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Ayu Apps Empowers the Sustainability of Teaching and Learning

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Abstract

For today's generation to succeed in the twenty-first century, they will need to be highly competitive and effective in mastering a wide range of topics. The Education 4.0 program has as its primary goal the rapid development of new technological tools. Because of this, the students of today should not be instructed solely through memorization exercises and rote learning; rather, they should embrace digital learning. This study's objective is to evaluate how the Youtuber Academy application (also known as the AYU Apps) assists students in developing their capabilities for self-directed learning and acts as a reference for both instructors and parents. In order to evaluate how useful, the AYU Apps was designed, a survey approach was employed, and the sample population consisted of 202 students from West Malaysia. The efficiency of this AYU Apps is evaluated by the level of student agreement (98.7 percent), which states that the AYU Apps is ideal for the development of autonomous learning abilities and can be easily accessed by students, parents, and instructors. This level of agreement is used to measure the efficacy of this AYU Apps.

Keywords: AYU Apps, Technology, Self-Learning Skills, Easily Accessible

Introduction

In the context of this research, the term "digital learning" refers to the process of methodically acquiring knowledge by making efficient use of any sort of technological device, such as a smartphone, tablet, computer, or any other device that can be used to access information anywhere and at any time (Gikas & Grant, 2013). In their recent article, Sousa and Rocha (2019) address digital learning from two distinct vantage points. At first look, it appears that they are referring to a notion that may be characterized as an unplanned and spontaneous learning process that makes use of modern equipment. In the second viewpoint, they believe online education is a deliberate activity that occurs whenever an institution makes a certain program available.

In addition, according to Widowo and Kadarwati (2013), education is a constructive process that helps pupils enhance their creative thinking. Online learning is defined as a knowledge transfer experience that makes use of video, audio, image, and text communication and software that is enabled by the internet network, as stated by (Basilia and Kvavadze, 2020). The preparation of both instructors and students is an essential component of successful online education.

Students are more likely to engage in meaningful learning and retain information when the classroom atmosphere is one that is interactive, engaging, and fun thanks to digital learning. According to Beetham and Sharpe (2013), the primary advantage of digital learning is that it solves challenges associated with learning and makes learning tasks easier to complete. In the 21st century, where learning orientation not only increases academic talents but also the ability to study autonomously (Alwan, 2017; Tang & Chaw, 2016), one more advantage is that it makes learning simpler and more applicable. This is especially important in the context of making learning easier and more applicable.

On the other side, digital education is also a support system for the Industrial Revolution (IR). The advancement of human civilization includes the development of IR. Because of this, the Malaysian Ministry of Education (MOE) makes it a priority to design education programs that can produce individuals who are literate in information and communication technology (ICT), skilled, knowledgeable, and moral. In order to strengthen the educational system, several different policies and approaches have been implemented.

Targeting all Primary Schools is one of the Ministry of Education's measures in the direction of reaching IR 4.0 as part of this endeavor. It is necessary for schools and secondary schools to have extensive hardware and software, as well as a comprehensive and accommodating infrastructure. Considering this, the Ministry of Education and Culture will provide proper training in the utilization of information and communications technology (ICT) in effective teaching and learning by way of courses or workshops that will be held for employees and teachers (Mahpuz et al., 2020).

In addition, Industrial Revolution 4.0 not only brings students to gain essential skills and knowledge, but also encourages students to identify the source of those skills and knowledge, and for those skills and knowledge to be quantified based on the statistics of the data that was obtained. According to Khalid (2019), throughout the learning process, instructors play the role of facilitators, while students take on the role of peers who collaborate with one another.

The process of passing through 21st Century learning in the age of Industrial Revolution 4.0 demands educators who work as facilitators and guides to students in order to assist students in confronting the 21st-century of learning in the era of Industrial Revolution 4.0 (Stanlee & Swanto, 2021). A change in instructional strategies should be brought into alignment with process learning. Adaptive learning replaces the traditional model of instruction, which centers on the teacher. According to Mansor et al.'s research from 2020, for students to realize their own objectives, they must remain engaged in the entirety of the educational experience.

In terms of the order, the Covid-19 pandemic has had a major impact on all sectors including education. The closure of schools by the MOE has caused a new norm in the education system. Online learning has been implemented to ensure that students do not drop out of education across the country. In connection with that, Digital learning has been introduced and applied by all teachers and students. This shows that the use of technology is a priority for educators around the world. In addition, the Prime Minister of Malaysia also advised educators to make online teaching a step forward by using online applications such as Google Classroom, YouTube, and so on (Abdul Lasi, 2021).

In accordance with the development of technology in today's digital era, software applications (applications) are widely used in the digital media environment (Light et al., 2018). This web-based software application platform (application) has become increasingly popular among Internet users. It is a site of transformation that cuts across many domains including the field of education. One of the telecommunications tools is using the Android operating system, which can develop mobile learning systems such as mobile phones, laptops, PDAs, and tablets in teaching and learning. The need to obtain this information has brought a change in strategy in the learning process (Efriyanti & Annas, 2020). By using software applications (applications), learning materials can be accessed by students at any time and place. In addition, it makes the process of teaching and learning easier, interesting to learn (Hendrawan, 2018; Martha et al., 2018) and provides an active learning experience for students (Wijaya et al., 2021).

Methodology

This section will discuss the methods used in the process of building software to develop the AYU Apps. A survey method was used involving a total of 202 respondents among teachers from all over Malaysia to see the perception of students related to the AYU Apps that had been developed. Data has been collected using a 5-point scale questionnaire method. This AYU Apps development uses the ADDIE model. A summary of the data analysis is shown in Table 1.1

Table 1.1
Analysis Data Summary

No.	Research Question	Study Participants	Method used	Instrument	Data analysis techniques
1	What are the students' perceptions related to the development of AYU Apps to improve self-learning?	202 students	Survey	5-point scale questionnaire	Descriptive statistics

Findings

The AYU Apps was developed to promote the teaching and learning process and support 21st-century education. This application is built to facilitate the teaching process for teachers to improve student understanding. Students can use this application as a reference for their own

learning sessions in the comfort of their homes. Table 1 shows the percentage of students agreeing to each Item in the Evaluation of Effectiveness in AYU Apps development.

Table 1.2
Students Agree to Each Item in the Evaluation of Effectiveness in AYU Apps Development.

No Item		Student Perception Percentage
1	The attractiveness of the clear and simple front page made me interested in using the AYU Apps in learning activities	98.5%
2	Using the AYU Apps through a smartphone is easier	98.5%
3	This application can be used without the help of others	98.0%
4	The application takes a short time to use	98.5%
5	Users are free to explore information on the AYU Application	98.1%
6	Users are free to exit the application at any time	99.1%
7	The application is user-friendly and easy to access	99.0%
8	Learning to use this app is fun	99.1%
9	Information is presented in a simple and attractive form	99.0%
10	This application provides the required knowledge information quickly	98.1%
11	This application is suitable for the use of educational materials	99.4%
12	This application helps students learn by themselves	99.6%

Based on Table 1.2, the results of the evaluation of the effectiveness of the AYU Apps development show a very high level of satisfaction among students. The students agree that every element in this application offers exceptional benefits and appeal. They feel satisfied with the application's front page, which is attractive, easy to understand, and supports learning activities well (98.5%). In addition, the use of this application is easier and more practical through smartphones (98.5%). The AYU Apps helps reduce the user's time to search for lesson videos or online classes directly, because the videos searched for have been arranged according to the desired syllabus and chapters found in the DSKP (98.0%). Using this application is very easy without anyone's help (98.0%). In addition, the time required to use this application is very short (98.5%), and users are free to explore the information in the application (98.1%). The AYU application alsohas a friendly and easily accessible user interface (99.0%), and the videos in it are easily accessible to the user's phone (99.1%). The information presented in this application is presented in a way that is interesting and easy to understand (99.0%), so this application is very helpful in acquiring knowledge quickly (98.1%). In addition, this application is also very suitable for use as a learning material (99.4%) and helps students to learn independently (99.6%).

Discussion

Based on the results of the evaluation of the effectiveness of the development of the AYU Apps, it can be concluded that the students are very satisfied with the quality and benefits offered by this application. From all the evaluated elements, the AYU Apps received an average score of 98%, indicating that the application provides a good and beneficial learning experience for users.

The students feel that this application is very accessible and can be used without help from teachers or parents. Therefore, the videos available in this application are very easy to reach through a smartphone. This application also provides information in an interesting and easy-to-understand manner to help students acquire knowledge quickly.

Not only that, the AYU Apps is an effective application in helping students learn independently in an easy and pleasant way. This application helps save time and provides significant benefits to users.

Conclusion

In conclusion, Teaching and Learning (T&L) that can be accessed regardless of time and place is very necessary in the 21st-century education system. This can be realized with the AYU Apps where there are various training and knowledge-sharing sessions held online as a result of the collaboration of more than 1,400 active education YouTubers consisting of teachers certified under the Malaysian Ministry of Education (MOE). The teachers are volunteers from all over the country under the umbrella of the YouTuber Academy Community, initiative by eDidik Malaysia and Kelab Guru Malaysia.

Youtuber Academy teachers are teachers involved in their respective fields who have skills and strive to produce quality videos. Apart from this application being easily accessible automatically, the videos produced are according to the latest syllabus and are constantly updated. Therefore, the use of this AYU Apps can improve the ability of teachers in the process of delivering information in their T&L. This is in line with a study by Mensah (2019) who found that technology is the main basis as a teaching aid today. In addition, the AYU Application can improve the self-understanding of users, namely among students and parents in guiding and helping their children understand the learning content based on the DSKP provided by the Ministry of Education.

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