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Android-based AKSI application usage to improve achievements in accounting learning

Abstract. The purpose of this mini-research is to find out the use of learning media for Android-based Acquired Knowledge Systems Inc. (AKSI) applications can improve accounting learning achievement in students of class XII Accounting class of Sekolah Menengah Kejuruan University, Post-secondary (AKL 1 SMK N 1 Kebumen). This research is qualitative. Data collection techniques include interviews, observation, and documentation analysis. The data analysis technique used qualitative descriptive analysis, including data collection, data reduction, data presentation, and conclusion drawing. The study findings are as follows. 1) The teachers' observations about using learning media for Android-based AKSI applications in learning activities indicate that they have implemented the learning process well. 2) The results of interviews with students have shown that: a) the learning process using the Android-based AKSI application media has been implemented well; b) student motivation has increased so that students feel their value increases. 3) The results of the analysis of the value documentation indicate an increase in accounting learning achievement by students, namely, a) before the use of teaching media Android-based AKSI applications are an average of class 66 with students who complete grades above Minimum Completeness Criteria (MCC) 16, b) after the use of learning media android-based AKSI Applications the average quality achieved by 75 with students who scored above MCC 23, then increased again the grade average value to 79 with students who achieved grades above MCC to 26.

Keywords: Accounting; Learning Media; Android; Learning Achievement; Minimum Completeness Criteria; Android-based Acquired Knowledge Systems Inc. (AKSI)

JEL Classification: A12; M10; F14

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1. Introduction

Information technology has been inherent in humans in the era of globalization as it is today. Globalized information technology can cover all aspects of life. In education, information technology has many roles, one of which is as a medium of learning (Visvizi & Daniela, 2019). In the Industrial Revolution Era 4.0 today, we need to embrace technology to make learning interesting. When students are involved and interested, that's where learning takes place intensively. For this reason, teachers should use learning media that are interesting, innovative, and useful. One of the android-based learning media is the AKSI application (Asah Akuntansi).

SMK Negeri 1 Kebumen is one of the schools that permit students to bring mobile phones, smartphones, and school. State Vocational School 1 Kebumen is also equipped with an internet network that all students and teachers can use primarily to look for sources of material references from the internet. Some students use smartphones when learning not to find temporal concerns open social media or chat with friends. In SMK Negeri 1 Kebumen, there is no technology-based learning media that is used (Rekh & Chandy, 2020; Singh et al., 2022). Students only accept material delivered by the teacher and the practice exercise handouts. The teacher also still teaches in a conventional manner, which often causes students to become bored and prefer to play with smartphones (Sudarmilah & Maelani, 2021).

Based on observations made in class XII Accounting 1, 33 out of 34 students or 97% of students are smartphone users, namely android. They often spend time playing smartphones to open social media applications such as Facebook, Instagram, WhatsApp, Line, and others. Not many students have educational-based applications to support their learning process. Many students still use laptops and user manuals to keep learning in school. Also, it obtained student accounting learning outcomes that tend to be low, seen from Table 1.

Table 1:

The Result of Accounting Daily Test Values of SMK N 1 Kebumen AKL Class XII 1 the Year 2019/2020

Class	Values	Total students
XII AKL 1	≥ 75	18
	< 75	16

Source: List of Daily Test Scores for odd semester students of SMK N 1 Kebumen AKL class XII 1 the Year 2019/2020

From the data table above, the number of students who haven't reached the MCC (Criteria for Completeness Learning) that has been set is 75 more than students who have earned the MCC. The above phenomenon is created to use accounting learning media that are innovative, creative, interactive, and can be used anywhere and anytime. One of them is the use of learning media for Android-based AKSI Applications. By using the Android-based AKSI Application media, it is expected that accounting learning will become more exciting and enjoyable while at the same time increasing knowledge and increasing students' learning achievement in accounting.

Learning in the 21st century will be a contested terrain as our society strives toward post-industrial forms of knowledge acquisition and production without overcoming the educational contradictions and failings of the industrial age (Spiteri, & Chang Rundgren, 2020). Educational reformers suggest that the use of instructional media in an era of new technological advancements will radically change what people learn, how they learn, and where they know (Wisniewski & Torous, 2020).

Media should motivate and attract students' interest in learning and visualize abstract material being taught to facilitate student understanding. The most important thing to highlight is the media's attractiveness through the packaging of its content and the practicality of the instructional media to be used (Huda et al., 2020).

Learning media must provide a pleasant experience and meet the needs of individual students. In the learning process, the media functions as a carrier of information from the source (teacher)

to the recipient (students). Right learning media must be able to give the impression and experience received by students (Heflin et al., 2017). The function of instructional media is also widely expressed by many experts. Learning media serves as a supporting tool so that learning is attractive (Seow & Wong, 2016).

Based on the description above, it can be concluded that the use of media can clarify the presentation of messages and information so that the consequences can facilitate and improve a person's process and learning outcomes. Learning media can enhance and direct student attention to lead to an interest in learning, more direct interaction between students and their environment, and students' ability to learn independently according to their abilities (Asrori & Triyono, 2020).

Based on some of the opinions above, it can be concluded that learning achievement is series of physical and mental activities that a person has carried out from an outcome. That has been achieved as a change from behavior passed through experience and insight to interact with the environment involving the cognitive, affective domains, and psychomotor that has been stated in the test results. Based on the description, what is meant by accounting learning achievement in this study is the learning outcomes of students of class XII AKL 1 SMK Negeri 1 Kebumen in the field of accounting studies.

2. Methodology

This research used descriptive research supported by qualitative data. Descriptive analysis is a research study used to describe phenomena related to a subject or population to estimate the proportion of a population that has specific characteristics. According to (Panyajamorn et al., 2018), the primary purpose of descriptive research to get a detailed picture of a situation. At the same time, we are answering questions as who, when, where, and how. The type of descriptive analysis was chosen because it aims to describe matters related to using android-based learning media to improve accounting learning achievement in class XII AKL students of SMK Negeri 1 Kebumen 2019/2020 Academic Year.

Research that uses qualitative data will bring up data in words and not a series of numbers. The data may have been collected in various ways (observations, interviews, extracts, documents, tapes) and usually processed through recording, typing, editing, or transcription. The research site is SMK Negeri 1 Kebumen, with the study's time carried out from February to March 2020. This study's subjects were the accounting subjects' class XII AKL 1 and class XII AKL 1 student.

There are three main stages in qualitative research:

- 1) The description phase or the orientation phase, which describes what is seen, heard, and felt. New researchers cursory record of the information obtained.
- 2) The researcher reduces all information obtained in the first stage to focus on a particular problem.
- 3) In the selection phase, the researcher describes the focus that has been set to be more detailed then conducts an in-depth analysis of the direction of the problem.

The data comes from primary data in the form of interviews and observations and secondary data from literature studies and documentation. Data sources are subjects from which data can be obtained. This study's primary data sources were 35 research sources, namely accounting subjects class XII AKL 1 and students of class XII AKL 1. To make it easier to identify the data sources, the researchers classified the data sources used in the study into 3 (three), i.e.:

- 1) person, i.e., competent parties related to the required data;
- 2) paper, namely libraries and related documents;
- 3) place, the research location.

In this study, researchers used structured interviews to obtain as much information as possible about using android-based learning media to improve accounting learning achievement in class XII AKL students of SMK Negeri 1 Kebumen Academic Year 2021/2022. Observations are made by observing when learning takes place. Study documentation collected includes documents daily test scores and photos of learning activities using android-based learning media. Interviews were conducted with students of class XII AKL 1 who were considered communicative based on Android-based learning media interview guidelines. The data that has been obtained is analyzed using analytical techniques that refer to Miles and Huberman, which include:

- 1) data reduction means summarizing, selecting the main points, focusing on essential matters, looking for themes and patterns, and removing unnecessary;

- 2) the presentation/display of data, that is, after reducing the data, then the researcher presents the data into a descriptive narrative that contains a description of the problem arranged systematically and logically;
- 3) verification or concluding, namely conclusions from the results obtained. Schematically the process of data analysis according to Miles and Huberman can be seen in Figure 1.

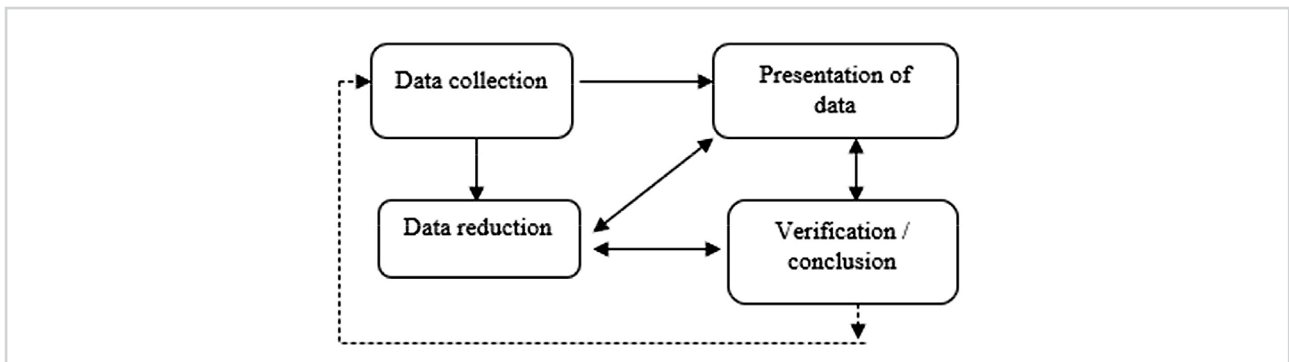


Figure 1:
Miles and Huberman's Interactive Data Analysis Model
 Source: Compiled by the authors

3. Result and Discussion

Based on observations made in class XII Accounting 1, 33 out of 34 students, or 97%, are smartphone users, namely with Android operative system. They often spent time playing smartphones to open social media applications such as Facebook, Instagram, WhatsApp, Line, and others. Not many students have educational-based applications to support their learning process. Many students still use laptops and user manuals to keep learning in school.

Also, it was found that student learning outcomes tend to below; it is known that the number of students who have not reached MCC (Minimum completeness criteria), which has been set, is 75 more than students who have achieved MCC, namely, 18 out of 34 students, or 52.94%. SMK Negeri 1 Kebumen is one of the schools that permits students to bring mobile phones, smartphones, and school. State Vocational School 1 Kebumen is also equipped with an Internet network that all students and teachers can use, especially to look for sources of material references from the internet. Some students use smartphones in class when learning not to find material references but to open social media or chat with friends. In SMK Negeri 1 Kebumen, there is no technology-based learning media used; students only accept the teacher's material and the practice exercise handouts. The teacher also teaches conventionally, which often causes students to become bored and prefer to play with smartphones.

This Android-based learning media has advantages and disadvantages. The benefits of Android-based learning media include being used anywhere, attractive, and straightforward. But besides having several advantages, this product also has disadvantages. This is due to the limited time, funds, and abilities of researchers. The drawbacks are: Need an Android mobile phone with a reasonably high specification with a minimum standard of 1 GB RAM and 4 GB of internal memory so that the learning media program can run smoothly.

As for the daily test data documentation, it was found that the average grade achieved showed an increase even though all students still had not achieved grades above the MCC. Learning using android-based media is carried out in class XII AKL 1 with a total of 34 students. The Android media used is the AKSI Application.

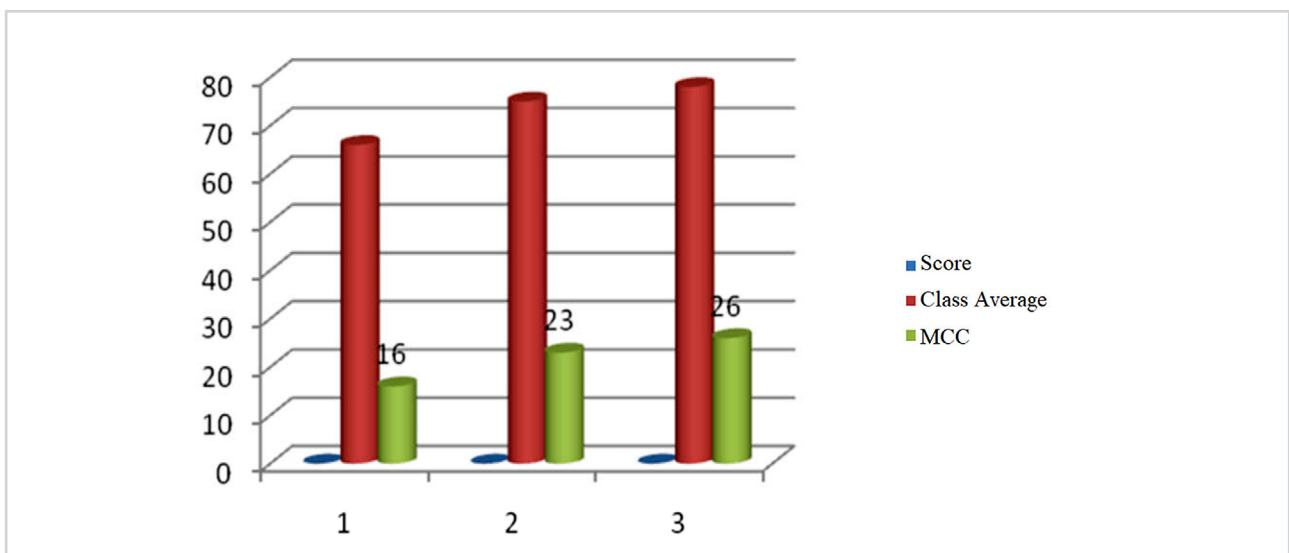
3.1. Use of Android-Based Learning Media

Based on teachers' observations about the use of learning media Asah Akuntansi (AKSI) in the android learning activities indicate that the teacher has implemented the learning process well. Hence, it was concluded that the presentation of material using the Android-based AKSI Application learning was done well. The interviews with students also mentioned that the learning process using Android-based media had been implemented well. The results of the interview also showed that students' motivation to learn increased. This proves that the use of Learning Media for Android-based AKSI Application in learning activities can increase student motivation, improving

accounting learning achievement. This can be seen from documentation of daily tests' value that average class is rising (Friesem, 2019).

This was also corroborated by the results of interviews conducted by researchers of several students. That students feel their value increases after learning by using the android-based AKSI Application media. Students can concentrate on practicing practice questions and are encouraged to carry out learning activities independently wherever they are. Students also find it easier to do assignments so that they can summarize duties on time.

Students' improvement in accounting learning achievement can be seen in the documentation of the average grade achieved before using learning media for the Android-based AKSI Application is 66. Whereas after using the learning media for AKSI Application in an android-based grade average achieved was 75, it increased again to 79. The number of students who achieved grades above the MCC before using the learning media for AKSI Applications based on Android was 16. In contrast, after using the learning media for AKSI Applications android-based students who achieved the values above, there are 23 MCC, increasing again to 26. More details can be seen in Figure 2.



Note: MCC is minimum completeness criteria.
 Score is the mean of the class.
 Class Average is the average score achieved.
 1, 2 and 3 are the Classes.

Figure 2:
Diagram Image Improving Student Learning Achievement

Source: Authors' findings

4. Conclusion

The study results showed that the use of learning media based on The Android ACTION Application in learning activities could improve accounting learning achievement in students of class XII AKL 1 SMK Negeri 1 Kebumen Academic Year 2019/2020. Provision of learning facilities that can enhance the teaching and learning process for the better. In this case, especially WIFI that can support learning using Android. Because education by using Android by the teacher can increase student motivation, which can also improve student learning achievement, if WIFI is sufficient and available smoothly, teachers and students will be easy to use in teaching and learning activities. Teachers to enhance their ability to operate learning media that can support teaching activities. Teachers should use learning media that are interesting, innovative, and useful. One of the Android-based learning media is the SCAI application. Because as the researchers have explained before, learning media for Android-based AKSI applications in learning activities can increase student motivation, which can also improve accounting learning achievement. Students expect to use smartphones in class while studying to find reference material or educational applications, not for social media or chatting with students who can achieve progress in learning and learning goals that exemplify learning achievements.

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