



Implementation of LMS Viska Learning on Motivation and Learning Achievement of Class XI OTKP Students of Vocational High School

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ABSTRACT

Keywords:

Achievement; LMS
Viska Learning;
motivation.

The changes that occur in the education aspect, namely learning models and learning media, encourage SMK Negeri 6 Surakarta to use the Viska Learning Learning Management System (LMS) product as a medium for the learning process between teachers and students. The purpose of the study was to determine the effect of LMS Viska Learning on the motivation and learning achievement of students in the Financial OTK subjects of class XI OTKP Vocational High School 6 Surakarta. The research method used is descriptive quantitative research with research instruments using questionnaires and questions midterm and final exam. The results showed that there were 74.76% HM, 15.88% MM, and 9.34% LM. Student achievement in use of LMS Viska Learning shows the range of values for one semester. Based on the distribution of scores in each range, it shows that LMS Viska Learning has had a positive impact on students in class XI OTKP 1, 2, and 3. From a total of 107 students, scores in the range II – IV have decreased. While in the range of values of V, there was a significant increase. Utilization of Viska Learning LMS in the learning process can increase high learning motivation to achieve good achievements effectively.



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A. INTRODUCTION

Education has an important role in preparing the resources quality, independent, creative, critical thinking, so as to be able to adapt according to his era (Komariah, et al., 2019). One of the education is competencies that must be mastered by students as vocational students like hard skills and soft skills. Students must be able to achieve indicators of achievement of both knowledge competence and skill competence. However, for this pandemic period, students are more required to have skill competencies by selecting basic competencies that are essential for the lives of students later/future students.

Changes that occur in several aspects: aspects of the learning model and aspects of learning media. Before the pandemic period, the aspect of the learning model was using the face-to-face method either in class or outside the classroom. So that the learning process occurs directly with the learning media of textbooks, blackboards, markers, and other supporting equipment. Meanwhile, after entering the pandemic period, the learning model is using online methods by applying face-to-face virtual. So that the learning process does not occur directly with learning media through educational platforms and similar applications (Saputra, et al., 2018).

System online learning that has been implemented in the world of education has currently been going on for two years since the pandemic took place. Some of the weaknesses of the online learning process include, (1) students' health because they stare at laptop monitors for too long; (2) limited material absorption; (3) students cannot interact directly with their friends and teachers; and (4) low learning motivation (Syachtiyani & Trisnawati, 2021).

The existence of weaknesses that occur in the online learning process can affect learning motivation and student achievement. The learning motivation possessed by students is closely correlated with the learning achievements obtained during the learning process. The motivation that exists in students can be grown with an interest in the learning media used. Furthermore, when the level of motivation is higher, students tend to obtain high learning outcomes as well. This becomes a reference for assessing the critical power possessed by students (Saputra et al., 2018).

According to research conducted by (Nasrah & Muafiah, 2020) explained that students' learning motivation in online learning has a percentage of 74% (high motivation), 1% (low motivation). Then on student learning outcomes there are 52% who are in the very good category, while the analysis of student scores gets an average of 87,192 in the good category. Similar research results have been carried out by (Cahyani, et al., 2020) stated that during the pandemic student learning motivation was still in the good category. The online learning process that has been carried out does not make learning motivation and student learning outcomes low, but with online learning students become motivated to carry out the learning process.

In general, it can be said that online learning has a positive impact on students' motivation and learning achievement. However, in the early days of the pandemic, students often did not understand the material (learning loss). This situation often occurs because (1) the internet signal is blocked; (2) students are just doing assignments; (3) students' understanding is low; and (4) the teacher's limitations in using learning media and limitations in explaining subject matter to students.

So the phenomenon of learning loss that occurs in students is closely related to the learning media chosen and used. Learning media that are less interactive and effective in exploring students' motivation and learning achievement can worsen students' critical reasoning power which has an impact on the non-achievement of hard skill and soft skill competencies of vocational students (Norazlina et al., 2013). The phenomenon of learning loss in students can be solved by changing the learning model by repeating it gradually to student understanding. Based on the results of observations, students who have intensity in learning can increase motivation and learning achievement. This is shown by the activeness of students in class virtually (Fitriani, 2020).

Technological developments to date encourage new learning models with new technologies. One of the learning media that is currently being developed is the Learning Management System (LMS). LMS products are learning media that are connected in a technology system used by educational institutions to support and manage online learning. During the pandemic, the use of digital platforms has been widely used and which are generally used as LMS media including Canvas, Moodle, Edmodo, Schoology, Google Classroom and others (Yana & Adam, 2019). However, the quality cannot be equated with the quality of education before the pandemic. So that the two competencies of students cannot be achieved properly. Responding to the innovation and development of learning media, it also encourages educational institutions at Vocational High School 6 Surakarta to develop LMS learning media technology products. LMS

product, named LMS Viska Learning. The process of making LMS Viska Learning media is based on the existing education and learning system at Vocational High School 6 Surakarta.

Good achievement comes from a good learning process well. Teaching and learning process begins with giving a problem, so enhance students' independence (Suyanta et al., 2019) One of the subjects in the LMS Viska Learning product is Financial Governance Automation (OTK Finance). One of the subjects of Financial OTK is one of the subjects taught and tested as a competency requirement for class XI students of Vocational High School 6 Surakarta. The relationship between teachers and students becomes a reference for achieving student competencies. The use of LMS Viska Learning for teachers at Vocational High School 6 Surakarta is mandatory, meaning that all teachers are required to use the learning media. This is based on the fact that the LMS Viska Learning includes materials and practice questions for students.

Based on the previous description, the change in the learning model with the LMS Viska Learning media is expected to be able to overcome the weaknesses of the online learning process, so that an increase in motivation and learning achievement of class XI OTKP students of Vocational High School 6 Surakarta can be achieved, especially in the subject of Financial Governance Automation (OTK Finance).

B. METHODS

LMS Viska Learning research on motivation and learning achievement in Financial OTK subjects for students of class XI OTKP 1, 2 and 3 at Vocational High School 6 Surakarta is a quantitative study using descriptive analysis methods on the results of observations and approaches to midterm exams and year-end assessments given to students. A total of 107 students were given questionnaires for motivational aspects and test questions to measure student achievement. The output of motivation and learning achievement in students is observed periodically to obtain a valid correlation with the use of learning technology.

The forms of student motivation can be obtained by collecting data directly through questionnaires distributed to students. The questionnaire distributed contained 100 questions related to the parameter of the level of learning motivation experienced by students during the learning process using the LMS Viska Learning in a period of one semester. Furthermore, the questionnaires that have been collected, identified the results obtained and processed based on calculations to get the percentage of each motivation point obtained, namely; high motivation, moderate motivation, and low motivation. The results of the calculations are then analyzed descriptively to find the correlations that occur in the learning process.

The stages of research on the use of LMS Viska Learning are explained in Figure 1. Based on this chart, the research process is to identify problems and phenomena that occur in class during the learning process. Furthermore, the existing learning process is evaluated to find weaknesses. The process of implementing the LMS Viska Learning is adapted to the subjects taught to students. After using the LMS Viska Learning for one semester, students were given a questionnaire in the form of 100 item questions which led to high motivation, moderate motivation, and low motivation. The achievements of students who have used the LMS Viska Learning are known by giving exam questions in the midterm exam and final exam. The results of the questionnaire and midterm exam and final exam scores obtained by students were then processed and analyzed to find out the correlation with the effective and efficient, as shown in Figure 1.

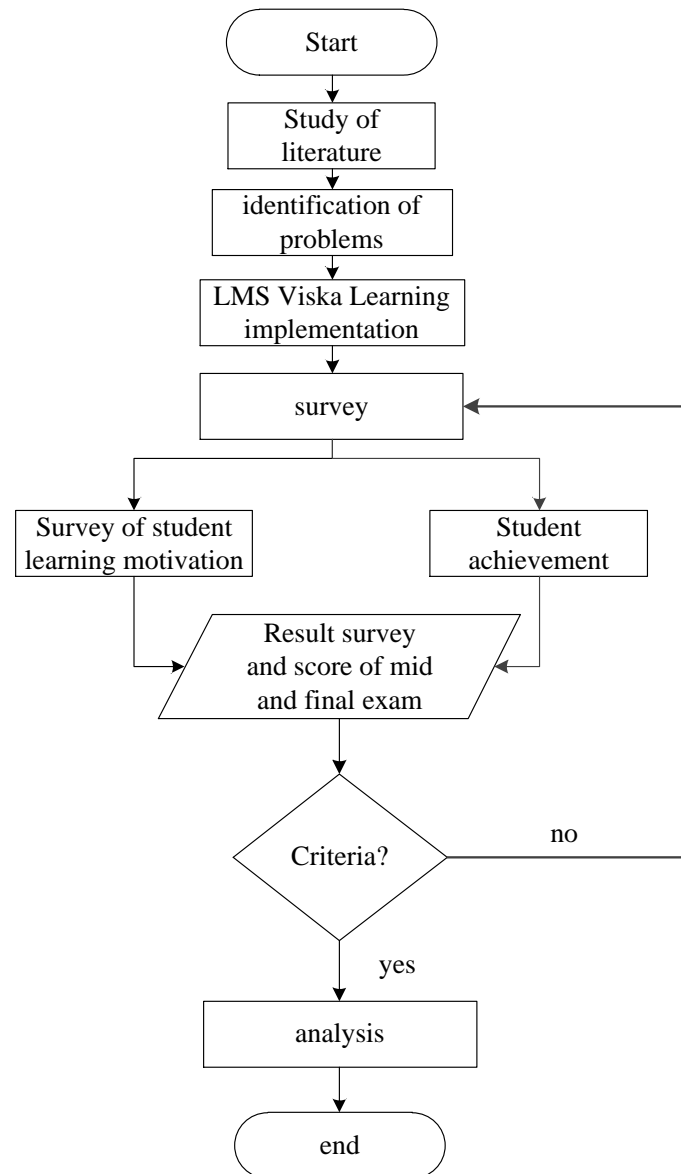


Figure 1. LMS Viska Learning research flow chart

The step of implementing the LMS Viska Learning media for Financial OTK subjects in class XI OTKP 1, 2 and 3 include; (a) students access the LMS Viska Learning Financial OTK subjects from personal smartphones or other electronic equipment; (b) students learn the material that has been given by the teacher at the LMS Viska Learning according to the hours of subjects on that day; (c) students do the exercises the questions available on the Viska Learning LMS are in accordance with the practice questions given; (d) the teacher gradually corrects the students' answers that have been submitted automatically to the Viska Learning LMS system; (e) the teacher tests the students' understanding of the material with mid-semester exam questions (in the middle of the year) and year-end assessments (at the end of the year); (f) distributing surveys to students of class XI OTKP 1, 2 and 3, regarding the parameters of the level of learning motivation, and (g) identifying student learning scores, student motivation, and the relationship between students' learning motivation and the use of LMS Viska Learning through the midterm exam and final exam scores that have been obtained by students.

C. RESULT AND DISCUSSION

1. Student's Motivation Study

Motivation is a psychological impetus for each individual to take an action in achieving the goals that have been set. A motivation can be a stimulus generated from within to support activities and/or achievements. For a student, one of the motivations that often arises is the motivation to learn to get good and superior achievements. Learning motivation is also closely related to individual achievement/student learning achievement. Learning motivation can be said as an encouragement that arises both from within and from outside students to behave in achieving learning success. The level of learning motivation of students in class XI OTKP 1, 2, and 3 in general can be seen in Figure 2 and Table 1.

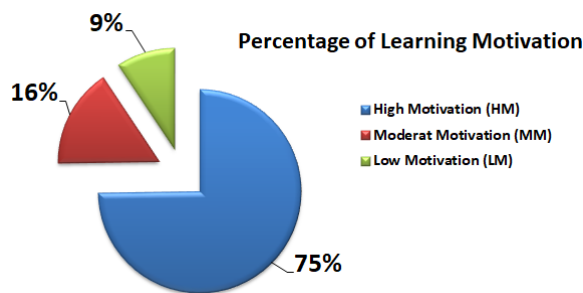


Figure 2. Percentage of Learning Motivation

Table 1. Percentage of Learning Motivation

No	Parameter	Student (person)	Percentage (%)
1.	High motivation	80	74,76
2.	Moderate motivation	17	15,88
3.	Low motivation	10	9,34
	Total	107	100

Based on Figure 2, it can be seen that there are 74.76% students who have high motivation with a total of 80 people; 15.88% of students who have sufficient motivation with a total of 17 people; and there are 9.34% of students who have low motivation with a total of 10 people. Factors that affect learning can be classified into two groups, internal and external factors. Internal factors are the factors that exist in individuals who are learning. Internal factors can be grouped into three factors (Suyitno et al., 2021). The existence of these differences is based on several internal and external factors experienced by students in class XI OTKP 1, 2, and 3. Learning motivation is an important psychological factor that determines whether or not an individual's inner drive to achieve goals is marked by awareness in learning, high enthusiasm and attention to the learning process (Febriandri, et al., 2018).

Learning motivation that arises starts from the goals to be achieved by each individual. If the individual is determined to achieve the goals that have been set, then he will consciously form motivation. This will make individuals feel comfortable following learning, have high enthusiasm and be able to control emotions when facing learning difficulties. In contrast to individuals who do not understand the set goals, of course there will be no motivation in them. So that in the individual learning process it only runs according to the demands given by the teacher and the environment. Furthermore, students who do not have the motivation to learn will be indifferent and seem indifferent in reaching the future, as shown in Table 2.

Table 2. Parameters of Student Learning Motivation

No.	Parameter	%	Description
1	Student aspirations and aspirations for success	25	HM
2	Conditions owned by students both physically and spiritually	25	MM
3	Students' ability to learn independently	5	LM
4	Environmental conditions	7	MM
5	Encouragement from teachers in motivating students	13	HM
6	Elements in learning.	25	HM

Note: HM = high motivation, MM = moderate motivation, LM = low motivation

In applying motivation, according to (Saputra et al., 2018) several factors that can affect a student's motivation to learn, including; (1) the goals and aspirations of students; (2) the conditions possessed by students both physically and spiritually; (3) students' abilities; (4) environmental conditions; (5) encouragement from teachers in motivating students; (6) elements of elements in learning. Learning motivation does not only act as a driving force or impetus within the individual, but also plays a role in providing a sense of pleasure and happiness when individuals experience the learning process. This feeling of pleasure triggers the emergence of a spirit of learning in the individual.

The size of the motivation that exists in students is based on the students' internal encouragement. Learning motivation can be said as an impetus that arises both from within and from outside students to behave in achieving learning success. High student motivation comes from several parameters that are felt directly by students. The level of motivation in students can be seen in Table 2.

The level of motivation can be analyzed that there are three parameters; the ideals and aspirations of students for success, the conditions possessed by students both physically and spiritually, and the supporting elements in learning. Learning motivation can be said as an encouragement that arises both from within and from outside students to behave in achieving learning success (Suyitno et al., 2021). Based on Table 2, the high motivation (HM) of students tends to appear when there is achievement of students' goals and aspirations for success, psychological encouragement from teachers in motivating students, and supporting processes in learning. The moderate of motivation (MM) is sufficient for students based on the conditions possessed by students both physically and spiritually and environmental conditions. The low level of motivation (LM) is based on the inability of students to learn independently to try new technologies.

The percentage distribution of HM, MM, and LM is the condition experienced by students while using the Viska Learning LMS. The aspect for HM on students is 63%, greater than 32% MM and 5% LM. The results of the research are in accordance with the theory related to motivation and growing student achievement. Someone who has learning motivation will be seen from how his attitude is in learning activities, the characteristics of students who have learning motivation include: (1) diligent, a student is able to work continuously for a long time and does not delay when given an assignment; (2) tenacious, in terms of facing difficulties a student will not give up and give up even if they do not need encouragement from the outside; (3) have an interest in various problems, able to face a problem; (4) work independently; (5) tend to like challenges so they get bored easily with routine and less creative things; (6) have a strong stand, especially if his opinion is true (Cahyani et al., 2020).

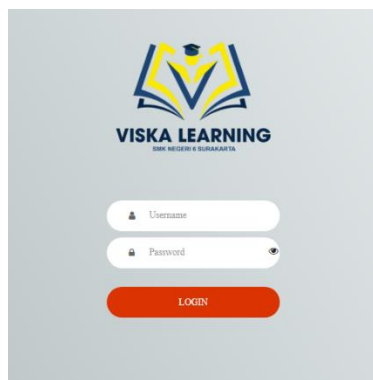
2. LMS Viska Learning

One of the important elements of implementing or implementing online learning is the availability of learning media in the form of a Learning Management System (LMS). The LMS program aims to facilitate the process of distributing learning materials and assessing the learning process. Education personnel can monitor easily. According to (Mahnegar, 2012) explained that LMS is an application or software used to manage or manage online learning which includes various aspects including material, placement, management, and also assessment.

Learning Management System (LMS) products include information technology systems developed to manage and support the learning process, distribute lecture materials and enable collaboration between lecturers and students. Through LMS, students can access the learning materials provided, conduct discussion boards with teachers through discussion forums, conduct chat, and access assignments given by lecturers. Flexibility in the Learning Management System process allows teachers and students to access the LMS anytime and anywhere and through various devices, either via PC, tablet, or smartphone (Fitriani, 2020).

Learning media is one of the uses of technology which is currently growing very rapidly. There are several learning media that have been frequently used by teachers, namely the digital canvas platform, moodle, edmodo, schoology, and google classroom. On the digital platform, it is made in general with the same level of uniformity for the same use for various needs. This can be seen by the appearance and menus used in the application. There is a home menu, profile menu, worksheet menu, and monitoring menu. The drawback is that there is no specificity to support the learning process. This has an impact on not being able to be used specifically for some educational purposes in certain subjects being taught (Balasubramanian et al., 2014). Another weakness in this type of digital platform is that there is no similarity with the education and learning system in Vocational High School 6 Surakarta. So that the general learning media is not used as a whole for students.

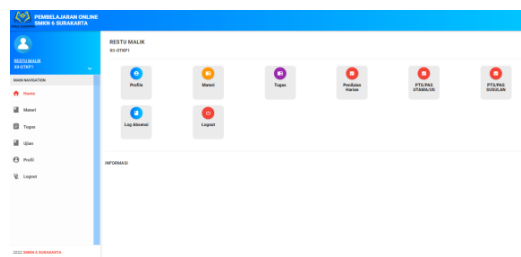
Responding to the innovation of learning media, Vocational High School 6 Surakarta created the LMS Viska Learning media which aims to make it easier for students, especially class XI OTKP 1, 2, and 3 to access the knowledge provided by the teacher. Students can independently in the learning process and work on problems. The LMS Viska Learning product is an LMS product developed by an educational institution. LMS Viska Learning is designed by prioritizing the educational needs of teachers and students. When compared with the previous learning process, there were changes before the teacher used a variety of media. some use the blackboard, whatsapp, classroom, a combination of whatsapp and classroom, depending on the technological ability of the teacher in question. However, in Figure 3, the LMS Viska Learning display has been made into a unified application with the aim of facilitating the process of providing material, controlling student attendance, giving midterm exam and final exam, ongoing assignments, academic evaluation and attitudes towards students and periodic monitoring by homeroom teachers. The advantage of LMS Viska Learning is that students learn the subject matter even though they are not at home. Meanwhile, teachers can identify student attitudes and characters based on the results obtained by students, as shown in Figure 3.



(a)



(b)



(c)

Figure 3. LMS Viska Learning Products; (a) the initial display of the LMS Viska Learning, (b) the display on the teacher user, and (c) the display on the student user

Figure 3 a shows the initial appearance of the Viska Learning LMS digital media learning platform with a user friendly interface design. Students and teachers as users can easily access the LMS Viska Learning using their respective electronic devices. The login process on learning media only uses the username and password that have been previously created, namely the student identification number (NIS). The simple login process tends to make it easier to use without the need to have an active account/email first on other digital platforms. So that students and teachers who will access the LMS Viska Learning can easily and without hassle.

In Figures 3b and 3c, show the appearance of the LMS Viska Learning on the teacher and student user interface. The basic difference is in the menu, sub menu and access rights given. In the teacher user interface, menu access is provided for teacher and student databases, student monitoring, student assessments, midterm exam and final exam evaluations, learning tools, and monitoring of student progress. Meanwhile, in the user interface, students are given menu access; materials, assignments, daily assessments, midterm exam and final exam evaluations, as well as student attendance. The differences between teachers and students are based on the level of need and urgency in accessing the LMS Viska Learning program during the learning process.

On the other hand, there are three types of users that are generally owned by LMS, namely teachers, students and administrators. The use of LMS can help shape the development of the concept and character of students. Using LMS in physics learning is effective in increasing the mastery of concepts and character development of students (Balasubramanian et al., 2014). At LMS Viska Learning, there is a team of technology experts who act as user maintenance in the process of developing learning media. In addition, a team of technology experts also plays a role in controlling the spread and development of technology to be integrated with the Viska Learning LMS, as shown in Table 3.

Table 3. Distribution of Student Scores on midterm exam and final exam

No	Range Score	Student	
		Midterm Exam	Final Exam
I	40-50	1	1
II	51-60	13	4
III	61-70	22	20
IV	71-80	59	53
V	81-90	12	29
VI	91-100	0	0

The Viska Learning LMS operating system has been created and designed to be easy to use via smartphones, ipads, and laptops. The trend of using learning media in the pandemic era in 2020 can encourage the creation of a culture of independent learning by students. The culture of independent learning with interactive, innovative, and creative learning media is able to encourage an increase in students' critical reasoning power.

In Table 3, shows the range of values and the distribution of the number of students in class XI OTKP 1, 2, and 3 which occurred during 1 semester of the midterm exam and final exam periods. Based on Table 1, it can be seen that there are 5 ranges of values ranging from 40-90. In the range of grades I, the number of students is equal to the value of 40-50. In the second grade range, there was a decrease in the number of students as many as 9 students with a value range of 51-60. In the range of grades III, there was a decrease in the number of students by 2 students with a value range of 61-70. In the range of grades IV, there was a decrease in the number of students by 6 students with a value range of 71-80. In the range of values V, there was a significant increase in the number of students as many as 17 students with a range of values from 81 to 90. In the VI grade range, there are no students with a score range of 91-100. The existence of fluctuations in obtaining scores in a certain range is based on the acquisition of student scores on midterm exam and final exam. The value of students obtained is also influenced by the ability of students to learn, understand, and use the LMS Viska Learning. There are no students who get a score of 91-100, because students have not been able to understand the material and answer midterm exam and final exam questions correctly. The results of observing the use of the LMS Viska Learning are in accordance with research (Ibrahim & Suardiman, 2014), which shows that the results of the Hotteling's Trace test show that the significance value of the experiment is 74.03 and the control group is 70.42" and the average test score for student achievement in the experimental group is 15.45 and the control group at 12.09. this shows that there is a positive influence of the use of e-learning on the motivation and learning achievement of students at SD Negeri Tahunan Yogyakarta.

The existence of the LMS Viska Learning has had a positive impact on the students of class XI OTKP 1, 2, and 3. From a total of 107 students, scores in the range II - IV have decreased. While in the range of values of V, there was a significant increase of 17 students. This is because students are able to utilize the LMS Viska Learning media effectively during the independent learning process. The material contained in the LMS Viska Learning can be understood well and is able to work on various kinds of questions quickly and precisely. The existence of students' self-confidence in understanding and working on practice questions has an impact on the level of student motivation. Students who have high learning motivation to achieve good achievements. This is in accordance with research (Fakhri et al., 2022), which shows that students show active participation in learning activities. Students are able to improve student learning outcomes. This condition is also shown by the active participation of students in

participating in synchronous learning on Zoom and asynchronous on Moodle so it can also be concluded that students have an interest in the learning process at Moodle LMS.

Student learning activities can also be monitored directly by the teacher. So that the student learning process becomes directed in accordance with the established curriculum (Mahnegar, 2012). Based on the results of observations and calculations on learning achievement, the level of weakness that often occurs in digital learning media is the phenomenon of learning loss in class XI OTKP students at Vocational High School 6 Surakarta. The phenomenon of learning loss is one of the phenomena that often occurs when students are bored in learning and the level of focus and concentration of students decreases. As a result, the understanding gained will tend to be lost after the lesson ends as evidenced by the relatively low achievement of student scores on final exam after midterm exam takes place in the range of grades II, III, and IV. The effect of using LMS on learning outcomes is also shown by the difference in learning outcomes of students who use Chamilo's LMS media which is higher, compared to students who use PowerPoint media in the subject of computer systems at SMKN 1 Driyorejo (Pertiwi & Sumbawati, 2018).

2. LMS Viska Learning Relationship to Learning Motivation and Achievement

The utilization of LMS Viska Learning learning media on learning motivation and learning achievement of a student shows that there is an interrelated relationship. Based on Table 2, learning motivation is manifested by the attitudes and character of students who tend to want to achieve the goals and aspirations of students for success, psychological encouragement from teachers in motivating students, and the existence of supporting processes in learning. This correlates with an increase in student scores after the midterm exam which shows an increase of 17 students.

This phenomenon depends on the conditions, situations, and mentality of students. The existence of high learning motivation will make students become more enthusiastic in learning. So that students will easily understand the material, learn the material and work on the questions given. And conversely, a low level of learning motivation will have an impact on students' low motivation and learning achievement as well. The process of students learning easily will later get maximum learning achievement. On the other hand, if the motivation is low, it will make students lose their enthusiasm and passion to learn so that the learning achievement obtained is not optimal (Khunaini & Sholikhah, 2021). The concept of learning in the network is a learning concept based on internet technology. Online learning emphasizes the ability of students to receive and process information provided by the teacher through learning media. Teachers and students during the online learning process cannot meet face-to-face. Rather it is limited to virtual interfaces with one another.

The demands for the use of Viska Learning LMS media have an impact on the new habits of teachers and students. Teachers and students are guided to be capable and proficient in technological developments. The existence of digital learning media technology encourages convenience indirectly to increase capabilities in the field of technology. The advantage possessed by LMS Viska Learning is that every teacher and student can access learning media anywhere and anytime. Learning media is designed to be easy to use from various groups of students who are not familiar with technology as a whole. Students can study and work on assignments independently. Teachers can upload practice materials and videos to support learning materials (Azis, 2012).

The main characteristics of online learning according to Flinders University in (Badaruddin, 2015) include; personal, structured, active, and connective. Personal aspects; focuses on each

individual be it students or teachers. Online learning is made so that students are able to study the material independently. Structured aspects; oriented to the suitability of the material being taught with the syllabus and competency achievement. In this aspect, teachers as educators have a big responsibility in preparing this. Active aspect; The active role of students is expected to be able to be carried out both in offline and/or online learning. Especially in online learning, students are not only active in learning the material, but are also active in following the development of the learning media used. Mustache connected; student and teacher connection cannot be separated. Teachers and students communicate with each other both through learning media with the aim of establishing question and answer interactions related to the material.

D. CONCLUSION AND SUGGESTIONS

Based on the research that has been done, it shows that the LMS Viska Learning has had a positive impact on students in class XI OTKP 1, 2, and 3. Out of a total of 107 students, the number of students who scored in the range II - IV has decreased from after the midterm exam, the range of values II (9 students), the range of values III (2 students), the range of values IV (59 6 students). While in the V value range, there was an increase (17 students).

A good level of student achievement is based on a high level of student motivation in the learning process. In addition, students are able to use the LMS Viska Learning media effectively and efficiently in the learning process independently, so that students have high learning motivation to achieve good achievements. The development of LMS Viska Learning as a learning medium can be used for all students of SMK Negeri 6 Surakarta, so that the teaching and learning process can be maximized and learning materials can be understood well.

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