Research Article

AYU APPS EMPOWERS THE TEACHING AND LEARNING OF SUSTAINABILITY

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Abstract: *Today generations must be extremely competitive and competent in a wide variety of subjects in order to be successful in the twenty-first century. The proliferation of technology is the focus of the Education 4.0 initiative. Therefore, students of today need to embrace digital learning rather than just being taught via memorization exercises and rote learning. The purpose of this research is to investigate the ways in which the Akademi Youtuber application (AYU applications) assists students in developing their self-directed learning abilities and serves as a reference for both educators and parents. The survey method uses a sample of 202 students from West Malaysia to assess the effectiveness of the Academy Youtuber application that was developed. It was determined, on the basis of the degree of agreement among the stiudents (98.7 percent), that AYU applications is appropriate for the development of self-learning abilities and can be readily accessible by students, parents, and instructors.*

Keywords: AYU application, technologies, self-learning skills, easily accessed

1.   INTRODUCTION

Digital learning in this study covers a systematic process of acquiring knowledge by making effective use of any type of technological devices like smartphones, tablets, computers, or others that can be used to access information anywhere and anytime (Gikas & Grant,2013). Sousa and Rocha (2019) discussed digital learning from two views. In the first view, they referred to a theory that defined as an unplanned and spontaneous process of learning using technological devices. On the second view, they considered digital learning as a planned process when organisation set up a specific course.

Furthermore, learning is a process build to develop students' creative thinking (Widowo & Kadarwati, 2013). According to Basilaia & Kvavadze (2020), online learning is the experience of

knowledge transfer using video, audio, images, text communication and software supported by internet networks. The essential factor in online learning is the readiness of educators and students.

Digital based learning can provide an interesting and enjoyable learning atmosphere, so students are active and obtain meaningful messages. The main benefits of digital learning is overcoming learning problems and facilitating learning activities (Beetham & Sharpe, 2013). Another benefit is to make learning easier and more practical, especially in the 21st century, in which learning orientation does not only develop academic abilities, but also independent learning abilities (Alwan, 2017; Tang & Chaw, 2016).

On the other hand, digital learning also support Industrial Revolution (IR). IR is a form of progress in human civilization. Because of this, the Malaysian Ministry of Education (MOE) always strives to provide educational development programs that can produce citizens who are Information Communication Technology (ICT) literate, skilled, knowledgeable and of noble character. Various policies and strategies have been introduced to empower the education system.

In order that, among the MOE's initiatives in achieving IR 4.0 is targeting all Elementary Schools and Secondary School to have comprehensive equipment, software, and complete the conducive infrastructure. In line with that, the MOE will handle courses or workshops for teachers and staff so that they get adequate training related to the use of ICT in effective teaching and learning. *(*Mahpuz et al., 2020)

In addition, Industry Revolution 4.0, not only encourages students to learn the necessary skills and knowledge, but also to identify the source of those skills and knowledge, and measured based on the statistics of the data obtained. In the learning process, the teacher acts as a facilitator and the students as peers cooperate with each other in the learning process (Khalid, 2019).

The process of going through 21st Century learning in the era of Industrial Revolution 4.0 requires educators who act as facilitators and guides to students to help students in facing 21st century learning in the era of Industrial Revolution 4.0 *(*Stanlee & Swanto (2021). The shift in the learning process needs to be in line with the teaching method. The learning process changes from teacher-centered to adaptive learning. To achieve students' personal goals, they need to be active participants throughout the learning process (Mansor et al., 2020)

On the order hand, the Covid-19 pandemic has had a huge 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 non-dropout among students in 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 (apps) are widely used in the digital media environment (Light et al., 2018). The platform of this web-based software applications (apps) has become increasingly popular among internet users. It is a transformational site that crosses many domains including the field of education. One of the telecommunications tools is to use the android operating system which is capable of developing mobile learning systems such as mobile phones, laptops, PDAs and tablet 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 (apps), learning materials can be accessed by students at any time and place. In addition, it makes the teaching and learning delivery process easier, more interesting to

learn (Hendrawan, 2018; Martha et al.,2018) and provide an active learning experience to students (Wijaya et al., 2021).

2. METHOD

This section will discuss the methods used in the process of designing the software used to develop the Academy Youtuber application. This survey method uses a sample of 202 students from West Malaysia to assess the effectiveness of the Academy Youtuber application that was developed. The data was collected through questionnaire. This Academy Youtuber application development methodology uses the ADDIE model.

3. FINDINGS

The Academy Youtuber application was developed to encourage the teaching and learning process and support 21st century education. This application was built to facilitate the teacher's teaching process in improving student understanding. Students can used this application as a reference for self learning at home. Table 1 shows the percentage of student agreement for each item in the evaluation of the effectiveness of Academy Youtuber application development.

Table 1. Percentage of Student Agreement for Each Item in the Evaluation of the Effectiveness of AYU Application Development

Bil	Item	Percentage of Student Agreement
1	The attractive, clear and simple front page made me interested in using AYU apps in my learning activities.	98.5%
2	AYU apps through mobile phones easy to use.	98.5%
3	This application can be used without any help from other people.	98.0%
4	This application takes a short time to use.	98.5%
5	Users are free to explore information in AYU apps.	98.1%
6	Users are free to exit the application at any time.	99.1%
7	The application is user-friendly and easily accessed.	99.0%
8	Learning to use this app is fun.	99.1%
9	Information is presented in a simple and attractive style.	99.0%
10	This application provides the necessary knowledge quickly.	98.1%
11	This application is suitable for use as a learning material.	99.4%
12	This application helps students' self-learning.	99.6%

Based on the percentage of student agreement for each Item in the evaluation of the effectiveness of AYU Application Development, it is clearly seen that the satisfaction with the use of AYU apps among students is welcoming. The items and the percentage of students agreement were the attractive, clear and simple front page made me interested in using AYU apps in my learning activities (98.5%), AYU apps through mobile phones easy to use (98.5%), the Youtuber Academy application saves users time to search for learning videos or live classes directly because users only need to select the video according to the syllabus they want to search for and then choose the arrangement of themes or chapters according to the measurements in DSKP, this application can be used without any help from other people (98.0%), this application takes a short time to use (98.5%), users are free to explore information in AYU apps (98.1%), the application is user-friendly and easily accessed (99.0%). The Youtuber Academy application is easy to use because the videos found in this application are easy to download into the user's smartphone. Users only need to click on the menu

options provided according to their needs. In addition, this application is suitable for all types of smartphones that use android software. Learning to use this app is fun (99.1%), information is presented in a simple and attractive style (99.0%), this application provides the necessary knowledge quickly (98.1%), this application is suitable for use as a learning material (99.4%) and this application helps students' self-learning (99.6%).

4.   DISCUSSION AND CONCLUSION

The 21st Century education system emphasizes teaching that can be accessed at all times regardless of time and place. Therefore, this application features the collaboration of more than 1,400 active education YouTubers consisting of teachers who are certified under the Malaysian Ministry of Education (KPM). These teachers are volunteers from all over the country under the umbrella of the YouTuber Academy Community initiative of eDidik Malaysia and the Malaysian Teachers Club. The videos are produced according to the latest measurements and are always updated. The application is also easily accessible automatically. There are various training and knowledge sharing sessions held online by the Youtuber Academy which have been attended by teachers involved in their respective fields in an effort to improve their skills in producing quality videos. Hence, the use of this Youtuber Academy Application can indirectly improve the ability of teachers in the process of delivering information, improve self-understanding during revision for users among students and guidance to other users, i.e. Parents, in helping them understand the learning content based on the DSKP provided.

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