activities. It concentrates and automates administration, provides services and guidelines for independent use, and regularly arranges and presents learning content. Additionally, it supports flexibility and better standardization and manages the reuse of learning content (Ellis, 2012). Perceived usefulness is defined as the perception of how the user sees improvement in learning effects through the adoption of an E-learning system (Sun et al., 2008).

The use of the Learning Management System (LMS) right now is a fundamental asset for many educators around the world. These platforms provide powerful and flexible working tools to support and manage your learning process. LMS has provided positive benefits for its users, specifically in terms of academic achievement. According to Marineo and Shi (2019), the literacy module integrated into the LMS positively impacted the student's academic achievement. Students who use LMS perform better, with a positive outcome on academic achievement (Mijatovic, Cudanov, & Jednak, 2013). LMS should enable users to communicate synchronously through online learning activities (Hu, Ng, Tsang, & Chu, 2019). In line with this, Wang and Chen (2008) found that synchronous online learning helps improve students' performance. It should also help students search for and share information (Lonn & Teasley, 2009). This requires an LMS application that could be used with smartphones to facilitate synchronous online learning. Therefore, the compiled LMS should contain all learning administration, including tests, assignments, and teaching materials.

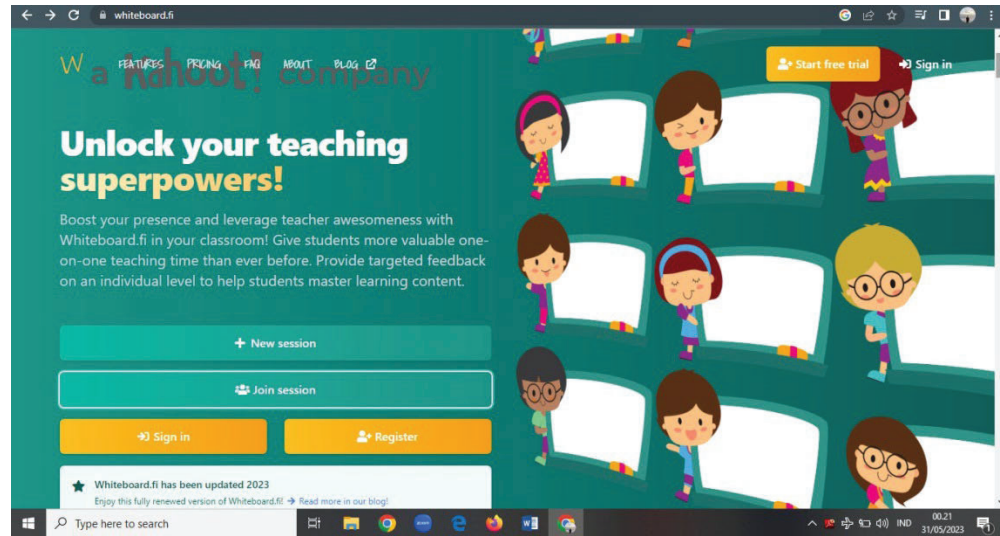
In short, Learning Management (LMS) is a new breakthrough in the world of education. With so many benefits for teachers and students, the things obtained can be the first step for future education in this world.

2.1.2 Whiteboard.fi Website

With the help of technology and the impact of this pandemic, there are many ways to do online learning, such as online meetings, video explanations, blended learning, and many others. One of them is using the website whiteboard.fi. A website is a collection of pages that contain certain information and can be accessed easily by anyone, anytime, and anywhere via the internet. Whiteboard.fi is one part of the website. As we know, the whiteboard is a tool that is commonly used in a class to help teachers in the learning process. With the whiteboard.fi website, we internet users can use the whiteboard online, which can be accessed by all users of the website.

Whiteboard.fi was formed in 2016 in Finland. Based on information from the website, whiteboard.fi was created by Sebastian Laxell and Jaako Virtanen. Whiteboard.fi was created to be a technology tool that teachers around the world can use. Based on the experience of the creators of this website, they know the difficulties experienced by teachers, so with that experience, they created the whiteboard.fi website. "It's not about the tools: it's about the teachers. But the best teachers should have the best tools!" This is one of their statements on whiteboard.fi for coaches and teachers.

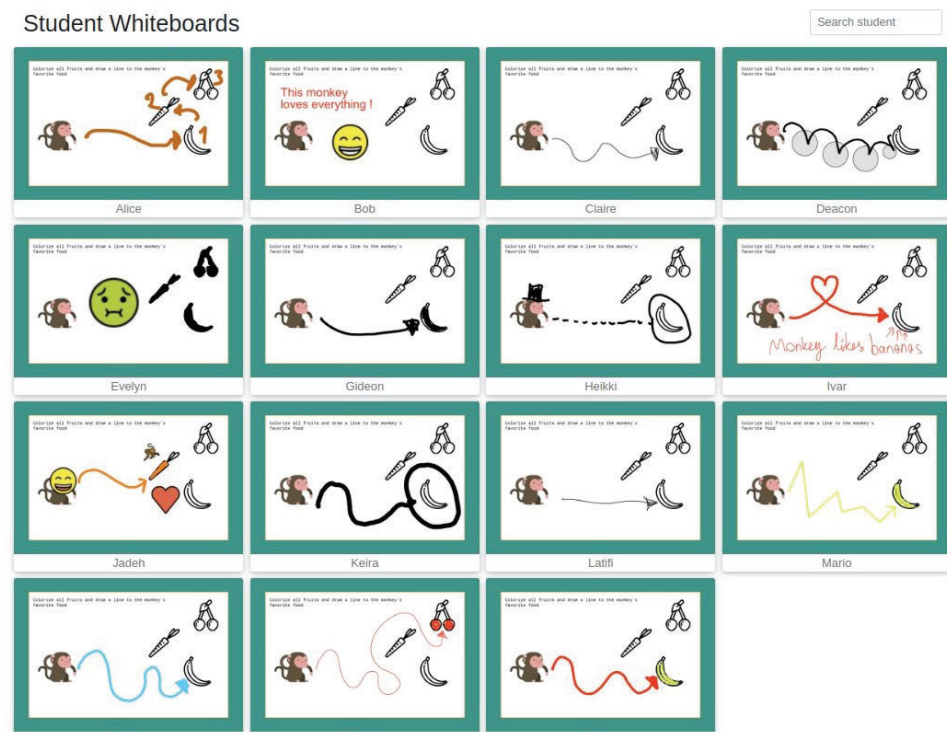
(Figure 1 Whiteboard.fi Homepage View)



This website can be used directly by specifying it in the browser search field. By entering the word “whiteboard.fi,” the user will immediately find the website. After entering this website, the user will be shown options and directions for using it. In the first option, there is a "join class" option; if students or users choose this option, they will enter the room that has been prepared by the teacher by entering the code that has been given. Next, if users choose "new class," they will create a room that will be used by participants or students. After that, a code will appear that users can give so that our participants or students can access the room that has been made. Then next, the view will show the main feature, namely the online whiteboard. In this section, the display that users see will differ from that of the room maker and room participants. If participants enter as room creators, then in the layer view, the user will see a whiteboard that is used by all participants who use the room we have created. If the user accesses it as a participant, it will display a whiteboard that the user can use. Lamb (2022) stated "Once students are logged in, you can view each student’s whiteboard, which means that you can see the changes that the students are making to their individual

whiteboards in real-time, but they cannot see each other's whiteboards. You can also send your whiteboard to each of the students' whiteboards, which allows you to create things for them to respond to. The teacher can create multiple boards in advance to push to student whiteboards. Teachers can add pictures, worksheets, emojis, and text to drawings as some of the many different types of boards you can send to students."

(Figure 2 View From the Teacher)



Picture 2.2 View from the Teacher

2.1.3 Teacher's Perception

In this world, humans generally can think, but every human being is different. So this is the cause of humans having different perceptual thoughts. (Campbell et al., 2009) stated that "perception is defined as something that is being observed and what is said about it, and it is a process where one will

form an impression about someone or something”. In the Psychology Dictionary, “Perception” is the process of knowing or recognizing objective objects and events with the help of the senses.

Another statement has pointed out that a teacher’s beliefs directly affect both their perception and judgment of teaching and learning interactions in the classroom, resulting in classroom practices including teaching techniques, classroom management, and dealing with problem behaviors (Aksoy, 2015). With the various changes in the world of education today, teachers must be able to manage and apply various new ways of learning. Based on the changes experienced by the teacher, their understanding or reaction will change a lot compared to before. On the other hand, Yohana (2022) stated, “Their perceptions were analyzed in three aspects: perceived usefulness, perceived ease of use, and their attitude toward online English language learning. The participants showed a positive perception of the usefulness and ease of online learning systems during the pandemic Covid-19. Still, more than half of teachers did not agree on its effectiveness’. From this statement, it can be concluded that there are still many teacher differences and impressions that differ from each other because of the current teaching technique changes. Therefore, teachers have many ways for using the whiteboard.fi website in classroom learning.

So with the current situation, this proposal will focus on knowing how teachers think about using the whiteboard.fi website in the learning process in class. Every change must have a different impact so every teacher must have critical thinking power and from this will get new knowledge.

2.2 Study of Relevant Research

There are several studies related to whiteboard.fi, but these studies use different languages, so it will be difficult to keep using these studies. There is

one study that focused on the use of whiteboard.fi in learning activities. Eviyanti (2023) has conducted research to the several student perspective in the English class regarding the use of whiteboard.fi. The students felt that whiteboard.fi has positif impact in the learning process. The result of this studies showed whiteboard.fi is a benefical media for the learners. In this section, the researcher will take samples from studies that are almost related to whiteboard.fi.

Research related to the whiteboard.fi website is the perception of teachers on the use of interactive whiteboards, namely research from Lewis (2017) in which she looked for the impact on teachers from using interactive whiteboards. In this study, it was almost the same as our topic, but what makes it different is the interactive whiteboard. Lewis (2017) argued, “IWB enabled students to have a deeper engagement through simulation, as well as the ability to touch and move digital objects.” Even though they are different, we can conclude that just using an interactive whiteboard can have a very big impact on the delivery of material in class.

Another study by Gutami et al. (2022) examined the teachers' perception of using Moodle as a platform in the teaching process. This study aims to determine the perceptions of pre-service English teachers about the implementation of online learning using Moodle. The results of this study have several positive impacts, one of which is the flexibility of online learning, which has a primary significance in that it offers more freedom to students. This is the most appealing factor as far as the flexibility of online learning is concerned. With online learning, students can easily access the learning process because it can be done anywhere and anytime.