

MODEL OF WEB-BASED APPLICATION “GLIDE” AS LEARNING MEDIA AND KNOWLEDGE SHARING TOOL OF TEACHERS IN POST-PANDEMIC ERA

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Received : 22 November 2022, Revised: 14 December 2022, Accepted : 14 December 2022

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ABSTRACT

One of the adaptations that are being carried out in schools in Indonesia in the post-pandemic era is the implementation of online learning models and mixed learning. However, the challenge that arises is that for teachers today more effort is needed to create activities that can be used in this new situation. One application that can accommodate the need to store various types of teaching materials from all teachers in various schools is a web-based application such as Glide. The purpose of this study is to analyze whether the Glide web-based application can be applied as a learning medium and a means of sharing knowledge for teachers in the post-pandemic period. The research method used is qualitative with the development of problem solving methods of linking. The results showed that Glide can be used as a learning medium and a means of sharing knowledge for teachers in the post-pandemic period with some notes. First, the school or teacher must design it so that the contents of the application focus on the collection of teaching materials. Second, the manipulative ability of learning media cannot be obtained through the Glide application. Third, schools need to develop plans so that the implementation of this application can run effectively.

Keywords: *Web-based application, learning media, knowledge sharing, post-pandemic, Glide*

1. Introduction

One of the impacts of the Covid-19 pandemic outbreak on schools is the emergence of online learning and blended learning from kindergarten to high school to prevent transmission of this disease. The learning process, which initially took place in the classroom, had to be transferred online so that students could continue to take part in learning even from home. This incident can be seen as a coin with two sides, namely, there are negative impacts and positive impacts. One of the positive impacts on schools is the acceleration of class digitalization. In the process of digitizing the classroom, the use of technology as a learning medium becomes a necessity. In addition, the use of this technology also has a positive influence on student learning outcomes. Mumahad et al., (2019) stated that technology-based learning facilities have a positive influence on student learning outcomes. Furthermore, Ilmiyah & Sumbawati (2019) state that the use of learning media, such as PowerPoint and Kahoot, influences student learning outcomes through mediators of learning motivation; This means that the use of learning media makes the learning atmosphere more enjoyable and able to attract students' attention. The same thing was conveyed by Solikah (2020), that the use of interactive learning media, namely Quizizz, has a positive influence on student motivation and learning outcomes.

According to Riyana & Susilana (2009), one definition of learning media is "messenger technology that can be utilized for learning purposes." One example of this technology is learning applications. The use of learning applications that are currently widely used in online learning, such as Quizizz, Epic, Rumah Belajar, and Microsoft Teams, shows a trend of increasing searches in Indonesia since the first time this outbreak entered the country, namely in March 2020, as shown in the following image (Google, 2022).

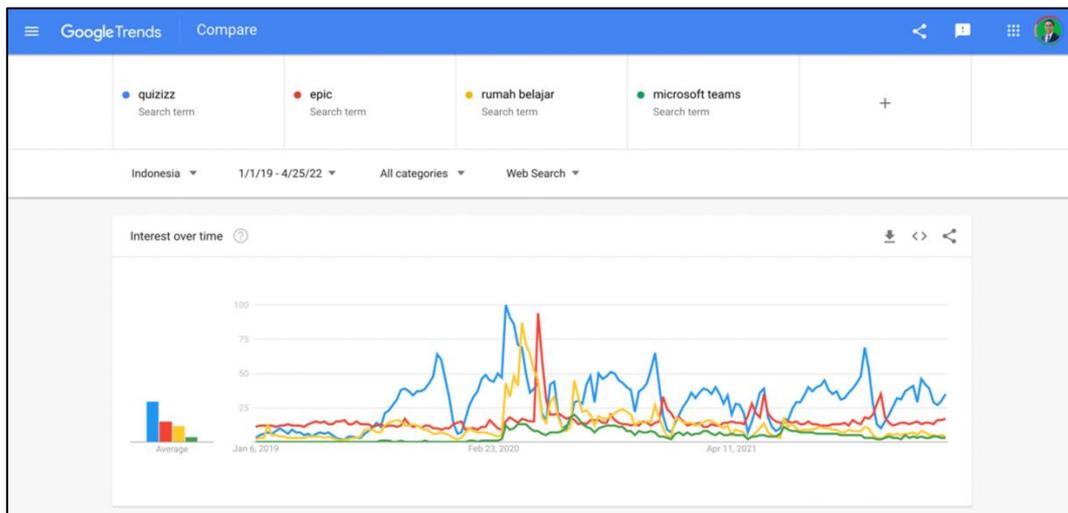


Fig. 1. Web Search Trends, January 1, 2019 to April 25, 2022

In addition, the government also supports the process of digitizing classes in terms of using this learning application. This year, along with the birth of the "Independence Curriculum," the Ministry of Education and Culture also launched a learning application called the "Free Teaching Platform." Quoted from the Merdeka Mengajar Platform Pocket Book, regarding the Ministry of Education and Culture's goal of launching the Merdeka Mengajar platform, it is stated that, "The Merdeka Mengajar Platform is a follow-up step of efforts to transform digital-based education in Indonesia, and is provided to become a driving partner for teachers in teaching, learning, and creating." (Ministry of Education and Culture, n.d.).

One of the adaptations that are being made in schools in Indonesia in the post-pandemic era is the implementation of online learning and blended learning models. One of the challenges teachers are currently experiencing is that it takes more effort to create activities that can be used online. Furthermore, in schools there are various teachers, both experienced and less experienced. Especially if the school is in the form of a network, that is, it has branches in various regions. Of course, this is an opportunity to manage existing knowledge (in the form of teaching) so that it can benefit fellow colleagues, both inside and outside of school. If a school has a learning application that contains a collection of teaching materials from all teachers, the knowledge sharing process will lighten the teacher's burden in making learning activities that can be used online. Quoted from Pasher & Ronen (2011), it is claimed that "the foundation of the norms of behavior and practices of companies that manage knowledge is knowledge sharing," and with knowledge sharing, "time and resources can be saved, and prevent reinventing the wheel [make something that already exists."

One application that can accommodate the need to store various types of teaching materials from all teachers in various schools is Glide. Quoted from the official website, Glide allows its users to be able to create applications and websites without coding by turning Google Sheets, Excel or Airtable into applications that users will like (Glide, n.d.). In addition, based on the author's experience, the process of making applications using Glide is very easy because it is without coding. The focus of the author when using this application is how to make applications that users really need, are easy to use, and look attractive, not on the coding process. The purpose of this research is to analyze whether the Glide web-based application can be applied as a learning medium and a means of knowledge sharing for teachers in the post-pandemic period.

2. Literature review

Learning Media

Based on references to previous studies, learning applications as learning media have a positive role in developing teacher performance. It is stated that the Edmodo learning application [as a learning medium] with the ASSURE learning design can improve teacher performance (Wicaksono, 2017). In addition, similar results were also conveyed in other studies, namely that there was a positive and significant influence on the use of instructional media on the performance of elementary school teachers in a sub-district (Puspita, 2018). In addition, when combined with other factors, such as work motivation

and work environment, learning media will also affect teacher performance in a school (Arfah et al., 2021).

Knowledge Sharing

In addition, related to knowledge sharing, this is also an effective means of improving teacher performance. The first example states that the three main elements in the knowledge management system (knowledge sharing is one of the methods of the knowledge management system), namely People, Process, and Technology, have a positive effect on teacher performance (Long, 2017). Furthermore, one of the conclusions in a proceeding article states that the solution to improve teacher performance in a school is to make it easier to acquire knowledge (Wati & Zakaria, 2018). Similar conclusions were also expressed by Zahra et al., (2020) that knowledge sharing partially has a significant effect on teacher performance.

3. Research Method

The first step in this research method is to link each indicator of learning media and knowledge sharing with the practice of making and using the "Glide" web-based application that has been carried out by researchers. Furthermore, it will also be explained whether the definitions and benefits of learning media and knowledge sharing are in accordance with this Glide web-based application. In his presentation, the author will also provide information on how this application can be applied in schools as a learning medium and a means of sharing knowledge for teachers in this post-pandemic period.

4. Result and Discussion

Learning Media Indicators

According to Pratiwi & Meilani (2018), indicators of learning media include (1) the relevance between the learning media used and teaching materials, (2) the ability of teachers to use learning media, (3) the ease of use of learning media for teachers and students, (4) the availability of learning media used during class learning, and (5) the benefits of using learning media felt by students so that they can improve the learning process. The indicators used in this paper are one of the most relevant, namely the relevance of the learning media used and teaching materials.

Suitability of the Glide Application as a Learning Media

Quoted from the main page of the official website, it is said that Glide is an application that enables its users to create powerful applications and sites without code [or coding] (Glide, Homepage, n.d.). Furthermore, on the same page, it is also stated that the mission of this application is to enable millions of new software developers to create powerful, and beautiful software.

In an educational context, the Glide application is very suitable for use. This is because most of the teaching staff (academic field) and education staff (non-academic field) come from educational backgrounds that are not equipped with coding skills. Therefore, by using the Glide application which does not require coding skills, every member in an educational institution can develop their own application easily.

Regarding learning media, Glide will be very relevant if the application that is made contains a collection of teaching materials, such as student worksheets, digital teaching materials, digital posters, links to digital quizzes, and so on. It should be noted, that Glide also has the potential for applications beyond the realm of education; The functionality and product application possibilities are limitless. If a school does not design Glide to meet academic needs (eg, meet operational, or financial needs) then Glide will not be relevant.

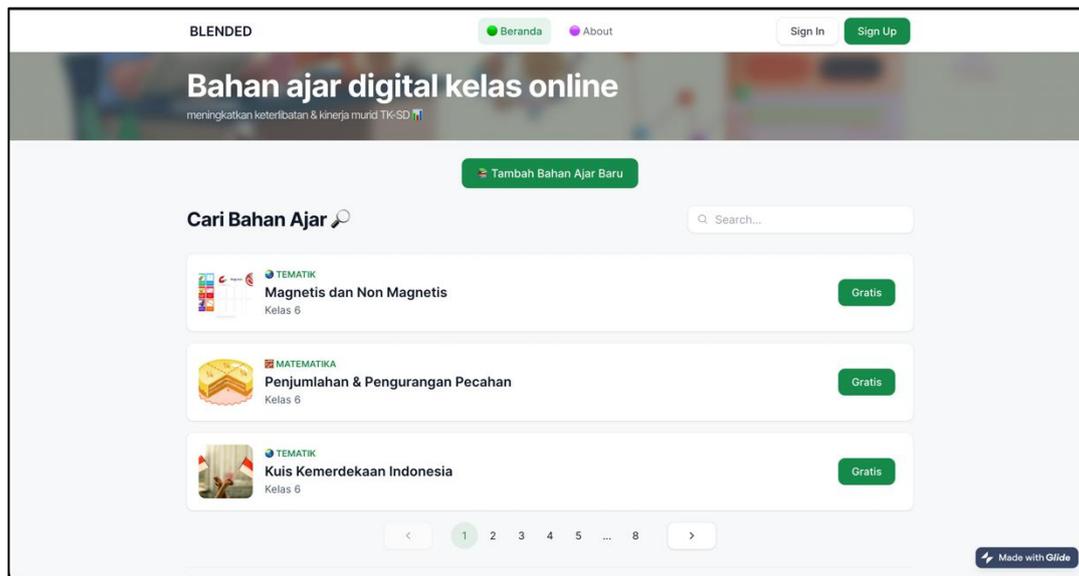


Fig. 2. Teaching Material Collection Application, made by researchers using Glide

In Figure 2, the display of the Glide application is shown, which has been made by researchers by seeking relevance as a learning medium. Within the application, there are digital teaching materials that educators can find, either in the form of links to other platforms (for example, Quizizz, Wordwall, Nearpod, and others) or downloadable teaching materials. This is an example of how to design the Glide application so that it can become a learning medium that is relevant to academic needs in schools.

Knowledge Sharing Indicators

Some indicators of knowledge sharing from Carmeli et al.,(2013), namely: (1) the ability of a leader to motivate his subordinates to share information and knowledge, (2) the ability to solve problems with creative solutions, (3) the ability to absorb information and knowledge, and (4) the ability to convey knowledge obtained from internal and external companies (as cited in Muizu et al., 2018). Taking into account the relevance in this paper, the indicators used are: the ability to absorb information and knowledge.

Suitability of the Glide Application as a Knowledge Sharing Means

The Glide application comes in two main formats, namely Glide Page and Glide App. The basic difference between the two is that the Glide App is made to look and function like a website in general. Meanwhile, the Glide App looks and functions like a smartphone application that users can download from the Play Store (Android) or the App Store (iOS). However, what they both have in common is that they are both web-based; not a native application that must be downloaded from the Play Store or App Store.

Furthermore, Glide Apps not only provide tools for developing software, but also ready-made application templates that other developers can copy. Quoted from the Education Templates page of Glide, the following options are available for developers to copy from the start for free: 1) Coaching & Courses; 2) Community Quizzes; 3) Attendance Tracker; 4) National Parks Guide; 4) Knowledge Portals; 5) Space Mission Guide; 6) Video Playlist Viewer; 7) Attendance Sheet; 8) Weather; 9) Role Models; 10) Daily Drama Fun; 11) Audio Guide, and many more (Glide, Education Templates, n.d.).

This indicates two things. First, the Glide application can be used by all teachers regardless of their device type, be it a laptop or mobile phone, because it can be used on both types of devices; Not only that, both Android and iOS mobile phones can also operate this application. Second, the field of knowledge sharing that can be maximized using lide is very broad; although this paper only emphasizes the collection of teaching materials, it is possible that it could be more than that.

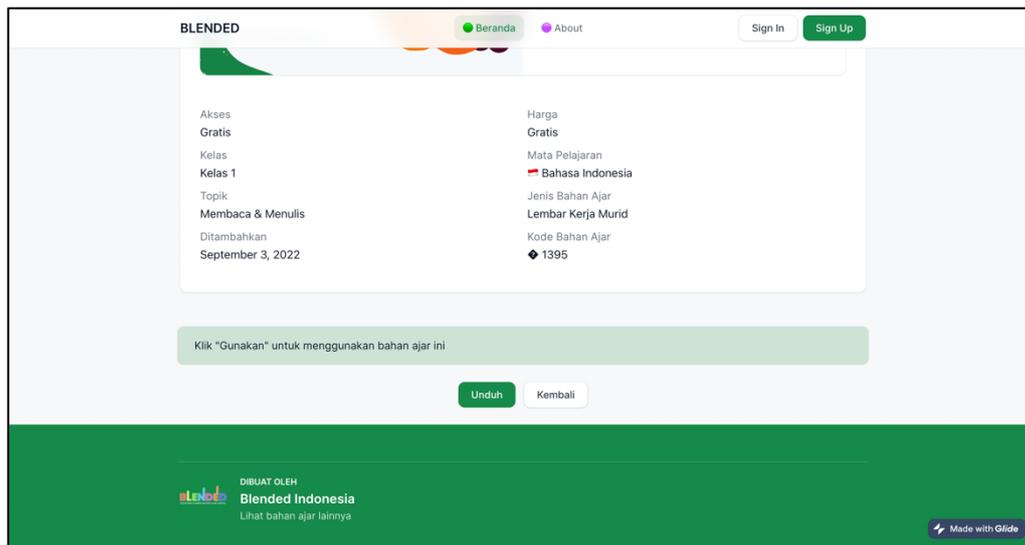


Fig. 3. Glide Application with Features for Uploading Teaching Materials From Users Accompanied by Details of Teaching Materials

Figure 3 shows the knowledge sharing potential of Glide that has been designed by researchers. In the picture, it is shown that the teaching materials were made by Blended Indonesia. This means that users can upload their teaching materials through the platform to be accessed by other users. In addition, teaching materials are also accompanied by details regarding teaching materials, such as access, class, topic, date added, subjects, types of teaching materials, and descriptions of teaching materials. Users can absorb information and knowledge through the details of the teaching materials, and the teaching materials themselves.

Discussion

A. Using the Glide Application as a Learning Media

The discussion in the realm of Glide as a learning medium will be reviewed from the use of the Glide application compared to the definition of learning media, as well as its benefits in the context of learning media. Adapted from AECT (Association for Educational Communications & Technology) (in Sadiman, 2003) in (Fikri, 2018), it is stated that the word 'media' can be interpreted as "a form and channel that can be used in a process of presenting information".

In this case, the Glide application, as previously explained, can display a collection of teaching materials from its users. This allows Glide to act as an information 'channel' that teachers can use to share their knowledge with other teachers. Furthermore, the information that can be shared varies, and can be simplified as 'teaching materials' in digital form. Nurdyansyah & Mutala'liah (2018) revealed that teaching materials consist of (1) core module teaching materials, (2) enrichment module teaching materials, and (3) printed or written teaching materials. Through Glide, these three types of teaching materials can be uploaded and shared with users. Specifically for the third type, namely printed or written teaching materials, of course the documents distributed are digital or softcopies of the printed or written teaching materials.

Regarding the benefits of learning media, Gerlach and Ely, as quoted by Ibrahim et al (2001) in Rusydiyah explain 3 functions of the advantages of learning media, namely as follows:

1. Fixative ability: Learning media has the ability to capture, store and display an object or event again.
2. Manipulative ability: Learning media has the ability to display objects and events in different forms (manipulation) according to their needs.
3. Distributive ability: Learning media can be presented in a wider scope, meaning that it can reach a large number of audiences in one broadcast.

From these three benefits, two benefits can be accommodated with Glide, namely physical and distributive benefits. In terms of fixative abilities, Glide can save teaching materials that have been created by the teacher, save them on the Glide server, and display them again, both for the teacher

himself, and especially for other teachers. Furthermore, in terms of distributive capabilities, through an application that can be accessed by all teachers in Indonesia, at the same time teaching materials in the Glide application can be accessed by many users. However, in manipulative abilities, uploaded teaching materials cannot be displayed again in a different form; only in the form the first time the teaching material is uploaded.

B. Using the Glide Application as a Knowledge Sharing Tool

The discussion in the realm of Glide as a means of knowledge sharing will be reviewed from the relevance of the Glide application compared to the definition of knowledge sharing, as well as its benefits in the context of knowledge sharing. Crossan, Lane, & White (1999), and Ipe (2003) state that knowledge sharing can also be defined as the transfer of knowledge among individuals, groups, teams, departments, and organizations (as cited in Asrar-ul-Haq & Anwar, 2016).

Related to this definition, Glide can fulfill the purpose of knowledge sharing. Through Glide, users can share knowledge with each other. If implemented properly in schools, for example through uploading rules and procedures, then a lot of knowledge transfer will occur through the Glide application. New teachers will be able to access teaching materials from experienced teachers. Teachers in school A can also access teaching materials for teachers in school B. Subject C teachers can see how teachers in subject D design teaching materials. Simply put, the knowledge sharing space will be wide open with Glide.

Furthermore, as previously mentioned, this knowledge sharing is an effective means of improving teacher performance. This means that with the implementation of Glide in schools, it is possible to increase teacher performance. For example, when a new teacher is having difficulty regarding how to teach a topic, he can look at references from teaching materials of experienced teachers. He just needs to use it right away or even improve the quality of existing teaching materials (continuous improvement). Thus, the very time-consuming 'reinventing the wheel' process can be diverted to developing the teacher's performance.

To be able to see the results, many teachers need to upload their teaching materials into the Glide application. If only grade 6 teachers participate, for example, then the Glide application will only contain teaching materials from materials in grade 6. In addition, to have a complete collection of teaching materials, it takes time to achieve them. That is, it takes time for teachers to upload all their teaching materials into this application; this cannot be done at one time. Therefore, schools need to have a plan regarding the implementation of using the Glide application as a means of knowledge sharing for teachers.

5. Conclusion

Based on the discussion above, it is concluded that the Glide application can be used as a learning medium and a knowledge sharing tool for teachers in the post-pandemic period with a few notes. First, schools or teachers must design it so that the contents of the application focus on the collection of teaching materials, not other things (such as operations, finances, and so on). Second, the manipulative ability of learning media cannot be obtained through the Glide application. Third, schools need to develop a plan so that the implementation of this application can run effectively.

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