

School Principal Digital Leadership in the Development of Mobile-Based IPS Learning Media at UNKLAB Airmadidi Junior High School

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ABSTRACT

School principals as leaders in a school have a role important in the development of mobile-based social studies learning media in junior high schools. Unklab Airmadidi Junior High School is one of the Educational Institutions that aim to develop a potency child nation so can compete at the world level. To fulfill these objectives educational institutions, need to develop capable learning media to awaken the interest of students. This study aims for developing android-based IPS learning media on Conditions Geographical Class VIII ASEAN Countries at UNKLAB Airmadidi Junior High School. The research method used in this research is the prototype model. The steps he did, gathering needs designing and prototype evaluation. Mobile-based social studies learning media at UNKLAB Airmadidi Junior High School. This level feasibility and attractiveness product on good criteria, this proven with response students and teachers in good criteria. Based on the results data obtained then mobile-based IPS learning media at UNKLAB Airmadidi Junior High School class VIII can say worthy of implemented in schools.

Keywords: IPS, junior high school, learning media, prototype model, school principal

INTRODUCTION

Education is a human phenomenon that is consciously realized, always concerning students, teachers, communicative pedagogical relationships, the environment, and its supporting institutions, (Dwi Siswoyo, 2011). To win in the era of globalization, we must increase quality education. (E. Dewi, 2019). Knowledge and technology keep going to develop To support human activity in the era of globalization. The fast evolution of technology makes life public become more easy and very useful, esp in Education (Budiman, 2017). Using technology in Education helps educator manage their

Education, (Wavegi & Fatmariza, 2021). The learning process with mobile learning is very different from the learning process in class. The learning process on mobile learning does not require students and teachers to be in the same place and time, while the learning process in the classroom demand students and teachers to be in the same place, and at the same time, movement is limited and the teacher must notice moment explain. this can cause performance, bad students, because they become bored with the learning process and limit their creativity them (Wonggo, D., Olii, D., & Kenap, AA, 2022). Teachers must be able to provide material online and offline so they don't always present material from books. This is possible because learning tools can be obtained not only from books or printed materials but also from the internet, videos, audio, and other media, (Jo Shan Fu & Fu, 2013). Teachers must not only be able to use technology to support learning activities but also fully support the use of the media they create for maximum learning effectiveness (Erkan, 2019). The role of the teacher as a facilitator means that when students have their way of learning, the teacher needs to provide good and appropriate facilities to support the learning process of their students upon request (Novita & Harahap, 2020). All something that works To convey information in something activity learning called learning media. this medium is a tool used For distributing messages from teacher to student To simplify the learning process. (Tafonao, 2018). The objective of the study This is developing learning media-based mobile-to-the-eye social studies lessons on the material Condition Geographical ASEAN Countries with method Prototypes. Benefit study This is students studying social studies can live the present with provided knowledge about problems and people human.

Digital leadership is the ability for using digital technology as a tool to increase effectiveness and efficiency in managing something organization or institution, incl in field education. School principals as a leader in school, have a role important in the development of mobile-based social studies learning media in junior high schools. In the development of mobile-based social studies learning media, School principals need a good understanding of digital technology and capabilities to manage to good. this includes the ability to identify needs and problems in the use of deep digital technology social studies learning, as well ability to look for a solution and choose the right technology for use. Besides that's it, the School principals needs its ability For leading and motivating teachers to use deep digital technology IPS learning. this can be done with give necessary training and guidance, as well as creating an environment conducive to work for teachers to innovate and collaborate in the development of mobile-based IPS learning media. The head school also necessary its ability to monitor and evaluate the use of deep digital technology IPS learning. this covers the ability to measure effectiveness and efficiency using deep digital technology social studies learning, as well ability to make the right decision based on results evaluation. In the framework of developing social studies learning media based on mobile, the head school also necessary to own a good understanding of the IPS curriculum implemented in junior high schools, as well as an understanding of the characteristics of junior high school students and the needs they in IPS learning. With a good understanding of things, the School principals can direct the development of mobile-based social studies learning media to suit with needs and characteristics of students, as well can help increase the effectiveness and efficiency of IPS learning in junior high school.

Although the development of mobile-based social studies learning media in junior high schools can bring great benefits for effectiveness and efficient learning, several possible problems are faced in

the development process. Several possible problems happen related to head digital leadership school, including limitations in digital understanding and skills of the school principals. School principals understand and own limited digital skills. Possible will difficulty in developing mobile-based IPS learning media. The School principals that doesn't use digital technology possible No capable understanding needs the necessary technology for the development of mobile-based IPS learning media. because that's it, the School principals needs to strengthen understanding and skills digital so you can lead the development of mobile-based social studies learning media in a way effective. The problem next is No existing support from the party school. The development of mobile-based social studies learning media in junior high schools requires support from the party school, fine from the School principals, or the teachers involved. Otherwise, if there is support from the party school, then the development of this possible will hamper or not can be held in a manner effective. Because that's it, the School principals need to ensure that all party at school support the development of mobile-based IPS learning media. Problem other is no there are sufficient funds for development. The development of mobile-based IPS learning media requires sufficient funds big. There are no sufficient funds can become an obstacle in the development of this. because that's it, the School principals needs to look for an adequate source of funds for finance development of mobile-based social studies learning media in junior high schools. The problem furthermore is no exists clear policy on the use of digital technology. Using deep digital technology IPS learning is necessarily arranged in a clear policy. otherwise, if there is a clear policy, then using deep digital technology IPS learning is possibly no done effective and efficient. because that's it, the School principals needs to ensure that there is a clear policy in the use of digital technology in junior high school, incl in the development of mobile-based IPS learning media. The problem final is no exists continuous evaluation and improvement. The development of mobile-based social studies learning media in junior high schools is necessarily evaluated in a manner sustainable to know its effectiveness and efficiency. Otherwise, there is evaluation and continuous improvement, then development this is possible no can keep going and walk is good. Because that's it, the School principals needs to ensure that there is continuous evaluation and improvement in the development of mobile-based social studies learning media in junior high schools.

Several solutions that have been conducted by other related researchers school principal digital leadership in the development of mobile-based IPS learning media in junior high schools, including training and development digital skills School principals. Other researchers suggest that School principals need to get training and development digital skills to be able to lead the development of mobile-based social studies learning media in a way effective. Training can be carried out by the institution or experienced experts in the field of digital technology, and the School principals can request help from past teacher experts in the use of digital technology. The next solution is to make a clear policy. Other researchers also suggest that School principals need to make clear policies regarding the use of digital technology in junior high school, incl in the development of mobile-based IPS learning media. The policy can cover guidelines in using digital technology, data management, privacy, security, and other related matters with the use of deep digital technology learning. Another solution is stage work the same party related. Other researchers also suggest that School principals need stage work the same as party related, government area, company technology, or institution-related private sector with the development of digital technology and learning media. Work the same this can help

the head school get source power and support for the development of mobile-based social studies learning media in junior high schools. Another solution that has done like Involve teachers and students in development. Other researchers also suggest that School principals need to involve teachers and students in the development of mobile-based social studies learning media in junior high schools. By involving teachers and students, School principals can obtain useful comments and suggestions in the development of mobile-based IPS learning media. In addition, teachers and students can also be involved increase participation and engagement in the learning process. The final solution is continuous evaluation and improvement. Other researchers suggest that School principals need to do continuous evaluation and improvement to development of mobile-based social studies learning media in junior high schools. Evaluation can be done by collecting data and information about effectiveness and efficiency development, and repair can be done based on the results of the evaluation. this can help the head school increase the quality and successful development of mobile-based social studies learning media in junior high schools.

Novelty research This is an assessment of how School principals can use digital leadership for developing mobile-based social studies learning media in junior high schools. Besides it, the article this is also highlighted the importance of deep digital leadership in facing challenges and opportunities in the digital age, as well as gives solutions and recommendations practical for School principals in leading the development of mobile-based social studies learning media in junior high schools. Besides it, novelty research is the development of mobile-based IPS learning media as one of the strategies for increasing quality learning in junior high school. Importance of deep digital leadership managing development of mobile-based social studies learning media in junior high schools, incl in matter development digital skills, data management, privacy, and security. Influencing factors success development of mobile-based IPS learning media, such as teacher and student participation, support from the party, and evaluation and continuous improvement. Recommendation practical for head school in lead development of mobile-based social studies learning media in junior high schools, such as training and development of digital skills, creating clear policy, involving teachers and students in the development, and doing continuous evaluation and improvement. Thus, the article this gives contribution new in development education in the digital age highlights the role of important head digital leadership school in the development of mobile-based social studies learning media in junior high schools. The aim of this study is lysed role of the lead head school in the development of social studies learning media in junior high school and doing analysis development of learning media in Unklab Airmadidi Junior High School.

METHOD

Tools and materials

1. Research Tools

This study used two devices, namely hardware, and software, namely:

1. Hardware (*Hardware*)

- a. HP Laptop: AMD A9_9420, 4GB RAM, 500GB Hard Drive, VGARadeon R5, Computer Cores 2C+3G, 2.00 GHz.

- b. Modem/ *Wi-Fi*

2. Software (*Software*)

- a. Windows 10 64-bit Operating System
- b. *Smart Apps Creator* (SAC) 3
- c. *Adobe Photoshop* CC 2019

2. Research Materials

- a. Social Sciences Syllabus for Grade VIII Middle School Semester I
- b. RPP Social Studies SMP Class VIII Semester I

The Way of Research

Study This uses the method *Prototype*. Method This has 3 stages, viz collection requirements, design, and evaluation *prototypes*.

1. Collection need

Developers and customers fulfill and define objectives overall, known needs, and description general of components to be needed next.

2. Design

Design is done with fast, and design represents all aspect device's known software, and design This becomes the base of a prototype.

3. Evaluation *Prototype*

Prototype evaluation customer created and used to clarify condition device soft.

Data Analysis

Design device learning Requires relevant data and information for support study this, meanwhile, method or method data collection conducted by researchers is a literature review to obtain information related to moderate problem researched. Through studies librarians, and researchers obtain information or resource from teaching modules, books print, curricula, and various websites that can help researchers develop learning media applications.

RESULTS AND DISCUSSION

Principal Digital Leadership

Mobile-based social studies learning media in junior high schools involves several approaches and strategies that can be used by school principals to lead the development of mobile-based social studies learning media in schools. Some of the approaches and strategies that school principals can take include:

1. Leading digital transformation: School Principals can lead digital transformation in schools by introducing technology that can help improve the quality of learning. School Principals can also build a strong digital culture in schools by involving teachers and students in the development and application of technology.

2. Facilitating the development of digital skills: Principals can provide the necessary training and support to improve the digital skills of teachers and students. This can be done by working with technology experts or related organizations.
3. Making clear policies: Principals need to make clear policies related to the use of technology and the development of mobile-based social studies learning media. This policy should cover security and privacy aspects of student data, as well as evaluation and improvement procedures.
4. Involve teachers and students in development: School Principals can facilitate the participation of teachers and students in the development of mobile-based social studies learning media. This can increase the success of development and produce products that are more effective and follow the needs of students.
5. Encouraging continuous evaluation and improvement: School Principals can encourage continuous evaluation and improvement of the development of social studies-based mobile learning media in schools. This can be done by monitoring the use and effectiveness of instructional media and identifying areas that need improvement.

Mobile social studies learning media in junior high schools effectively and efficiently, so that they can help improve the quality of learning in schools and support the achievement of educational goals.

Mobile-based social studies learning media is one of the strategies that can be used to improve the quality of learning in junior high schools. In the development of social studies learning media based on mobile, technology and mobile devices are used as learning media that can be accessed by students anytime and anywhere. Following are some of the advantages and benefits of developing mobile-based IPS learning media :

1. Enabling access to learning outside the classroom: With the development of mobile-based social studies learning media, students can access learning materials outside the classroom, thus enabling them to study anywhere and anytime.
2. Increase interactivity and student participation: Mobile-based social studies learning media can be designed with various interactive and interesting features to increase student interest and participation in learning.
3. mobile-based social studies learning media can facilitate independent learning, where students can learn according to their own speed and learning style.
4. Facilitate evaluation and improvement: Using technology, learning evaluations can be carried out in real time and can provide fast and accurate feedback for teachers and students to make improvements.
5. Mobile-based social studies learning media can reduce learning costs, especially in terms of procuring textbooks and other learning materials.

Mobile-based social studies learning media can be carried out by considering factors such as the technology used, the content presented, and the use of social media as a learning platform. In developing mobile-based social studies learning media, school principals can play an important role in

leading digital transformation and ensuring the development of effective and efficient mobile-based learning media in junior high schools.

Digital leadership is very important in managing the development of mobile-based IPS learning media in junior high schools. As school leaders, school principals must have adequate digital knowledge and skills to lead digital transformation and develop effective and safe mobile-based learning media. The following is the importance of digital leadership in managing the development of mobile-based IPS learning media in junior high schools:

1. Development of digital skills: Principals must ensure that teachers and staff in schools have sufficient digital skills to develop and manage mobile social studies learning media. This will help ensure the appropriate and effective use of technology in learning.
2. Mobile-based social studies learning media involves collecting and managing student data. The school principal must ensure that student data is kept confidential and managed securely so that it is not misused or misused by irresponsible parties.
3. Privacy and security: Principals must ensure that mobile-based social studies learning media developed in schools do not violate students' privacy or threaten their security. This can be done by ensuring that the platform used for the development of mobile-based IPS learning media has adequate security features and meets privacy standards.
4. Ensuring the availability and reliability of technology: Principals must ensure that the technology used for the development of mobile social studies-based learning media is available and reliable. This includes a stable and fast internet network, adequate mobile devices, and reliable software or applications for learning.

In managing the development of mobile-based social studies learning media in junior high schools, school principals must ensure that the use of technology and mobile-based learning media is carried out safely and effectively. Therefore, school principals must have adequate digital knowledge and skills and prioritize the privacy and security of students and their data.

Several factors can influence the successful development of mobile-based social studies learning media in junior high schools, including:

1. Participation of teachers and students: The active participation of teachers and students is very important in the development of mobile-based social studies learning media. Teachers must have sufficient digital skills and knowledge to develop and use these learning media, as well as involve students in the learning process that uses technology. Students also need to be encouraged to actively participate in the use of mobile-based learning media, such as by providing feedback and contributing to content development.
2. Support from related parties: The successful development of mobile-based social studies learning media is also influenced by support from related parties, such as parents, schools, and related government agencies. This support can be in the form of financial support, technical support, or moral support that will motivate and support the development of mobile-based learning media.
3. Continuous evaluation and improvement: Continuous evaluation and improvement are very important to ensure the successful development of mobile social studies-based learning media. Principals and teachers must periodically evaluate learning media that have been developed and

repair or redevelop teaching materials that are not effective. This will help improve the quality of mobile-based IPS learning media used by students.

4. Selection of the right platform: Selection of the right platform or application is also very important in the development of mobile social studies-based learning media. The selected platform or application must be easy for teachers and students to use and have adequate features to support the learning process. In addition, the platform or application must also meet the standard.

Collection of Needs

At stage this, the researcher creates application communication learning interactive based on research and interviews direct. User application addressed for student Class VIII Unklab Airmadidi junior high schools, however in a manner general available for public broad.

Moment creates learning media in this case, the researcher uses the application *Flow Chart* learning, application *storyboards* learning, and materials to create learning applications.

1. Application *Flow Chart* learning

Figure 1 shows *Flow Chart* from planning application learning.

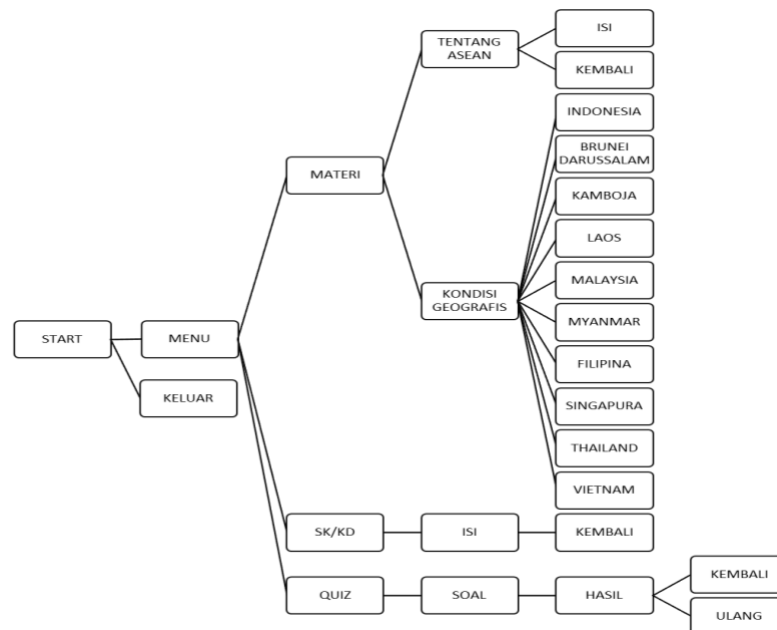


Figure 1. *Flow Chart*

2. The materials needed

At this stage, all the materials are collected according to the needs that are being worked on. These materials include pictures, teaching materials, and so on. The following is from collecting materials for making *mobile learning* and the material presented. See table 1.

Table 1. Materials needed

Picture	Type	Information
	Picture	Download _ from www.google.com
	Picture	Download _ from www.google.com
	Picture	Download _ from www.google.com
	Picture	Download _ from www.google.com
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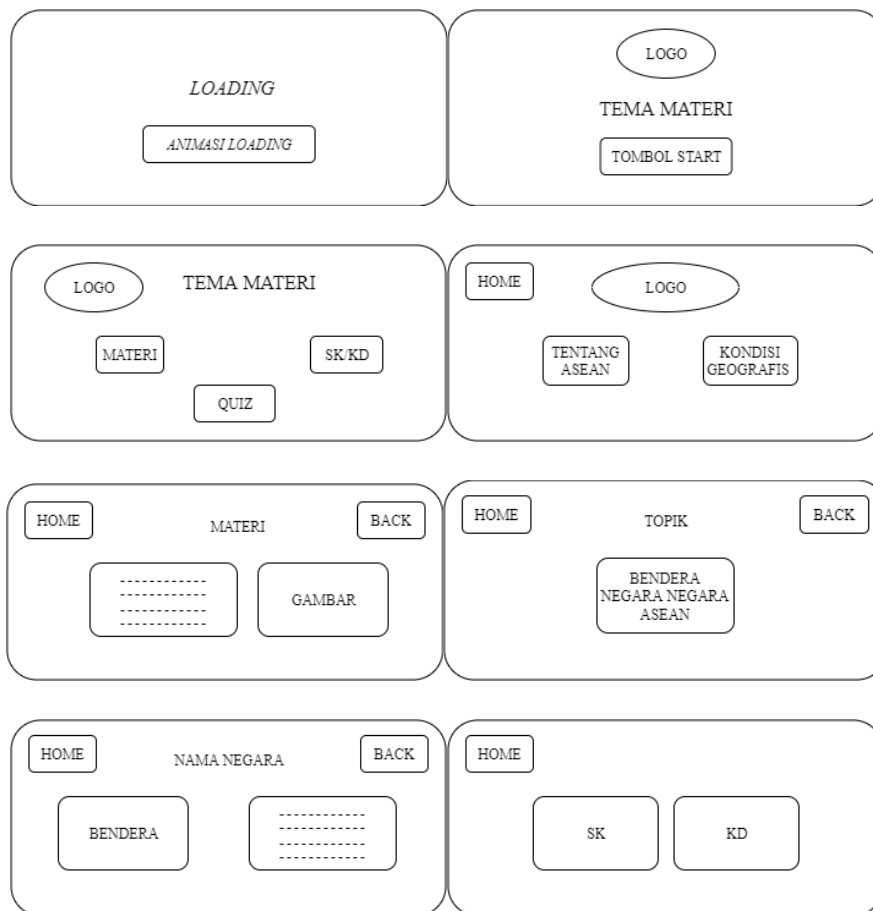
Download _ from
www.google.com

Picture

Design

On point In this case, the process of creating and editing media will be used on mobile learning where all material For making like images, icons, and as well combined teaching materials become one project arrived in the form of the apk format is started from storyboarding. Figure 2. Shows design application *storyboards*.

a. *Storyboards* app learning



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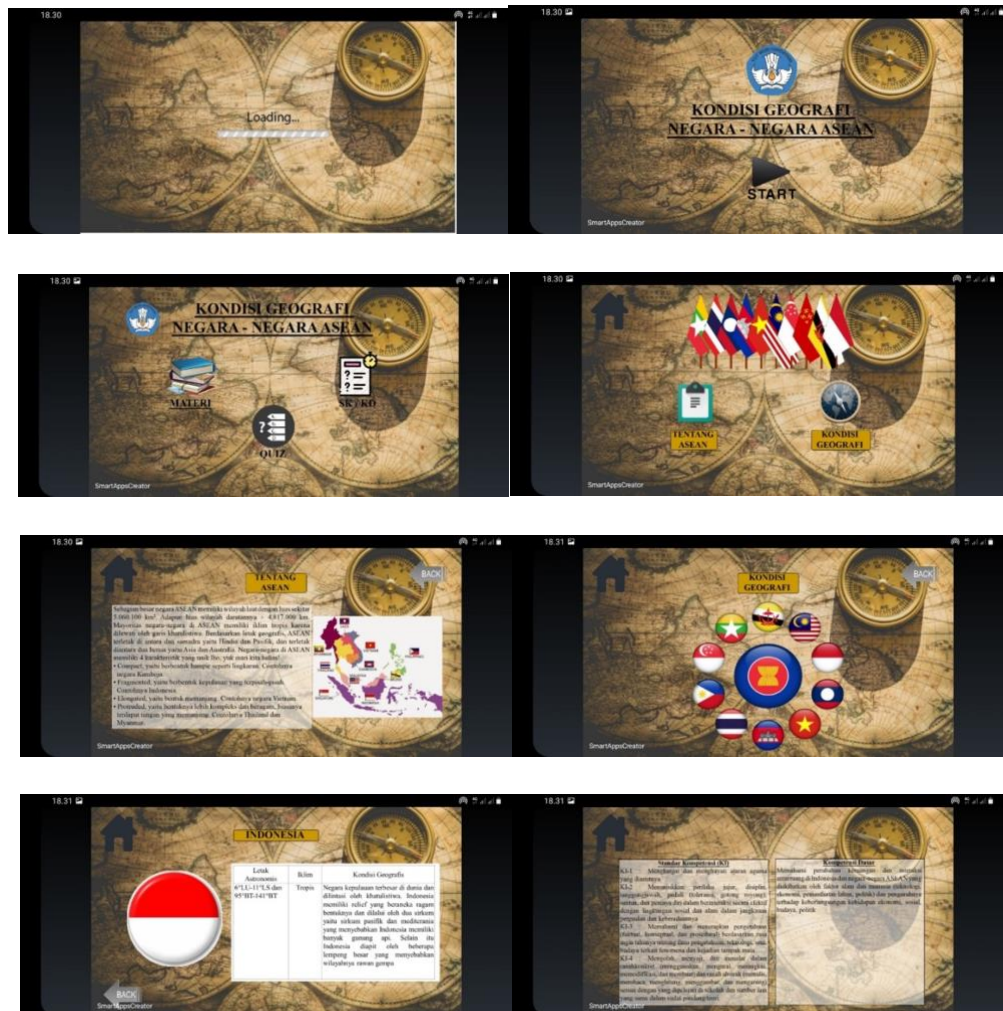


Figure 2. Application Story Board

Stage This covers planning to start from the appearance beginning and come to view the end from application learning. Figure 2. Shows design application *storyboards*.

b. Design using *Smart Apps Creator (SAC) 3*

The design of this learning media application *uses the Smart Apps Creator SAC 3* application. Figure 3, display result of the application during the *storyboard* design process.



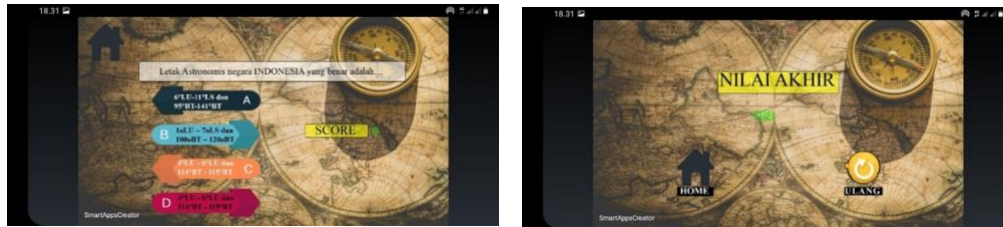


Figure 3. Results Appearance Application

Study results show that head digital leadership school is very important in the development of mobile-based social studies learning media in junior high schools. The school principals must own adequate digital knowledge and skills, as well capable manage the use of technology in the learning process. Besides that's it, School principals should to ensure that the use of technology done with notice of privacy and security of student data. this study gives contribution to head digital leadership strategy development effective school for the development of mobile-based social studies learning media in junior high schools. This study can also become a reference for head schools, teachers, and takers policies in the field of education for optimizing the use of technology in the process of learning and improving quality education in junior high school.

CONCLUSION

The conclusion from this study is that digital leadership is very important in the development of mobile-based social studies learning media in junior high schools. The principal plays a very crucial role in managing the use of technology in the learning process in junior high schools. School principals must have sufficient digital knowledge and skills to be able to manage the use of technology effectively. In addition, the principal must also ensure that the use of technology is carried out with due regard to the privacy and security of student data. Teacher and student participation, support from related parties, and continuous evaluation and improvement are also important factors influencing the successful development of mobile-based social studies learning media in junior high schools. The study also concludes that applications that have been developed and produced can be used as additional learning media for Unklab Airmadi junior high schools in class VIII regarding the I PS subject about conditions geography of ASEAN Countries in addition to books and study at school. Study This gives contribution to School principals digital leadership strategy development effective for the development of mobile-based social studies learning media in junior high schools. With an effective digital leadership strategy, it is hoped the use of technology in the learning process can be managed with good and improved quality education in junior high school.

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