



## The Implementation of Flipped Classroom by Using LMS (Learning Management System)

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### Abstract

*This study aimed to describe how the implementation of flipped classroom by using LMS (Learning Management System) at SMA NEGERI 6 Tanjungpinang. The research design in this study was descriptive qualitative research. The participants of this study were the English teacher and students of XI MIPA class in the English subject at SMA NEGERI 6 Tanjungpinang in the academic year of 2020/2021. The instruments for collecting the data were questionnaires and interviews. The questionnaires in this study was developed by Song (2010) there were 5 indicators, namely students' interest, ease of access, perceived usefulness, perceived instruction delivery, and students' satisfaction. Then, the interviews in this study was developed by Almrashdeh (2011) there were 3 indicators, namely planning of specific learning process, implementation of specific learning process, and assessment of specific learning process. The results of data analysis revealed that the implementation of flipped classrooms by using LMS (Learning Management System) at SMA NEGERI 6 Tanjungpinang was quite good.*

**Keywords:** Implementation, Flipped Classroom, LMS (Learning Management System), English Subject

### I INTRODUCTION

The rapid advances in information and communication technology (ICT) have revolutionized every aspect of human life, including the way people communicate, work, and receive education. As the world enters a 21st century civilization, students are also affected by change. Technology influences students surrounded by digital media and characterizes students as a technology-influencing environment.

When the researcher did an internship at SMA NEGERI 6 Tanjungpinang, the world society, especially Indonesia, faced with the COVID-19 pandemic and spread to various areas of human life, including the education sector, the government rejected it. Teaching and learning activities was held at school to study at home. Through circular letter of the Ministry of Education and Culture No 4 of 2020 concerning implementation of education policies in emergency of the spread of Coronavirus Disease

(Covid-19) which is further strengthened by a circular letter No 15 of 2020 concerning the guidelines for implementing study from home in emergency spread of Coronavirus Disease (Covid-19) pandemic.

An alternative learning method that fits the current situation is called the flipped class method. Upside down classroom is a modern methodology that has gained a lot of popularity in recent years. Flipped classroom is a departure from traditional teaching methods. An emerging learning methodology, reverse learning applies a reverse learning process that provides learners with more time to use English in and out of the classroom (Sams & Bergman, 2012). Akçayır & Akçayır (2018) refer to the inverted classroom as a new and popular learning model in which activities traditionally performed in the classroom (e.g. presenting content) become home activities, and activities that typically make up homework become classroom activities. The fundamental goal of the flipped classroom should be to create a learning atmosphere that is centered on the students. Students have greater control over their own learning and have time to think and become more critical learners when classes and information are more accessible (Mehring, 2018). Scott et al., (2016) shows that inverting the roles of homework and classroom activities has become a unique way to reverse learning. Students acquire new knowledge in the classroom, for example, practice at home through homework in traditional learning.

In order to support the online learning process to make it better, learning technology is needed. One of the learning environments that have gained acceptance is the learning management system (LMS) (Philosophy et al., 2018). LMS is very popular nowadays, where almost every Senior High School in Indonesia uses these media to create their virtual learning environment (Hamid, 2015). Almrashdeh et al., (2011) stated LMS is a software application or web-based technology used to plan, implement, and assess a specific learning process. By using LMS, the teachers and students can easily share information and new things related to teaching materials delivered by publishing or updating the content or assignment in LMS.

Moodle is one of the most popular open source applications among other learning management systems such as Atutor, Chamilo, Claroline, etc. You can use Moodle to create study materials, quizzes, ezines, and more. Moodle itself stands for Modular Object-Oriented Dynamic Learning Environment (Syukur, 2014). Moodle is a free and open source learning management system that lets you build interactive, flexible, and engaging online learning experiences. Moodle provides learners with an online learning experience through interspersed web pages, images, some animations and online quizzes. Teachers and students can communicate via e-mail or bulletin boards (Rice, 2015). The Moodle application was first developed with Moodle version 1.0 Jin (2012) by Martin Dugiamas in August 2002. Moodle is production software from e-learning for learning environments to web formats. The app allows students to log in to their digital classroom and access their learning materials. Moodle can be used to create learning materials, quizzes, ezines, and more (Darmawan, 2014).

There is some previous study that relevant with this study. Soliman (2014) conducted the research and the result of his research are E-learning is an essential tool that should be used to supplement the EFL face-to-face class. E-learning Moodle needs to be activated in the English language Modules to increase the time that students interact with the language and motivate them to work independently and thus eventually they become life-long learners. Mas & Surjono (2018) did study and discovered that using a flipped classroom approach in conjunction with Moodle in the learning process can considerably assist students in achieving higher order thinking skills based learning outcomes. Moreover, Bentabol (2019) conducted the study and found that using the Moodle lesson as an active approach enhances student motivation and helps them improve their academic performance while also allowing them to learn at their own speed and independently. The variables, subjects of the study, participants, and methods employed in this research differ from those previous studies.

Based on researcher observations when carrying out the internship at SMA NEGERI 6 Tanjungpinang, the researcher found that the students and teachers face some problems. Some of the students were still getting problems and difficulties in learning using LMS as learning media during pandemic. Students had limited understanding about the material. For example, if the teacher gave an assignment to the students and the students must submit the assignment through LMS, there where some

students who did not submit the assignment and some students who only copy from Google. There are some parts of material students did not understanding. The students and teachers also have difficulty in access and operating LMS, because of their internet signal and the knowledge about the technologies in virtual learning like LMS. Based on the problems mentioned, the researchers wanted to describe the implementation of flipped classroom by using LMS in the eleventh grade students of English subject at SMA NEGERI 6 Tanjungpinang.

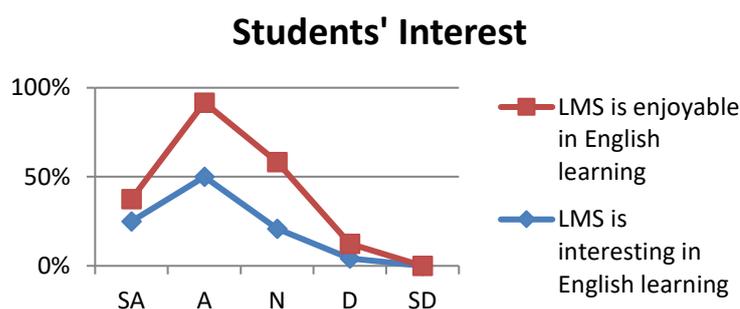
## II METHOD

In this research, the researchers used descriptive qualitative approach. Qualitative research, according to Mills (2016), is the collecting, analysis, and interpretation of detailed narrative and visual data in order to acquire insights into a specific topic of interest, qualitative research is the collection, analysis, and interpretation of comprehensive narrative and visual data to gain insights into a particular phenomenon of interest. This research was conducted at eleventh grade students of English subject at SMA NEGERI 6 Tanjungpinang which is located at Jl. Raya Senggarang KM 23, Tanjungpinang City, Riau Archipelago in September 2021. The questionnaire were distributed to the 24 students in XI MIPA class of English subject at SMA NEGERI 6 Tanjungpinang who used LMS in their English learning process on 23<sup>rd</sup> September 2021 via WhatsApp group.

The researchers used questionnaire and interview to collecting the data. This study used an open-ended and close-ended questionnaire. Questionnaire that used in this research was developed by Students' interest, ease of access, perceived usefulness, perceived instruction delivery, and students' satisfaction were among the five indicators identified by Song (2010). The interviews in this study were developed by Almrashdeh et al., (2011) and included three indicators: planning, implementation, and assessment of a specific learning process. To cross-check data from the questionnaire and interview, the researchers used the triangulation method. According to Creswell (2012), triangulation is the process of correlating evidence in qualitative research descriptions and themes from different individuals (e.g., a principal and a student), types of data (e.g., observational field notes and interviews), or data collection methods (e.g., documents and interviews).. The researchers reinforced the data used several theories that could support data validation. The use of this method of data validity is to comparing the result of questionnaire and interview to make a more accurate conclusion.

## III RESULT

The questionnaire was divided into five categories. Therefore, the researchers categorized the data in form of table, as follows:



**Figure 1 Students' Interest**

Based on the Figure 1, the majority of students selected "Agree" for the first statement and "Agree" for the second statement. It showed that students' interest above proved that the students had interested in doing the English learning process by using LMS because there are many tools of LMS that can helps the students and learning by using LMS could gave the students new experiences in

learning English. Then, the students felt enjoyable because the LMS was easy to understand and the material that given by the teacher in LMS were clearly at all. These result proved that the students had interested in doing the English learning process by using LMS.

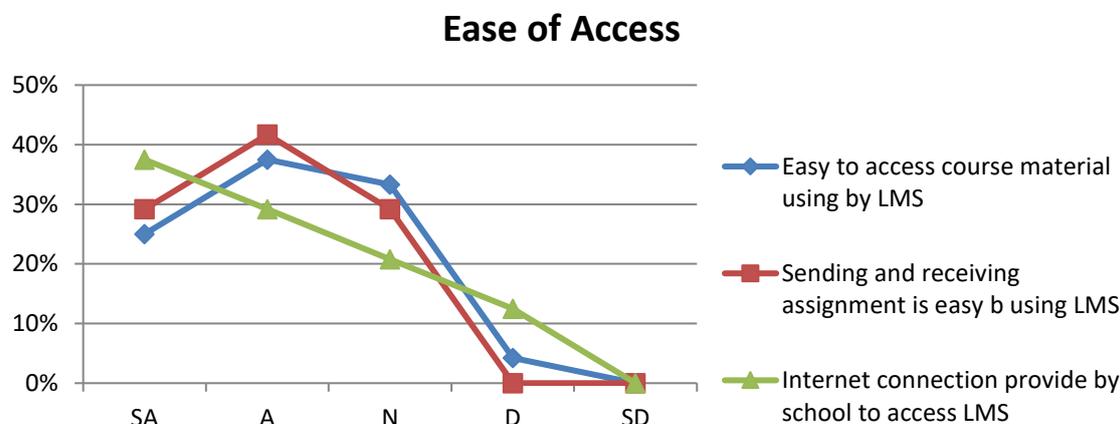


Figure 2 Ease of Access

Based on the Figure 2, most of the students chose “Agree”. It showed that LMS ease to access the course material, but students still have some obstacle when accessing LMS because of internet connection which is not stable. Then, LMS was ease to access when the students sending and receiving assignment, also students was ease to accessing LMS systems because in the school is provide the internet connection. These result proved that LMS was easy to access while student doing English learning process during flipped classroom or distance learning.

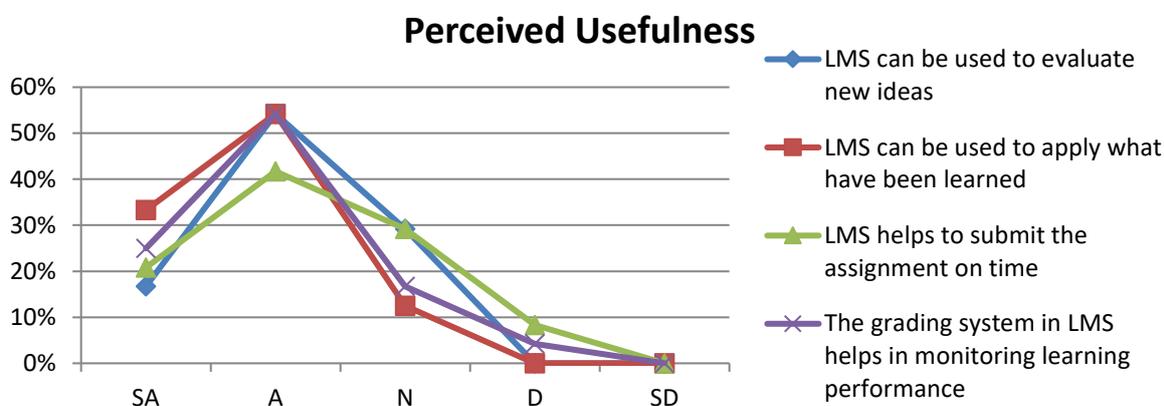
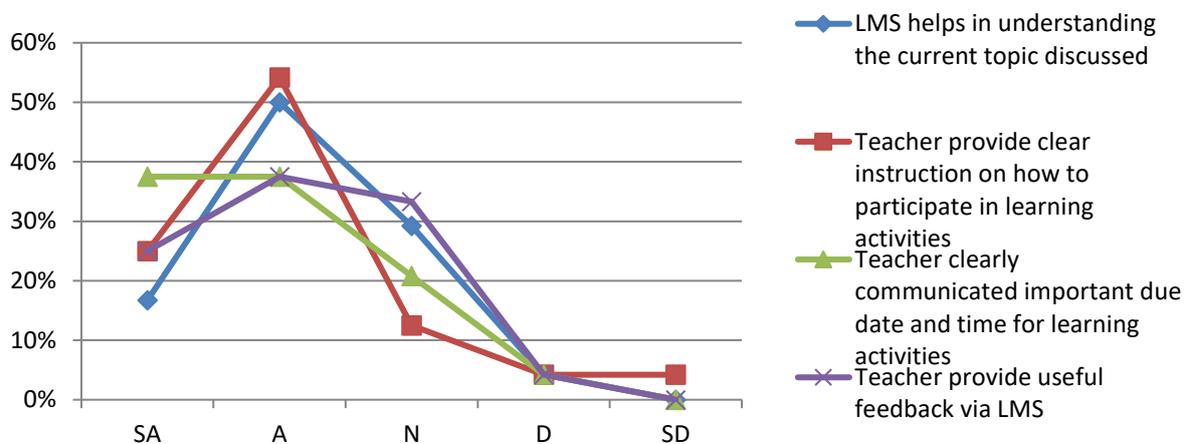


Figure 3 Perceived Usefulness

Based on the Figure 3, most of the students chose “Agree”. It showed that the LMS could help the students to evaluate new ideas. Students can use LMS to help them apply what they've learned by allowing them to re-open the course content that the teacher has taught and see it repeated. The LMS then assisted students in submitting assignments on time, though some students experienced difficulties due to poor internet connectivity, and LMS also assisted in the monitoring of students' learning performance. These findings demonstrated that a learning management system (LMS) can be beneficial in the distance learning process.

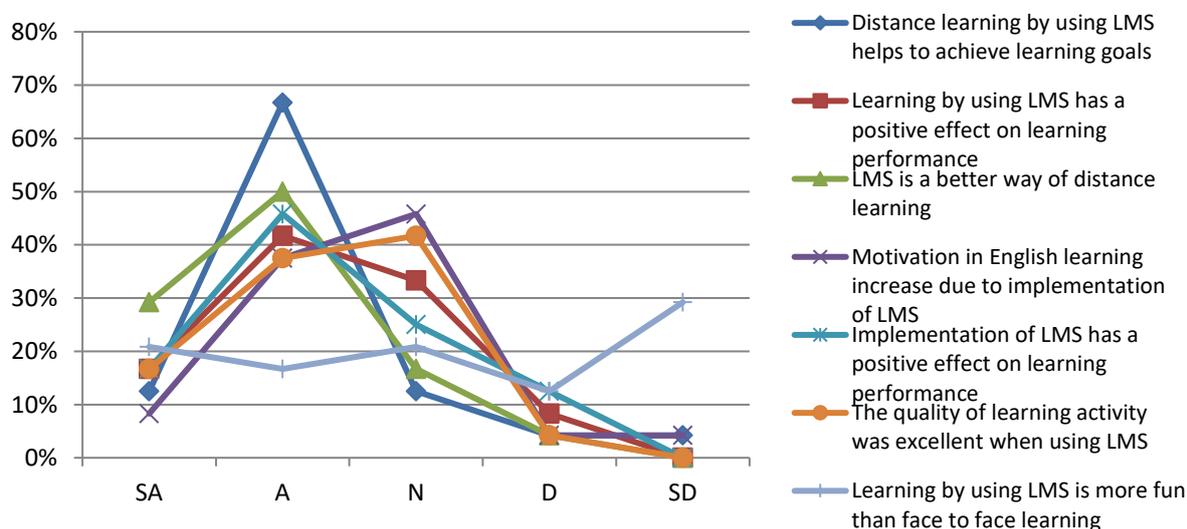
### Perceived Instruction Delivery



**Figure 4 Perceived Instruction Delivery**

Based on the Figure 4, most of the students chose “Agree”. It showed that the LMS was help the students in understanding current topic discussed because at LMS the teacher also gave the detail explanation about the course material. Then, the English teacher provide clear instructions at LMS on how to participate in learning activities as well, also the students totally agree the teacher has clearly communicated due to date and time for learning activities and the teachers provide feedback that allow the students to better understand the content of the course. These result proved that the students felt the instruction delivery was good enough during distance learning process by using

### Students’ Satisfaction



Based on the Figure 5, most of the students chose “Agree” and “Neutral” for statement 1-6 and most of the students chose “Strongly Disagree” for the seventh statement. It was discovered that using a learning management system (LMS) could assist students in achieving their learning objectives in a flipped classroom or through distance learning. While some students believed that using a learning management system was beneficial, others believed that using a learning management system in a face-

to-face setting would have a greater positive impact on students' learning outcomes. During the pandemic, the students believed that using a learning management system (LMS) was a better way to do distance learning. Furthermore, half of the students believed that using a learning management system while studying English online increased their motivation to learn the language. The students believed that the implementation of LMS had a positive effect on their learning performance, and that the quality of learning activities by using LMS was excellent because LMS was easy to access, and that the English learning process was more effective in face-to-face because face-to-face was more fun and exciting, so the students prefer face-to-face learning over distance learning via LMS. These findings demonstrated that students were satisfied with their learning activities while using LMS for distance learning.

After distributed the questionnaire to the students, the researcher interview with English teacher named Mr. Sapiril Pohan on Wednesday, September 29<sup>th</sup> 2021. There were nine questions that the researcher asked to the English teacher named Mr. Sapiril Pohan. The questions that the researcher asks to the teacher were his perception toward planning of specific learning process, implementation of specific learning process and assessment of specific learning process. Based on the interview with Mr. Sapiril Pohan, the researchers could describe as follows: the result of interview showed good result of implementation of LMS Moodle as learning media during flipped classroom or distance learning however still found some obstacles in implementation LMS of English subject at SMA NEGERI 6 Tanjungpinang.

## **IV DISCUSSION**

### **1. Students' Interest**

Based on the findings result, in the first statement showed that almost half of the students were interested to do English learning process by using LMS because there are many tools of LMS that can helps students in learning process and learning by using LMS could gave the students new experiences in learning English. In the second statement showed that the students were enjoyable, because the material that given by the teacher in LMS Moodle were clear at all. These results proved that the students had interested in doing the English learning process during flipped classroom or distance learning by using LMS Moodle. It is suitable with Schunk et al., (2014) theory that states that a common belief is that people will learn and perform well if they are interested and, conversely, will not learn or perform well if they are uninterested.

### **2. Ease of Access**

Based on the findings result, in the first statement showed that most students do not have serious problems in accessing LMS Moodle. In the second statement showed that the LMS Moodle was ease to access when the students sending and receiving assignment, then in the third statement showed that the students was ease to accessing LMS Moodle systems because in the school is provide the internet connection. Song (2010) theory states that Students can participate in online classes at any time and from any location where they have access to the Internet. These result proved that the students aware that LMS Moodle was admitted being easy to use and access, especially for the purpose of receiving and submitting the assignments while student doing English learning process during flipped classroom or distance learning, even though there was a problem with the internet connection but it was not serious problem because in the school is provided the internet connection or Wi-Fi. The result of the study is supported by Davis theory in Song (2010) ease of use is defined as a person's primary perception that using a particular technology or system will be enjoyable.

### **3. Perceived Usefulness**

Based on the findings result, in the first statement showed that LMS Moodle was interested and could help the students to evaluate new ideas. In the second statement showed that the LMS Moodle could help the students to apply what has been learned. In the third statement showed that LMS Moodle was help the students to submit the assignment on time. In the fourth statement showed that the LMS Moodle could show the graphic score on the every course. It meant that the grading system in LMS helps in monitoring students learning performance as well. These result proved that the LMS Moodle is

useful for help learning process during distance learning. It supports by Song (2010) theory that perceived utility is obvious when online course students see the e-learning system and service as a beneficial instrument for improving their academic performance.

#### **4. Perceived Instruction Delivery**

Based on the findings result, in the first statement showed that the LMS Moodle was help the students in understanding current topic discussed. In the second statement showed that the English teachers provide clear instructions at LMS Moodle on how to participate in learning activities as well. In the third statement showed that the teacher gave clearly schedule, the students totally agree the teacher had clearly communicated due to date and time frames are well understood for learning activities. In the fourth statement showed that some teachers provide a useful feedback that allows the students to better understand the content of the course. These result proved that the students felt the instruction delivery was good enough during distance learning process by using LMS Moodle. The result is in line with Kusuma & Sunardja (2021) findings about perceived instruction delivery of LMS Google Classroom that the lecturer provides clear instructions, information on due dates/time frames for learning activities, tasks, and feedback.

#### **5. Students' Satisfaction**

Based on the findings result, the first statement showed that LMS Moodle could help the students to achieve their learning goals during flipped classroom or distance learning. In the second statement showed that the LMS Moodle gave useful knowledge. In the third statement showed that LMS Moodle was better way to do in distance learning, especially during this pandemic. In the fourth statement showed that the students felt they motivated in learning English was increase due to implementation of LMS Moodle during distance learning. In the fifth statement showed that the LMS Moodle had positive effect because it was easy to use and there were a lot of features that very useful, the result proved that the students believed the implementation of LMS Moodle has a positive effect on students learning performance. In the sixth statement showed that the quality of learning activity by using LMS Moodle was excellent because LMS Moodle was easy to access. According to (Song, 2010) found that in three criteria, information quality, system quality, and service quality, the e-learning system/service has the biggest influence on student satisfaction. The result proved that the quality of learning activity by using LMS Moodle was excellent. Then, in the seventh statement showed that English learning process was more effective in face-to-face, the students prefer face-to-face learning than distance learning by using LMS Moodle. These result proved that the majority of the students admit it satisfying through learning activity during distance learning by using LMS Moodle. It is supported by the theory of Weerasinghe et al., (2017) that student satisfaction is defined as a short-term attitude resulting from the evaluation of a student's educational experience, services, and facilities. From the discussion of the research, it could be seen that the students of XI MIPA class of SMA NEGERI 6 Tanjungpinang who learn by using LMS felt interest and enjoyable when learn by using LMS, LMS is easy to access, LMS perceive usefulness for help the students in learning process, they feel the instruction delivery was good enough and students satisfy with LMS. The result shows that LMS is useful and helpful for the students in doing English learning activity during distance learning. Student satisfaction is described as a short-term attitude arising from an appraisal of a student's educational experience, services, and facilities, according to the theory of Weerasinghe et al., (2017). According to the findings of the study, students in the XI MIPA class of SMA NEGERI 6 Tanjungpinang who learn using LMS find it interesting and enjoyable, LMS is simple to use, LMS perceives usefulness for assisting students in the learning process, they believe the instruction delivery is adequate, and students are satisfied with LMS. The findings demonstrate that LMS is beneficial to students who are engaged in English learning activities while studying at a distance. LMS could greatly assist students and teachers in the learning process; LMS was very suitable for both students and teachers as a learning media; students' skill in operating LMS varied depending on the type of study on the LMS; students showed interest and liveliness in the learning process by using LMS; the implementation of LMS during flipped

classroom or distance learning was quite good; and assessment tools of LMS Moodle were suitability to achieve.

## **V CONCLUSION**

Based on the findings and discussions in this research, the implementation of flipped classroom using LMS at SMA NEGERI 6 Tanjungpinang was quite good during flipped classroom or distance learning, students and teachers found LMS to be very useful and helpful for supporting teaching and learning activities as a learning media. Because the LMS has many features that allow students and teachers to easily access assignments, send and receive assignments, and track student grades.

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