An Analysis on the Need for Mobile Learning-Based Interactive Learning Media in Vocational High School

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Abstract. Technology development encourages many changes, one of which occurs in education realm resulting in the concept of learning media. The presence of online learning media will be effective and efficient, because learning can be done not only in face-to-face (physical) meeting between teachers and students, but also whenever and wherever the students are. However, in fact, most teachers found some constraints with managing the archiving learning and students often complained in the archiving learning; for that reason, a mobile learning-based interactive multimedia should developed. This research employed a descriptive qualitative approach, analyzing the result of interview with the teachers of Archiving subject in Vocational High Schools throughout ex-Surakarta residency. The students expect that the problem in the lesson can be minimized by the teachers by providing a mobile learning-based interactive multimedia learning media. The use of mobile learning interactive multimedia is expected to facilitate the learning process anytime and anywhere and to attract the students’ learning interest in archiving subject.

Keywords: learning media; mobile learning; vocational high school.

1. Introduction
Education is something important in each individual and a main aspect in creating the high quality human resource; therefore education should be organized as well as possible following time development. Time development is characterized with the presence of Science and Technology ever developing, thereby encouraging many changes, one of which is in education realm. The very rapid development of science and technology today makes nearly all man activities controllable to Science and Technology application; thus an attempt is required to find out the sciences more easily (Wiyono et al., 2012) (Priwantoro et al., 2018).

Education realm is inseparable from learning process involving teacher, student, and learning environment that will affect each other. The use of learning media is a factor supporting the achievement of learning objective conducted by a teacher (Astuti & Bhakti, 2018). Learning media is a tool, method, or technique used to intermediate a communication between a teacher and students in the attempt of making the communication and interaction between teachers and students in education and teaching processes run more effectively at school (Kuswanto & Radiansah, 2018).

Learning media that can be developed today is the Android-based learning media. An Android-based learning media has some advantages: accessible to anyone and usable anywhere, thereby encouraging the development of learning media. Using android, the learning process between teacher and students can be implemented effectively and efficiently as it does not reduce the learning effective hour. The presence of Android-based learning media development brings fresh wind to education realm in Indonesia. The learning media has practical, flexible, and personal characteristics, thereby will improve the students’ interest, motivation, and creative data in conducting the learning process.
2. Methodology
This research employed a descriptive qualitative approach, analyzing the result of interview with teachers assuming the Archiving subject. The research was conducted in Archiving Class of Vocational High School of Surakarta Residency. The subjects of research were teachers assuming Archiving Subject in school year of 2020/2021. The procedure of research was conducted through in-depth interviewing the teachers concerning the need for the availability of independent learning media than can be used to improve the learning outcome of students in archiving subject.

Technique of analyzing data used was a descriptive analysis on the result of interview and questionnaire distributed to teachers in order to reveal the problem in learning process, the difficulty found and the learning material used by teacher in the learning process.

3. Result and Discussion
Considering the result of questionnaire distributed to teachers assuming archiving subject in fiscal year of 2020/2021, most teachers need mobile learning-based interactive multimedia to make the learning process and material concept understanding acceptable to the students. The data of questionnaire is presented in the table below.

Table 1. Data of Respondent Questionnaire

| No | Questions                                                                 | Score                                                                 |
|----|---------------------------------------------------------------------------|----------------------------------------------------------------------|
| 1  | Do you find some constraints in managing the archiving learning?          | 75% of teachers find constraints in managing learning                 |
| 2  | When you find some constraints in managing the archiving learning, can you find the solution? | 87.5% of teachers can find solution to the constraints with learning management |
| 3  | Do students often complain in learning Archiving?                        | 62.5% of students often complain in the learning                      |
| 4  | Is only the book the learning source used?                               | 75% of students use book as the learning source                       |
| 5  | In your opinion, what learning does need the development of learning source integrated into internet or based on mobile learning in the archiving subject? | 100% of teachers want mobile learning-based learning                 |
| 6  | Do you use learning media in the Archive subject learning?               | 93.8% of teachers use learning media                                  |
| 7  | Can you operate smartphone and internet well?                            | 81.3% of teachers can operate smartphone and internet well            |
| 8  | Do you often use internet/wifi facilities provided by the school?        | 87.5% of teachers use the school’s internet                           |
| 9  | Have you ever tried to use multimedia learning media in the archive subject? | 41.3% of teachers try to use multimedia learning media                |
| 10 | Do you agree if a mobile learning interactive multimedia will be developed in this archiving subject? | 100% of teachers want wish the development of mobile learning interactive multimedia |
From the table 1 showing the data of respondents’ questionnaire, it can be seen that most teachers find constraints in managing the archiving learning and students often complain in the archiving learning, so that a mobile learning-based interactive multimedia should be developed to enable the students to get independent, effective, and efficient learning source, that can be a solution to the constraints with the management of archiving learning occurring today.

Considering the result of in-depth interview with some students, it can be found some constraints in the learning process in archiving subject: saturation and difficulty of understanding the material, so that teachers find some constraints in managing the archiving learning. Saturation and difficulty of mastering the material are affected by the limited media used by the teachers in the learning process, only blackboard and power point. The media used by teachers do not utilize visualization on the material of archiving studied.

The students expect that teachers can minimize the problems of saturation and difficulty in understanding or mastering the material by providing a mobile learning-based interactive multimedia learning media. The learning source used by the students constitutes book, so that the students were less interested in learning the material presented and bored or saturated in understanding the material delivered by teachers in the learning process, so that a solution is required to use an interactive multimedia presented in mobile learning. Mobile learning is a learning model implemented between spaces or environments using portable technology during the learning process by carrying mobile phone with various features and applications existing (Munir, 2012)(Simalango et al., 2018)(Kumar & Goundar, 2019)(Hrabovskiy, 2019)(Surahman, 2019). In this case, the learning is based on technology, in which the students can access learning material, direction and application related to learning, anytime and anywhere, thereby facilitating the learning and material understanding processes.

Interactive multimedia has some advantages to students and teachers in the learning. The students will be more interested in and challenged to operate multimedia. Students can attend each learning process more actively and improve their learning outcome because they feel joyful, and interested in the learning process. Generally, the application of mobile learning-based interactive learning multimedia is used more effectively to improve the learning process skill. The process skill occurring is very important to be mastered by individual students (Nugroho & Surjono, 2019) (Balacheff et al., 2009) (Nurhidayat et al., 2020).

4. Conclusion
Considering the result of research conducted, it can be concluded that the students’ archiving learning needs an independent, effective, and efficient interactive multimedia in order to help improve their understanding on archiving material in the learning process. This research is a preliminary study on the development of mobile learning-based interactive multimedia applied in archiving subject and still needs follow-up from the analysis on the need for mobile learning-based interactive multimedia appropriate to the need in the field.

Utilizing the mobile learning interactive multimedia in archiving subject, the learning process expectedly can be conducted easily anytime and anywhere and it can attract the students’ learning interest in the archiving subject.

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