

The Development of Android-Based Assessment to Improve the Accuracy, Efficiency, and Effectiveness of Micro Teaching and Internship Assessment

A. Introduction

Assessment for microteaching and internship (Program Praktek Lapangan) programs is fundamentally a performance assessment (Sulthon, 2009), which is supposed to be on-going process. The assessment is usually conducted through a relatively difficult observation (Heriyanto, 2010) and therefore less efficient. For this reason, an android-based application of assessment is needed. Compared to other systems, android has more advantages (Prabowo, et al., 2013) such as easy to use, practical, efficient, accurate, fast, on-going process, paperless, and accountable.

B. Android-based Assessment for Micro Teaching and Internship Programs

Micro teaching and internship programs are evaluated through performance. Performance assessments is typically conducted through observation in an on-going process (Sugiyanto&Chusnan, 2010) based on Likert scale. The general purposes of microteaching among other are to enable students understand and master concepts, principles, and components of KDP and to be able to apply them (Team PPL, 2008). KDP covers several skills such as 1) skill to open and close classroom instruction; 2) skill to explain the materials; 3) skill to improvise; 4) skill to manage class; 5) skill to ask; 6) skill to offer reinforcement; 7) skill to develop small and individual teaching; and 8) skill to lead small group discussion (Sulthon, 2009).

The utilization of smartphone as learning evaluation devise has not been widely used. With its capabilities, rapid development, open source operating system (Humala, 2013; Ichwan&Hakiky, 2011), touch screen, and large memory, smartphone is very possible to be used as a learning evaluation tool which is reliable, on-going process and paperless.

C. Research Method

This research is a developmental study which includes three stages: 1) preliminary study, 2) development and revision, and 3) testing devise. The application was developed based on the internship program evaluation indicators at the University of Kanjuruhan Malang. Its accuracy was measured through comparison between the results given by the application and the results gained through manual calculation. Meanwhile, the effectiveness and efficiency of the application was measured using several indicators.

The respondents of the research consist of microteaching lecturers at the University of Kanjuruhan Malang, tutors of the internship program, and in-service teachers. There were 33 respondents altogether. The data were collected using checklist and questionnaire. The data were analyzed using descriptive method, namely the percentage of maximum score.

D. Findings and Discussion

The application was tested using five different smartphone brands and specifications. The results indicate that the application run successfully on android-based smartphones but not on windows-based and blackberry-based smartphones. This is unsurprising because the application has been designed for android smartphones. The results of three-time validation process shows that the

application was complete (97 %) and appropriate (91.7 %). Based on the results of the test conducted by the respondents, the application was complete (98 %). Meanwhile, the appropriateness of the application is described in Table 1 below.

Table 1
The appropriateness of the application according to the respondents

No	Aspect	Appropriateness (%)
1	Effectiveness	93,6
2	Efficiency	94,7
3	Reliability	90,9
4	Usability	89,4
5	Compatibility	84,0
6	Design	85,5

The effectiveness, efficiency, and reliability of the application were considered 'very appropriate' by the respondents with a score above 90 %. Surprisingly, the level of efficiency of the application was scored 100 percent by the validators, because the process was faster and also paperless. The assessment process is very practical as the assessment can be done anywhere and anytime, and the results also can be accessed directly. More importantly, the evaluation or assessment process is on-going process and thus is more accurate and accountable.

The usability of the application is high because it is easy to use (touch screen), practical and simple. The compatibility of the application, according to the validator, was 83.3% and 84 % according to the respondents because the application has been designed for android only. According to design experts and respondents, the design of the application can be categorized as 'very appropriate'.

E. Conclusions and Suggestion

The android-based microteaching and internship assessment application was assessed as 'very complete' and 'very appropriate' by the validator and respondents. The evaluation process became on-going process so that assessment became more effective, accurate, and accountable.

What still needs to be developed is that the compatibility of the application so that it can operate on different operating systems of smartphone and the assessment results could be sent through the Internet, Bluetooth, or other practical ways.

F. References

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