



# Website-Based Learning Management System (LMS) as a Tool for Learning in the Covid-19 Pandemic Period for Junior High Schools

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## ABSTRAK

Ketersediaan fasilitas belum mampu mengoptimalkan pelaksanaan pembelajaran. Hal ini berarti keadaan tersebut mengakibatkan sebagian siswa tidak dapat mengikuti pelajaran online dengan baik. Terdapat sekitar 29,4% siswa yang belum pernah mengikuti pelajaran online sehingga siswa ketinggalan pelajaran yang dilaksanakan sesuai jadwal. Penelitian ini bertujuan untuk mengembangkan suatu Learning Management System berbasis website untuk memfasilitasi pembelajaran selama masa pandemi covid-19. Penelitian ini termasuk dalam jenis penelitian dan pengembangan (R&D) dengan mengadopsi model pengembangan Alessi & Trollip. Subjek penelitian ini ialah dua ahli media, dua ahli materi, serta dua guru mata pelajaran di Sekolah Menengah Pertama. Teknik pengumpulan data menggunakan tes penilaian kelayakan produk yang dikembangkan untuk masing-masing subjek penelitian menggunakan instrumen berupa angket kelayakan. Perolehan dari angket kelayakan tersebut akan dianalisis secara deskriptif menggunakan persentase untuk memutuskan kelayakan produk LMS. Hasil penelitian memperoleh data bahwa penilaian ahli media sejumlah 88,88%, ahli materi sejumlah 91,22%, dan calon pengguna yang terdiri atas siswa dan guru sejumlah 91,88%. Hal ini berarti, perolehan mengenai media dan materi pelajaran yang akan digunakan adalah di atas 81%, yang termasuk dalam kategori sangat layak atau sangat baik sehingga tidak perlu adanya revisi atau perbaikan. Dengan demikian aplikasi pembelajaran yaitu learning management system (LMS) ini dapat digunakan sebagai alat untuk menunjang proses pembelajaran selama kegiatan pembelajaran secara online.

## ABSTRACT

The availability of facilities has not been able to optimize the implementation of learning. This has resulted in some students not being able to take online lessons properly; about 29.4% of students have never taken online lessons so that students miss lessons that are carried out according to schedule. This study aims to develop a website-based Learning Management System to facilitate learning during the covid-19 pandemic. This research is included in research and development (R&D) by adopting the Alessi & Trollip development model. The subjects of this study were, among others, two media experts, two material experts, and two subject teachers in junior high schools. The data collection technique used a test based on the product developed for each research subject using the appropriate instrument. The results of the questionnaire will be analyzed descriptively using the proportion to choose the LMS product. The results of the research data that the assessment above is 88.88% of media experts, the amount of material obtained is 91.22%, and prospective users consisting of students and teachers are 91.88%, which means that the acquisition of media and subject matter to be used is 81%, which are included in the very decent or excellent category so that there is no need for revision or improvement. Thus the learning application, namely the learning management system (LMS), can be used as a tool to support the learning process during online learning activities.

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## 1. INTRODUCTION

The world is currently experiencing an outbreak of a coronavirus pandemic known as Covid-19, or Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a new type of coronavirus that is to humans which is dangerous and easily transmitted. This data is obtained from the World Health Organization (WHO) (Durnali, 2020; Shaik Alavudeen et al., 2021). The WHO named the new disease Covid-19 or Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and the disease was called Coronavirus disease 2019 (Covid-19). Efforts are currently being made to limit everyone from going outside the home or go to a very crowded place. If forced to leave the house, must use a very tight mask. This is done to avoid transmission of the

disease, which states that evidence and experience clearly show that limiting close contact between infected people and other people is very important to break the chain of transmission of the virus that causes Covid-19 (Y. C. Wu et al., 2020; Pascarella et al., 2020). The education aspect cannot be separated from the influence given by the coronavirus outbreak so that this condition greatly disrupts the teaching and learning process of students in schools. The Ministry of Education and Culture stated that the increasing spread of Coronavirus disease (Covid-19), the inner and outer health of students, teachers, school principals and all School residents have a significant role in the implementation of education policies (Bervell & Arkorful, 2020; Simanjuntak et al., 2020).

The Ministry of Education and Culture states that learning from home through online/distance lessons is carried out to provide a meaningful learning experience for students, without being burdened with completing all curriculum achievements for grade promotion and graduation (Ambarita, 2021; Winarni et al., 2021; Sumantyo, 2020). Therefore, at this time learning activities are carried out online / online, teachers and students do not meet face to face but through internet-based electronic media (e-learning) but there is still interaction between teachers and students that influence each other. During online learning activities, there are limitations in the interaction process between teachers and students, this will certainly have an impact on providing assessments or feedback to students, even though feedback is one of the supporters of increasing student learning motivation (Al-Fraihat et al., 2020; Mpungose, 2021). However, the provision of learning facilities in the form of learning platforms or applications that are tailored to the needs of students will be able to create a dynamic condition, so that an interaction in learning between teachers and students will be maintained, and vice versa even though they are not in the same room for real (Rusman, 2012; Ristanto et al., 2020; Ran & Jinglu, 2020). Therefore, limitations on the process of delivering material, evaluating questions and providing feedback can be facilitated through the use of internet technology during the learning process (Rosenberg, 2001; Bushati et al., 2012).

Many learning events during this pandemic activity were felt to have not been optimal in carrying out learning activities. As is happening at Junior High School 6 Semarang, where currently the learning process is carried out online, students learn from their homes using computers, laptops or smartphones owned by them with internet facilities and teachers upload teaching materials through the platform. His masters include Googleclassroom, Googlemeet, Zoom meeting, Office365, Quezzis, WA groups and Youtube with the material in the form of slides, PDF and Word. Based on initial observations, learning information was obtained starting with the teachers informing the students about the plans for when learning starts and what platforms to use, mostly through social media WhatsApp, Instagram and Facebook as many as 81.7%, the rest via SMS and Email. However, the availability of these facilities does not seem to be able to optimize the implementation of learning, considering that all students have computers/laptops or smart gadgets to receive learning and the problem of internet network signal is not evenly distributed in each region, this situation results in some students being unable to take online lessons properly good, there are about 29.4% of students who have never attended online lessons so that students miss the lessons that are carried out on the schedule.

Problems in the online learning process make it difficult for students to understand the material taught by the teacher, based on the results of the distribution of questionnaires distributed to respondents, namely teachers and students, information was obtained that about 86.5% of students stated that they had difficulty receiving lessons so that according to teachers there was a decrease in learning achievement of around 52.8%, this is very worrying for the continuity of their education. The decline in the quality of learning at SMP N 6 Semarang due to the Corona-19 pandemic requires a solution in the online learning process. A total of 68.6% of teachers and 59.1% of students want all subjects and teaching materials in the school year to be displayed all on one learning media, this is intended so that students can reopen or repeat the subject matter that has been taught to be studied in certain time or for students who did not attend the lesson at that time. The wishes of teachers and students in learning resources are defined as information that is presented and stored in various forms of media that can assist students in learning as an embodiment of the curriculum (Majid et al., 2012; Kurniawan, 2017).

On the other hand, the development and advancement of information technology have made online learning possible by using several learning support media, such as the internet, intranet, video or audiotape, broadcasting via satellite, interactive television (Neupokoeva et al., 2021; Phelps et al., 2021; Rusman, 2012). In addition, currently available and many e-learning platforms have emerged that are used by teachers or educational institutions, both paid and free such as some recommended e-learning applications, including Google Classroom, Ruang Guru, Schoology, our class, Edmodo, Quipper, moodle, sevima link, your school, and Zenius education (Dhika et al., 2019; Wu & Plakhtiz, 2021). E-learning is one of the essential intermediaries for learning in the current pandemic era. It causes that digital mobile technology provides new possibilities and opportunities for new learning perspectives, including the relationship between teachers and students (Sulisworo et al., 2016; Bdiwi et al., 2019). Furthermore, what cannot be eliminated is one of the functions of e-learning, namely as a complement in facilitating learning in the classroom, both in the implementation of conventional and digital classes (Mailizar et al., 2020; Al-Fraihat et al., 2020).

The learning management system (LMS) is one of the innovations that can be developed and can facilitate the less than optimal implementation of learning (Elfeky et al., 2020; Sayiner & Ergönül, 2021; Zarzour et al., 2020). Learning Management System (LMS) is a software unit that is comprehensively integrated on various features for course delivery and management, LMS automatically manages course catalog features, course material delivery and quizzes (Sakova & Chevereva, 2021; Zabolotniaia et al., 2020). Learning Management System (LMS) or Course Management System (CMS), also known as Virtual Learning Environment (VLE) is a software application used by educators, both universities/colleges and schools as internet-based online learning media (Washington, 2019; Bervell et al., 2020). The LMS allows educators and students to access it anytime and anywhere and through any device such as PC, tablet or smartphone (Bervell & Arkorful, 2020; Bradley, 2020). In general, LMS has features that must be fulfilled to facilitate the online learning process, this is because basic features that an LMS must have are: an attractive interface; customization to adjust the system according to the user's wishes; virtual class; 4) connect with social media; 5) communication features such as forums and chat; course or courses; report (Stockless, 2018; Mershad & Wakim, 2018).

Several previous studies seem to have proven that e-learning-based learning can facilitate students in the learning process, as well as provide convenience for students in accessing subject matter. E-learning will allow for asynchronous interactions, anytime, anywhere, to assist in teamwork and contribute to the use of new technologies in education (Baragash & Al-Samarraie, 2018; Tere et al., 2020). Thus, an innovation is needed to facilitate students in the learning process during the COVID-19 pandemic. The development of a website-based LMS for Junior High School 6<sup>th</sup> in Semarang is one of these innovations. The similarity of this research is regarding the aspects developed, namely the online learning platform (LMS). The difference between this study and several other studies that have been conducted is in the subjects used, and only using one subject as an experiment, where the results of this study will have implications for the sustainability of using LMS as an online learning platform for any subject material. The purpose of this research is to develop a website-based Learning Management System to facilitate learning during the COVID-19 pandemic. Therefore, this study intends to develop an LMS system that is feasible for use by students at SMP Negeri 6 Semarang as a means of supporting the implementation of learning.

## 2. METHOD

This research belongs to the type of research and development (R&D), through this research is expected to create an information technology-based learning system, namely LMS that is feasible to use in classroom activities. During the product development process, it will adopt the types of development models Alessi & Trollip (2011) that consist of three steps, which was: Planning (Planning), Designing (Design), and Developing (Development). In addition to the three steps above, there are three attributes that are always present and surround the three existing steps, namely: 1) standards, 2) ongoing evaluation, and 3) project management. The location of this research is a junior high school in Semarang, Central Java. The research subjects are two media experts and two material experts, as well as potential users consisting of two teachers. Meanwhile, the data collection technique uses a Likert scale questionnaire by providing five alternative answers, namely: very good, good, quite good, not good, very bad to determine the feasibility of each assessment indicator (Sugiyono, 2018). Therefore, the instrument used is a questionnaire packaged in the form of a validation sheet for media experts, material experts, and potential product users. Indicators that serve as a reference in formulating and making assessment instruments for media experts, material experts and potential users has been adapted to the needs of this study, those will be sequentially displayed in the following table.

**Table 1.** Learning Media Expert Assessment Indicators

No	Aspect	Amount of Question	Source/Theory
1	Program	9	Febaliza & Okatariyani (2020) & Zabolotniaia et al. (2020)
2	Technical quality and effectiveness	10	
3	Program View	10	

The instrument is then validated through an assessment process by experts before it is implemented or known as expert judgment, both from media experts, material experts and supervisors involved in this research. The data analysis technique in this research is descriptive analysis technique by converting in the form of a percentage (Sugiyono, 2018). This data analysis is intended to determine the level of feasibility of LMS media for online learning at junior high school in Semarang. Based on the calculation referring to the analysis technique above, the following are the percentages and qualitative eligibility criteria for LMS products adopted from (Arikunto, 2010) and modifications have been made according to the needs of this research.

**Table 2.** Learning Material Expert Assessment Indicators

No	Aspect	Amount of Question	Source/Theory
1	Self Instruction	7	
2	Self Contained	2	
3	Stand Alone	2	Prastowo, (2011) & Daryanto, (2013)
4	Adaptive	1	
5	User Friendly	1	

**Table 3.** User Validation Indicator

No	Aspect	Amount of Question	Source/Theory
1	Program	9	
2	Technical quality and effectiveness	13	Febaliza & Okatariyani (2020) & Zabolotniaia et al. (2020)
3	Program View	10	

**Table 4.** Percentage of Product Eligibility Criteria

No	Percentage Rate	Qualification	Information
1	81-100%	Very Good	Very decent, no need to revise
2	61-80%	Good	Decent, no need to revise
3	41-60%	Enough	Not worth it, needs to be revised
4	21-40%	Bad	Not worth it, needs to be revised
5	<20%	Very Bad	Very unworthy, needs to be revised

### 3. RESULT AND DISCUSSION

#### Result

In the results and discussion section, the first thing that will be presented is the process of developing a learning management system or LMS product that is suitable for use in the learning process, this product will be developed in accordance with the steps as adopted in the method, which consists of planning, designing, and developing. Here are the results of each stage. The first stage is planning. At this stage, the activities carried out are conducting field needs analysis by collecting information. Information collected through the process of interviews and observations with subject teachers regarding learning activities during the covid-19 pandemic. Considering that online learning is learning that is carried out independently by students, it is necessary to develop a special learning process that can be carried out not face-to-face. Given that learning has tended to be carried out independently, as well as information support from interviews and observations which state that teachers and students are accustomed to accessing the internet, it requires an integrated and structured database in the management of learning activities such as delivery of materials, assignments and evaluations. So it is necessary to have an innovation in order to facilitate the learning process during the COVID-19 pandemic, one of these innovations is the development of a learning management system (LMS) that can be accessed online, and has structured constituent components in the implementation of the management of teaching and learning activities. This LMS is an online learning platform that is open-access, where learning materials can be accessed openly by anyone.

The second stage is designing. The next stage is to make a design that refers to the results of the needs analysis. The design here is like carrying out the website installation process, customizing the appearance, making operating instructions flow, designing materials, designing questions, and other activities. It should be noted that, during the LMS development process in this research and development, assisted by a second party who has the skills and abilities in building a website-based LMS, but still under supervision and providing original ideas from researchers. The initial process by creating an HTML version of the website template is followed by making the backend or things related to the server and data base that become the working machine behind the application screen. Integrate HTML templates with code in the backend to become functional templates for application features. In order for the features to be tested or operated, or installation process is carried out on the hosting. Then the steps above are repeated in each module until all the desired modules are completed. The web-based LMS application design developed includes the desired modules such as in the online learning process including: 1) front end page design for students and parents, 2) administrator panel header & footer design, 3) authentication module, 4) module admin which includes: a) dashboard, b) account management,

c) class data management, d) subject data management, e) student, teacher and education staff data management, f) SOP management, 5) teacher module which includes: a) dashboard, b) lesson plan management, c) management of teaching materials, d) question bank, e) question management, f) task management, g) student learning monitoring, h) student assessment, 6) supervision module which includes: a) dashboard, b) monitoring the filling of lesson plans and teaching materials, c) monitoring student assessments. The third stage is developing. In this section, the design that has been made in the previous stage is then implemented in the form of a prototype that is ready to be assessed by the validator. The first step is to pour the plan into a website program so that an LMS can be formed which can then be accessed by validators. As the LMS website displays which will be shown in Figure 1. The next process is so that this learning media application can be easily used, a guide book/module is compiled and can be accessed on the face of this application. This guide book/module includes: 1) introduction, 2) user roles, 3) LMS usage guide starting from account registration, learning process activities starting from uploading, accessing material, assignments and evaluations carried out by users.

User roles consist of Admin, supervisors, teachers, students and parents/guardians who have access rights restrictions set by the admin. Admin has access rights to manage user data, manage class data, manage subject data, manage student data, teachers and education staff, manage SOPs, manage announcements, view learning topic data, view data and assignment results, view question data and evaluation result. Supervisors have access rights to manage SOP data, view learning topic data, view assignments, view assignment results, view questions and evaluation results and manage them. Teachers have access rights to manage which includes: learning topics, assignments, questions and evaluation results. Students and their parents have the right to access learning materials, assignments and evaluations. An example of the form of a manual as shown in the pictures below shows how the registration process is carried out. In the research process, the use of this LMS learning media application used craft subjects for class VII SMPN 6 Semarang with the topic of learning fruit processing, fruit by-products and vegetable processing by the Craft teacher. Furthermore, it is validated by the material validator so that the learning materials/topics are valid and can be taught by students. Examples of lesson topics and tutors are shown in Figure 2 and an example of the learning process with the topic of learning outcomes as shown in Figure 3 below.

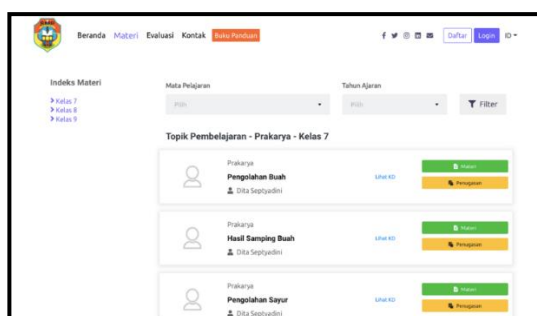


Figure 2. Display of Learning Topics

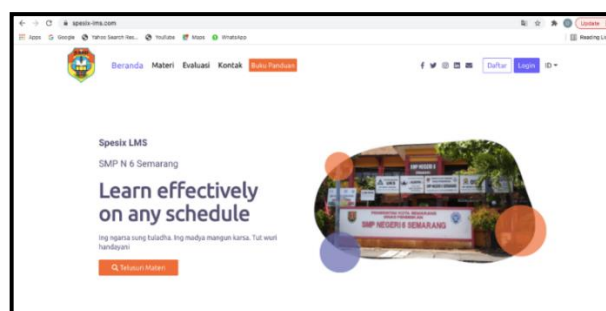


Figure 1. Website-Based LMS Interface

Before the Learning Management System (LMS) learning media product is used, a feasibility test is carried out first, in this case the Alpha test. From the results of the assessment of media experts, the average percentage value on the program aspect was 93.35%, which means that the program contained in the LMS is very feasible to operate this LMS learning media application. In the aspect of the program display, it gets an assessment of 83% which means that the display on the LMS is very feasible to be displayed for the learning process. In terms of technical quality and effectiveness, it gets an assessment of 90.28% which means it is very qualified and effective for use in learning. Overall the results of media validation can be seen in table 5 which showed an assessment of each aspect of the LMS learning media.

Table 5. Validation Results From Media Experts

No	Aspect	Validator I	Validator II	Average
1.	Program	100%	86,67%	93,35%
2.	Program View	84%	82%	83%
3.	Technical quality and effectiveness	96,92%	83,64%	90,28%
<b>Total</b>		<b>93,64%</b>	<b>84,11%</b>	<b>88,88%</b>

In general, from the validation assessment by the validator on the LMS development product, the results from the 1st media expert were overall 93.64% or included in the very feasible category, and the results of the 2nd media validator's assessment of 84.11% also included in the very feasible category. . Based on the

assessment of all media validators, they got an average value of 88.88% so it was stated that this LMS development product was very feasible and did not need revision, so that LMS learning media could be used in the online learning process at SMP N 6 Semarang.

Assessments from users or prospective users after carrying out learning trials with students obtained scores on the display aspect of the program getting an average value of 97.78% which means that this program can run LMS operations very well and can be used in learning. In the aspect of appearance, prospective users get an assessment of 91%, this means that the display on the LMS is very attractive for the learning process. The percentage on the aspect of technical quality and effectiveness got an average score of 88.47%, which means that this LMS is of very high quality and is effectively used in the online learning process. Overall, the results of the validation of users/prospective users can be seen in table 6 below which shows the assessment of each aspect of the LMS learning media.

**Table 6.** User's Validation Results

No	Aspect	Validator I	Validator II	Average
1.	Program	100%	95,56%	97,78%
2.	Program View	90%	92%	91%
3.	Technical quality and effectiveness	92,31%	84,62%	88,47%
	<b>Total</b>	<b>93,75%</b>	<b>90%</b>	<b>91,88%</b>

In general, from the validation assessment by users/prospective users of LMS development products, the results from the 1st validator overall are 93.75% or fall into the very feasible category, and the results of the assessment from the second media validator of 90% are also in the very feasible category. Referring to the assessment of all potential users, the average score is 91.88%, so it is stated that this LMS development product is very feasible and does not need revision. The assessment by the material validator on the Craft subject that will be part of the research on this LMS obtains the following data: in the self-instruction aspect, the average score is 91.11% or very good, which means that it is expected that with this material students will be able to learn effectively. well independent. In the self contained aspect, the score is 95% very good, the stone alone aspect is 80% or good, the adaptive aspect is 100%/perfect, then the user friendly aspect is 90% or very good. Overall the results of the validation of the material experts can be seen in table 7 below which shows the assessment of each aspect in the presentation of learning materials in the LMS.

**Table 7.** Material's Expert Validation Results

No	Aspect	Validator I	Validator II	Average
1.	Self-Instruction	82,22%	100%	91,11%
2.	Self-Contained	90%	100%	95%
3.	Stand Alone	80%	80%	80%
4	Adaptive	100	100%	100%
5	User Friendly	80%	100%	90%
	<b>Total</b>	<b>86,4%</b>	<b>96%</b>	<b>91,22%</b>

In general, from the validation assessment by material experts on the Craft subjects that will be used in research using the LMS, the results from the first validator overall aspect are 86.4% or fall into the very good category, the second assessment of the validator from the material expert gets an average score of 91.22% so that it is stated that the craft subjects that will be used in research on this LMS development product are very good and do not need revision or improvement. From the results of the assessment or validation by media experts, material experts and prospective users who assess the media and subject matter to be used in the study, it is very feasible or very good and there is no need for revision or improvement of the media and craft subject matter So with this research on the use of LMS learning media applications can be carried out further research.

The implementation of learning during the COVID-19 pandemic is considered to have an impact on decreasing student academic achievement, besides that students tend to feel mentally unguided during the learning process. The design stage is the next step in describing the results of the needs analysis. Previously, innovation and problem solving would be implemented in the form of developing an LMS, which was then at the design stage. Through this research and development, the output of which is an LMS-based e-learning application that meets these criteria is the answer in order to facilitate ongoing online learning activities (Mohd Kasim & Khalid, 2016; Zhang et al., 2020), considering the current learning process become very open, therefore teachers and schools can design an online learning platform (Kuzmanović et al., 2019; Ramkissoon et al., 2020), where the application will use internet and network-based information technology to be accessed

simultaneously by students, thus students feel facilitated in the implementation of learning (Rhim & Han, 2020; Adedoyin & Soykan, 2020). As it is known that in the results of this study, a platform for online learning with a proper predicate was successfully developed, namely an LMS (Learning Management System) as an intermediary for the learning process during the COVID-19 pandemic in Indonesia. Learning management system (LMS) is as a software application for administration, documentation, tracking, reporting and delivery through educational courses or e-learning training programs (Al-Fraihat et al., 2020; Mohd Zain et al., 2018).

LMS products that are developed and are suitable for use as a facility for learning will greatly affect the improvement of the learning process, this is because it includes various things that are carried out in learning, namely conveying information in the form of documentation, reporting and tracking or searching for information contained in the software application, or this is called a learning management system or abbreviated as LMS (Stockless, 2018; Mohd Zain et al., 2018; Wu & Plakhtii, 2021; Zabolotniaia et al., 2020). Obtaining an average score that is almost perfect also cannot be separated from the elements that are highly considered during the development process, several elements that form the basis for the development of the LMS, namely; 1) The usefulness of LMS lies in the specific needs of each individual or organization, LMS can be used in several activities that are tailored to the needs such as in education either in schools or in universities, 2) Technical assistance is well prepared for ongoing support, this technical assistance is very helpful in running the LMS application and can overcome the obstacles or problems encountered (Fathema & Akanda, 2020; Syauqi et al., 2020).

Moreover, several studies that mention the benefits of using LMS in learning, able to add insight and help students' understanding (Dhika et al., 2019; Akhmalia et al., 2018). From several expert opinions about the use of LMS and some research on the usefulness of LMS there are many advantages including, learning with LMS is very efficient and flexible because it can be accessed from anywhere and anytime that is still in the internet network (W. Wu & Plakhtii, 2021). This allows students not to miss lessons because they can review the lesson at any time and can provide good learning and can provide insight to students because it allows to get more information by looking for additional lessons from searching through the internet (Ali & Maksum, 2020; Zabolotniaia et al., 2020). However, it should also be noted that, there are limitations that are owned by LMS, namely when there are several places that are not connected to an internet connection, it will be difficult to access (Adedoyin & Soykan, 2020; Sakova & Chevereva, 2021), and in the implementation of the LMS so that it is optimal, it needs to be supported by student discipline in following the learning process which tends to be carried out independently.

Through this research, it was identified that there are various advantages that can be obtained if an educational institution develops an LMS-based online learning platform. As explained that there are benefits provided in order to improve the performance of teachers and students, although this cannot be separated from some of the shortcomings and limitations inherent in it. In addition, this research also obtained a product or LMS-based online learning platform that is suitable to be used to facilitate students during the online learning process, especially during the covid-19 pandemic. However, research still has limitations where it is only limited to the process of developing an appropriate platform, for that further researchers can use this article as a basis in developing a form of learning program to facilitate students learning online as well as measuring the level of effectiveness of the use of online learning platforms against students academic improvement.

#### 4. CONCLUSION

Web-based Learning Management System (LMS) can be an alternative because LMS can help teachers deliver their teaching materials electronically or in virtual classes, then students can access these subjects anytime and anywhere as long as they are covered by the internet network. In this study, it has succeeded in developing an LMS that is suitable for use in the learning process, this refers to the results of the assessment carried out by material experts, media experts and teachers as potential users. The practicality of this LMS is that it can be developed as needed and used in conjunction with other digital learning media. Thus the school will be able to manage the learning process in all subjects.

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