USING THE TECHNICAL TEACHER APPLICATION (GL 4.0) IN THE POST PANDEMIC

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ABSTRACT

KEYWORDS
GL 4.0 application, learning management system, blended learning

The implementation of the e-learning teaching and learning process using commercial media still has limited access and some focuses on the knowledge aspect, so that it becomes an obstacle for teachers in assessing aspects of students' attitudes and character. This article aims to describe the development of a blended learning platform in order to develop students' readiness to use the internet as a learning mode in the era of internet-based technology openness. The research method used in this study is a qualitative research method with a case study approach. Through the object of research teachers and students. Obtaining data by observation, documentation study and focus group discussion were then analyzed by data reduction, data presentation and conclusion drawing. The results of this study indicate that there is *user readiness* in accessing the LMS platform through optimal use of GL 4.0, the establishment of teachers presenting KBM planning in virtual managerial has been achieved by being shown to be able to prepare and upload learning resources (teaching materials and enrichment materials), assessment of student achievement and interaction. and communication of teachers with students or students with colleagues. GL 4.0 provides a space for teacher creativity so that the learning space is facilitated properly and is fun for students. Teachers in the maturity of mixed learning management between online and offline (blended learning) are the main requirements to be able to carry out these learning activities . The conclusion is that GL 4.0 is the platform of choice for blended learning KBM adaptation in schools because the simplicity of the platform makes it easy for *users* to complete media attributes or features that facilitate the conditions for blended learning to take place.

INTRODUCTION

Education has entered a new arena after exploring virtual activities in the implementation of learning and is now starting to question the ideal of the transition period in face-to-face, some say *blended learning* is based on a blend of online and offline and some offer a total face-to-face and then rest the old digital internet facilities. , instead of being consistent with the internet of everything with the argument that from era to era, humans will develop their new organs, namely the internet. (Andira, 2021) .

Apart from that, the government has a major role in making policies that are effective and target accuracy, this of course leads to the curriculum, strategies and achievements of the teaching and learning process. It should be realized that in the education dimension, new turmoil has emerged for all elements of the education system, starting from routine learning activities that are usually carried out face-to-face, now turning to face-to-face or virtual. The question is, is this because of the pandemic virus problem or because of the era of open internet access, so education must adapt to a new thing called the industrial revolution 4.0.

even post 4.0 signs have given a signal about the presence of 5.0. Of course this is a joint PR for every element of education (Asha, 2021) .

In this paper, the author sees these two things as momentum that comes together as the pandemic situation and the era of accelerating technological change are unavoidable (Budianingsih & Kustiwi, 2022). The unpreparedness of all aspects of learning activities becomes an obstacle in creating learning effectiveness, both offline and online. Especially at the school level where online learning activities are new things that have been done since the pandemic took place and this still tends to be incomplete in maximizing online learning. Of course, the impact of the quality of education will decrease sharply along with limited facilities and infrastructure. the lack of knowledge of teachers and students in understanding the advantages of technology that is growing from day to day is increasingly felt and one of them utilizes electronic books or digital books as a source of vehicle for student knowledge and it is a part of offline learning (Prayetno, Jamaludin, & Pinem, 2022).

Research findings that discuss online learning readiness using web and android-based LMS show changes in student achievement, teachers can easily manage digital classes to the fullest, starting from communicating with students, presenting material for assessment. teacher creativity can be implemented through a platform in the virtual world pedagogical space (Khoiridah, Ferriswara, & Augustinah, 2020). Students have facilitated their study space well and fun. Teachers in virtual maturity are the main requirement to be able to organize distance learning activities, so that students can respond with the learning process that has been prepared by the teacher to teach and learning activities effectively and optimally (Prayetno et al., 2022).

The online learning process carried out at home has an impact on the quality of the learning process, the assessment process, and graduates. Although online learning has been carried out, problems still occur, for example, an educator is required to be able to master LMS technology and social media to be able to innovate in learning, but from the other side, the facilities and infrastructure that support learning must also be available properly, so that the learning process runs as expected. . Students also experience boredom and longing for meetings with teachers and their peers because on the emotional development side of students, which leads to affective and psychomotor aspects, it is necessary to present direct physical meetings.

The educational discourse tries to answer the changes that occur by seeking the sustainability of the digital arena to become the main media in teaching and learning activities, so that managerialism requires the principles of authority and collaboration. The principle is that in order to be able to organize *blended learning* optimally, the authority in question is that teachers and students have the independence in choosing and sorting teaching materials (sources and materials), flexibility in learning time, the media used (synchronous and asynchronous) (Pillai et al., 2021). Collaborative in the sense that to be able to carry out a responsibility towards students, students are required to continue to interact and establish communication with colleagues, teachers or tutors and other available learning resources. In responding to these changes, educational institutions should have the determination and motivation to build independence in seriousness and responsibility, integration and mutual cooperation which ultimately can achieve the desired harmony towards mental readiness in the aspects of knowledge, attitudes and skills that are needed. efficient, productive and competitive at the level of basic education to higher education (Jamaludin, 2020).

Several massive platforms are used in schools, both primary and tertiary levels, to facilitate the development of students' affective and psychomotor values, which tend to be unclear about learning outcomes and indicators of success. Whereas the character values of students can be translated through these 2 important aspects, not only focusing on cognitive aspects. So that the 3 aspects become a unified whole in shaping the character of the nation's generation, it requires an ideal platform so that these important components are facilitated through an educational platform that has meaning, value, and character (Prayetno et al., 2022).

Offline and online learning or *blended learning* requires the readiness of authority and collaboration from both parties involved, namely teachers and students. In addition, in the e-learning-based learning process, students certainly need supporting facilities and infrastructure so that learning can take place and have better learning quality (Rustiani, 2014). The most important thing in online learning activities is the use of online media in its implementation. Based on the results of Sabran & Sabara's research, the use of new media is an adaptive use because it is able to deliver a series of solutions in teaching and learning methods. Online learning activities prioritize the use of online media in their implementation. There are many *platforms* that can be used during online learning, such as google meet, zoom, webex, and others. However, it turns out that not all schools are able to use the existing online platform. Various reasons arise such as inadequate online facilities and infrastructure in schools, and unsupportive human resources (Sabran & Sabara, 2019).

Several schools in the city of Medan have implemented distance learning (PJJ) which should compare offline and online during the unfinished pandemic period, then the continuity of learning activities continues by utilizing existing technology as a *blended learning* facility. For students at the high school (SMA) level, the learning method used is the WhatsApp group social media, learning management system with the Google Classroom platform (Rustiani, 2014). Through *the WhatsApp group* , the teachers provide instructions regarding learning materials and assignments (*offline* and *online*). Assignments that have been given by the teacher are done in each student's workbook *offline* . Usually the teachers will set a time for submitting assignments to school. While students work on online assignments and collect them directly through the platform that has been provided (Prayetno et al., 2022).

The author's assumption about the term offline learning does not mean total face-to-face, but learning activities carried out outside the network, can use electronic books, television, textbooks or other media that are not connected to the internet or offline. Likewise with PJJ, distance learning is carried out the same as offline but still uses LMS or social media as a means of interaction and communication between teachers and students. Therefore, online, offline and PJJ learning requires application devices that can facilitate student learning activities both online and offline (*blended learning*) (Zurika & Lainnya, 2021).

Based on these online and offline learning activities, it can be seen that the technology used to support learning activities is still very limited. So we need a platform that will make it easier for teachers and students in blended learning activities, in the era of digitalization, teachers actually have the establishment of cyber pedagogy as knowledge and are able to apply smart education that adheres to 4 cutting-edge technology references, then can be tracked through the teacher's activities, because being a teacher in the digital era requires competence in the field of pedagogical technology and learning content (Kemendikbud, 2020).

The author seeks a learning management system platform that can answer the issue of readiness and maturity in the era of blended learning, through a web and android-based application with the name GL 4.0 created to facilitate empty spaces on commercial platforms and massively used, the platform seeks to simplify and facilitate *users* both teachers and students so that their use can run effectively and efficiently so that learning outcomes run optimally.

METHOD RESEARCH

The type of research used is qualitative with a case study approach. This research basically wants to see the application of the web and android-based GL 4.0 Application platform at Gadjah Mada Private High School. During online learning activities switch to offline with a blended learning approach, the school only uses whatsapp group applications and commercial LMS in managing learning activities. As for what makes this research interesting, the students of class X because in fact are students who are new to education at the high school level, the new space for them requires readiness and maturity to be able to follow the curriculum at that level of education. The GL 4.0 application is an LMS platform that is equipped with features. The most significant difference is the presence of offline feature loads that can be accessed anytime and anywhere, as well as a feature in measuring the formation of character values for high school students, so that the role of the teacher should be in shaping values. student character can only be done face-to-face total, through this application can be facilitated. This study uses a qualitative research method with a case study approach, so that the stages in conducting research are as follows: determining the problem, design and research instruments, collecting data, analyzing data and presenting the findings. The final result of this research is to interpret and draw conclusions on the research results. Because this research method uses qualitative methods, after the data is obtained and processed analytically using theories that have been used in previous research, or developing a new theory (Creswell, 2009).

RESULTS AND DISCUSSION

The results of direct observations made by researchers with the identification of problems in the Gajah Mada private high school the use of online learning with LMS is a routine learning activity that is adapting for its *users* , teachers and students. User involvement is not only the main requirement in expertise and managerial teaching and learning activities (KBM) but facilities and infrastructure in schools are tools that must be facilitated so that online learning can run optimally. However, there is still a lack of maximum achievement in student learning, seen from the maturity and skills of teachers in preparing massive LMS media devices used either through Google Class or separate interaction and communication media via WhatsApp. (Sabran & Sabara, 2019).

The analysis of these reasons for optimizing student learning achievement is due to the use of LMS and WhatsApp that tend to be separate even though learning media with learning interactions should be integrated and integrated in one complete component. The teacher prepares the KBM planning from the beginning of the activity, the core and closing are facilitated by the LMS but the interaction media is carried out separately via whatsapp. This condition sometimes experiences problems due to different time levels and miss communication between commands on WhatsApp and LMS media. This has an impact on

students being surprised by the implementation of learning so that students' motivation and enthusiasm for learning are hampered by commands in interaction (Suryati et al., 2021).

Furthermore, the details of these problems appear in online learning activities where in fact teachers and students experience digital stuttering technically and online space management management which tends to have not been fully touched. Either by using conventional platforms such as google met, zoom, webex, google classroom. This finding concludes that human resources are one of the causes of inefficient online learning activities for both teachers and students (Zurika & Lainnya, 2021).

The post-pandemic era of education 4.0 leads to how to design learning that involves the attributes of the 21st century (digitalization) comprehensively. Teachers are forced to have digital skills so that they can be applied to KBM, so that teacher skills in digital, data and human literacy are important components that teachers must have in addition to educating and teaching conventionally, but other components in the 4.0 education era are a necessity that are the main requirements for teachers in technological advances and the era of open access and information.

The situation and conditions of the current era, post-full online events, each school is trying to make new adjustments to the start of the implementation of direct (offline) meeting activities, but this is a new problem for the organizers, because of the new adaptation by combining online/offline or online/offline . This learning is called blended learning by combining both learning systems together with flexible time management. So that the principles of learning shift to the conditions and situations that occur, but do not ignore the theory of student learning outcomes.

Through the application of the GL 4.0 application with blended learning nuances designed by researchers using Android and web-based internet digital media with simpler principles and of course based on learning theory to be able to achieve achievements in aspects of students' knowledge, attitudes and character. Of the 12 teachers who teach in class X, several teachers quickly and easily become capable as users. With an average teacher age of less than 50 years, this proves that the GL 4.0 application can be accessed with the principle of simplicity and convenience. Starting from registration use, planning the preparation of teaching and learning activities from learning resources (teaching materials and enrichment materials), learning models to assessments. Meanwhile, class X students have the ability and grasping power, the majority of which tend to be well-established because students' habits in using *smartphones* are one of the supports in understanding of online learning platforms.

The purpose of this blended learning learning platform technology was created in the classroom walls of teachers and students as users, namely to facilitate the achievement of student learning competencies and assist teachers in carrying out these achievements both online and offline. Although there are obstacles that are often encountered, for example, some students do not have smartphones and laptops to be able to study online. The level of economic stability of students' parents is a logical reason for this. Likewise, schools that tend to not support teacher skills in the use of digital pedagogy technology, schools and skilled teachers are self-taught because there is no special training organized by the school.
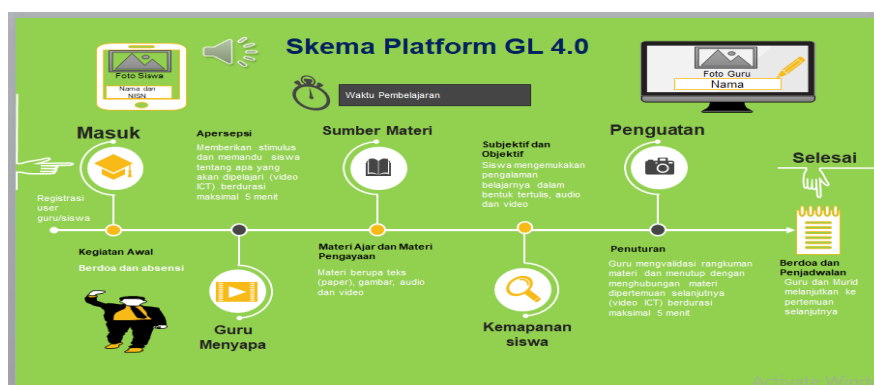
Figure 1. Flowchart of GL 4.0 platform
Source: researcher

The implementation of the use of the GL 4.0 platform describes several activity flows starting from teacher and student registration, initial activities (attendance, prayer and apperception), core activities (teaching material services and enrichment materials), assessment/assessment (student learning experience and evaluation), closing (strengthening the teacher in the narrative of learning achievements and prayer) then continued with the discourse of learning meetings.

Furthermore, it is uploaded and presented in the web-based GL 4.0 platform. provided for teachers because they have complete tools in accessing data, uploading data and downloading data. The device is equipped with student learning sheet project features, the teacher can easily recap each activity starting from attendance, online duration of students in using the application, student interaction and communication, student comments or responses to each video (teacher greeting videos, material videos, video enrichment, closing video or teacher narrative).

Teacher activities in using the GL 4.0 web-based application www.gurulayang.com by registering to fill out a complete teacher profile, creating class and class codes, uploading student names so that attendance can be clicked by students, making teacher greeting videos with a maximum duration of 5 minutes containing class opening, apperception and learning agendas, video material prepared by the teacher in packaging the material that is described in a simple way, a maximum of 10 minutes, enrichment videos that can be integrated with YouTube or other online videos, videos of reinforcement or teacher narratives, namely videos containing learning conclusions and material messages. which is oriented to the values of students' attitudes and behavior.

The Android-based GL 4.0 platform offers several display features, ranging from student registration features, attendance, prayer displays that have been presented automatically by selecting religion and belief, video teacher greeting features, material source features (material videos, pdf or word teaching materials, video enrichment), student stability features (students present their learning experiences in written, audio or video form and there are student practice questions), reinforcement features (teacher's video narrative contains validation of material summaries and closes by connecting the material at the next meeting) and the last feature is closed by prayer (Fassetta, Al-Masri, & Phipps, 2020).

Student activities in using the Android-based GL 4.0 application, namely, downloading the GL 4.0 application on the *playstore* for free and then registering. After

registration, fill in the student's profile completely and then ask the class code from the subject teacher to become a *user* . Then pay attention, listen and click on every command on the platform. Students are asked to provide responses or responses from each session either through typing on the platform but can also provide feedback in offline sessions (face to face in class). The android-based platform is presented with rigidity and regularity, meaning that students cannot skip or skip views, or duplicate smartphone screens. This application was created so that it cannot be duplicated or ignored by opening other applications when the operation of the Gl 4.0 application is in progress but it is done by students so they have to start from the beginning, in that situation the teacher can see the history of student learning activities (teacher-centered online learning control).

Figure 2. Workshop on Using the GL 4.0 Platform
Source: researcher

The results of the evaluation conducted by researchers on the readiness and establishment of teachers and students as GL 4.0 users have weaknesses and strengths; weaknesses include school facilities and infrastructure from supporting resources including internet access devices and computers/smartphones that are not yet optimal, but on the plus side, teachers and students have a good digital knowledge base, the introduction of web and android-based LMS is easy to understand and implement. directly, the ability to be independent to pursue learning media is often something that the teacher must master, the teacher's awareness of lifelong learners can be seen in the enthusiasm and motivation to learn in the use of the GL 4.0 platform. as well as students, online activities forge students' mentality and seriousness in using smartphones as the main media for learning in the era of digital technology advancements. However, on the issue of overall learning achievement from the aspect of knowledge, attitudes and skills of students requiring direct assistance in the assessment, the GL 4.0 application seeks to integrate online and offline into a unified whole and cannot be separated, the role of the teacher cannot be replaced and represented by the platform. The existing digital technology requires the active role of teachers in personal, social, pedagogic and professional competence abilities.

CONCLUSION

Blended learning has become a learning trend after the pandemic and is supported by massive technological developments used in every school, but some principles in learning theory must still be studied and measured in student learning achievements, starting from aspects of knowledge, attitudes and skills. Combining a digital platform with a classroom

wall is something new for teachers so that it requires readiness and skills in designing teaching and learning activities, not only being proficient in using digital platforms but also packaging the platform with optimal effectiveness and achievement of learning in class. GL 4.0 seeks to present features with complete blended learning facilities for both teachers and students, while continuing to prioritize the principles of learning theory by building student learning motivations, student interests and talents, student learning outcomes (knowledge, attitudes and skills) and values. the value of meaningfulness so that the platform can be used optimally in the process of teaching and learning activities. However, this is not only based on the role of the teacher alone, the education delivery system must be able to respond by supporting the implementation of policies, facilities and infrastructure, human resource training based on pedagogy content learning technology, training in information-based learning models and communication technology.

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