

Mobile Learning-Based Pocketbook Development in Educational Field Practice in Increasing the Competency of Professional Teachers

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ABSTRACT

Teacher professionalism reflects the attitude, knowledge, and skill they have. Professional teachers are teachers with the necessary qualifications in carrying out the teaching and learning process which includes knowledge, social, attitude, and professional skills competencies. Teacher professional competence accompanies Law Number 20 of 2003 which has been defined regarding an education system that demands superior teachers, a spirit of professionalism, ethics, and commitment in carrying out their duties. A pocketbook based on mobile learning in education with the matter of increasing the competence of professional teachers is a form of implementation of developments in the world of education in the 21st century. The importance of developing a pocketbook with one of these models is to accompany the above learning through critical thinking, collaboration, creativity, innovative, and communication. The development of this book aims to prepare professional teacher candidates when conducting Educational Field Practices (EFP) in schools. Through the pocketbook, prospective professional teachers are expected to be able to plan learning programs, carry out learning, assess the learning process, master teaching materials, and implement them in the teaching and learning process.

Keywords: Pocketbook, Mobile Learning, Competence of Prospective Professional Teachers



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INTRODUCTION

Law No. 20/2003 describes education as a conscious and planned effort that can create a learning atmosphere and learning process that can develop potential in students to be able to have religious spiritual strength, self-control, personality, noble character, and be able to hone the skills needed in students, in society, nation, and state. In the development of education in the era of the industrial revolution 4.0, teachers are required to have high competence, including teachers must be able to compete and have high quality, professional and competent in their fields. These requirements aim to deal with the very diverse character of students with more complex learning materials to improve the standard of learning processes and better student achievement. Major transformations occur not only in the world of education, but also involve economic, social, cultural, and political aspects driven by developments in science and technology, the environment, globalization, and changes in population structure (Andriani, 2010).

Education will never be separated from the learning process, which this learning process includes teachers, students, and the learning environment that influences each other so that they can achieve learning goals. Teaching isn't just a cognitive challenge; it is also socially and emotionally demanding (Jennings & Greenberg, 2009). To meet this challenge over the long term, teachers will need to manage their engagement and develop ways to cope with the constant demands of their work. Empirical research has found that the

combination of high engagement and lack of stress management skills is a risk factor for decreased well-being and performance (Hobfoll & Freedy, 1993; Maslach & Leiter, 1999). Therefore, teachers need to develop self-regulation skills to sustain their work commitments over time and to prevent unfavorable motivational and emotional outcomes.

Education that has good quality can be realized with efforts that provide synergies that affect all components of education so that it can lead to interactions between teachers and students and is also related to interactions with learning resources that are regulated according to predetermined learning plans or settings (Mustofa, 2017). Education that has good quality is defined as education that can produce graduates who can solve all the problems that exist in the world of education by the utilization of the knowledge that has been learned (Samani, 2012).

One of the efforts made by the government to improve the quality of education to create superior human resources is to issue PERMENDIKBUD No. 22/2016 regarding process standards that require learning to be held interactively, inspiring, fun, challenging, motivating students to actively participate, and providing sufficient space for the initiative, creativity, and independence by the talents, interests, and physical and psychological development of students. In addition, PERMENDIKBUD No. 22/2016 also regulates learning principles so that they comply with Graduate Competition standards and content standards, one of which concerns the use of information and communication technology to increase the efficiency and effectiveness of learning (PERMENDIKBUD, 2016).

The main goal of an educator is 1) educators can guide students to achieve learning objectives properly; 2) educators can guarantee students can solve problems and overcome problems in the learning process; and 3) educators can ensure that at the end of the learning process, there is an increase in students' learning abilities students (Cahyadi, 2019).

The role of technology in the world of education in the 21st century is very important, the application of technology in the teaching and learning process is proof that the world of education has achieved better quality, which leads to the use of learning resources in the form of technology-based equipment, techniques, people, messages and settings (Seels & Richey, 1994).

In the world of education today, educators or students as internet users can connect any content through the network, to choose the right digital learning as learning material; and tests, this allows educators and students to control the content of digital teaching materials used. Thus, the learning model can be developed by; combining the use of digital learning content and taking advantage of digital learning to achieve teaching effectiveness (Lai et al., 2012). To be able to realize these goals can be started by innovating in the world of education, one of these innovations is to pay attention to teaching materials because teaching materials are one of the supports for the learning process. Every teacher is required to have learning tools, one of which is teaching materials. These teaching materials can help teachers in presenting the material to be taught. It's just that the teaching materials that exist to date are in the form of soft files and hard copies which take up a lot of space and are a bit complicated because they are taken everywhere. Based on the description above, the researcher is interested in innovating existing teaching materials made in mobile learning-based pocketbooks, so that they can be efficient in time, place, and cost.

The digital pocketbook can be in pdf format or accessed via a mobile app and can also be assisted by using an Android-based application, namely Appypie (Ambarwati, 2017). Appypie is an Android-based website that is easy to use because it already has a special template for making digital pocketbooks, the application does not require special skills in the programming process on a computer, so the application is easy to operate on Android (Rihandoko, 2018).

METHODS

The research being carried out is in the form of Research and Development research, in which digital pocketbook innovations will be carried out as materials for prospective teachers in field practice at schools as well as a form of effort to integrate the 21st-century learning system as a form of training for future professional teacher candidates. In the world of education, it is stated as research and development using methods that can produce new products and test the effectiveness of these products (Sugiyono, 2016). Designing an instructional system using a systems approach is called the ADDIE Model (Anisah & Lastuti, 2018). The ADDIE model is a development model that has been systematically structured and programmed (Vejvodova, 2015). This systems approach has the essence of dividing the pocketbook development process into several steps, then arranging these steps in a logical sequence, and each of these steps will have the output of each stage as input for the next stage (Januszewski & Molenda, 2008). This ADDIE model has several stages, namely; (1) Analysis, (2) Design, (3) Development, (4) Implementation, (5) and Evaluation (Branch, 2009). This development research was conducted to bridge the gap between educational practice and academic research (Ardhana, 2002).

The type of research used in this research is descriptive which explains the development of pocketbooks based on mobile learning in education in increasing the competency of prospective professional teachers. This research method is a literature study by looking for literature that is in line with the research topic. Literature study according to (Nazir, 1988) is an important step in which the researcher determines the research topic, the next step is to conduct studies related to theories related to the research topic. Researchers use studies that come from trusted literacy sources such as books or research that was previously conducted by other experts.

RESULTS

In the Bahasa Indonesian Big Dictionary, a pocketbook is meant as a small book that can be stored in a pocket and is easy to carry anywhere (Nurjannah & Dwi, 2019). The pocketbook is a type of printed teaching material, the difference between a pocketbook and existing teaching materials is the shape of the size. The size of the pocketbook is smaller than the existing textbook. A pocketbook is a book that is small and easy to carry anywhere and can even be put in a pocket. Based on the opinion of Eliana and Solikhah, a pocketbook is a book that is as small as a pocket that can be effectively carried anywhere and can be read whenever needed. A pocketbook can also be interpreted as a book that is minimalistic, lightweight, and can be stored in a pocket, which can be carried practically anywhere and can be opened and read at any time. From the description above, it can be concluded that a pocketbook is a book that contains teaching materials that are small in size, which can be put in a pocket and easily taken anywhere.

There are some of the advantages of pocketbooks, i.e. 1) The shape is simpler and more practical; 2) It is easy to carry anywhere, because of its size and minimalist shape; 3) The pocketbook design can be made as attractive as possible, to generate interest and interest in the pocketbook; 4) There is a combination of images and text, which can increase students' interest. 5) Teachers and students can review material easily and practically. When talking about strengths, we also talk about shortcomings, because in this world nothing is perfect. The disadvantages of this pocketbook are 1) It requires reading ability and speed; 2) There

is difficulty in displaying visual motion in a pocketbook; and 3) Pocketbook maintenance is quite complicated because the material used is usually damaged and lost quickly.

Mobile learning according to Tamimuddin, can be interpreted as the use of movable handheld information technology (IT) devices such as PDAs, smartphones, laptops, and tablet PCs, which are used for the learning and teaching process. Meanwhile, according to Quinn Clark, mobile learning is *“is Learning is the intersection of mobile computing and e-learning: accessible resources wherever you are, strong search capabilities, rich interaction, powerful support for effective learning, and performance-based assessment. E-learning is independent of location in time or space for learners and mobility of learning”*.

Mobile learning is part of electronic learning (e-learning) which itself is part of distance learning (d-learning). Mobile learning or m-learning is often defined as e-learning via mobile computing devices. Mobile learning is the storage of electronic learning materials on mobile computing devices so that they can be accessed anywhere, anytime, and by anyone. These devices can be defined as digital cell phones and PDAs. Based on the explanation above, we can interpret that mobile learning as a device that can work alone and is used for the learning and teaching process, which can be accessed anywhere and anytime. In the application of mobile learning there are advantages and disadvantages, the advantages are: 1) Can be used anywhere and anytime; 2) Devices that move relatively have a lower price than the price of a desktop PC; 3) The size of the device is small and light; 4) Can support distance learning; 5) The learning process is centered on students; 6) Can increase the interaction between teachers and students; and 7) Can help students be literate in technology.

While the disadvantages are: 1) The ability of the processor is often error and hampered; 2) Inadequate memory capacity; 3) Display screen; 4) Different mobile platforms; and 5) Different hardware for different platforms too. In essence, weaknesses or deficiencies in mobile learning sooner or later will be overcome along with the development of technology that is increasingly sophisticated.

The development model used in this research is ADDIE. According to Pribadi (2016), the ADDIE learning system design model is simple and can be done in stages or systematically. The stages in the ADDIE model are related to one another. Therefore the use of the ADDIE model needs to be done gradually and thoroughly. The following are the five stages in the ADDIE model: Analysis, Design, Development, Implementation, and Evaluation.

Analysis Stage: The analysis that we carried out is an analysis of the needs of materials that will be needed in schools, not forgetting to adjust them to the existing curriculum. This analysis phase can be carried out with an interview session with the teacher concerned. The results of this analysis will affect the content of teaching materials that are packaged in the form of pocketbooks based on mobile learning.

Planning Stage: The planning stage will contain the outline of the pocketbook, contents, cover, appearance, pictures and writing which also relates to the material to be taught which cannot be separated from KI, KD, and GPA.

Development Stage: The stage relates to the preparation and validation of mobile learning pocketbooks. The design and application are designed to be as attractive as possible, you can use Adobe Photoshop CS6, Adobe Acrobat Reader DC, and Microsoft Word according to your laptop or computer and convert to PDF. After the pocketbook is ready, a validation/feasibility test is carried out which aims to minimize errors in making.

Implementation Stage: The pocketbook that has been completed will be applied or used by the teachers and then the teacher can fill out the existing questionnaire. Do not forget that the existing questionnaire is also given to students, bearing in mind that this pocketbook can also be used by students whose schools allow the use of technology/electronic goods.

The activities to be carried out in each stage can be seen in the following chart (Fig 1).

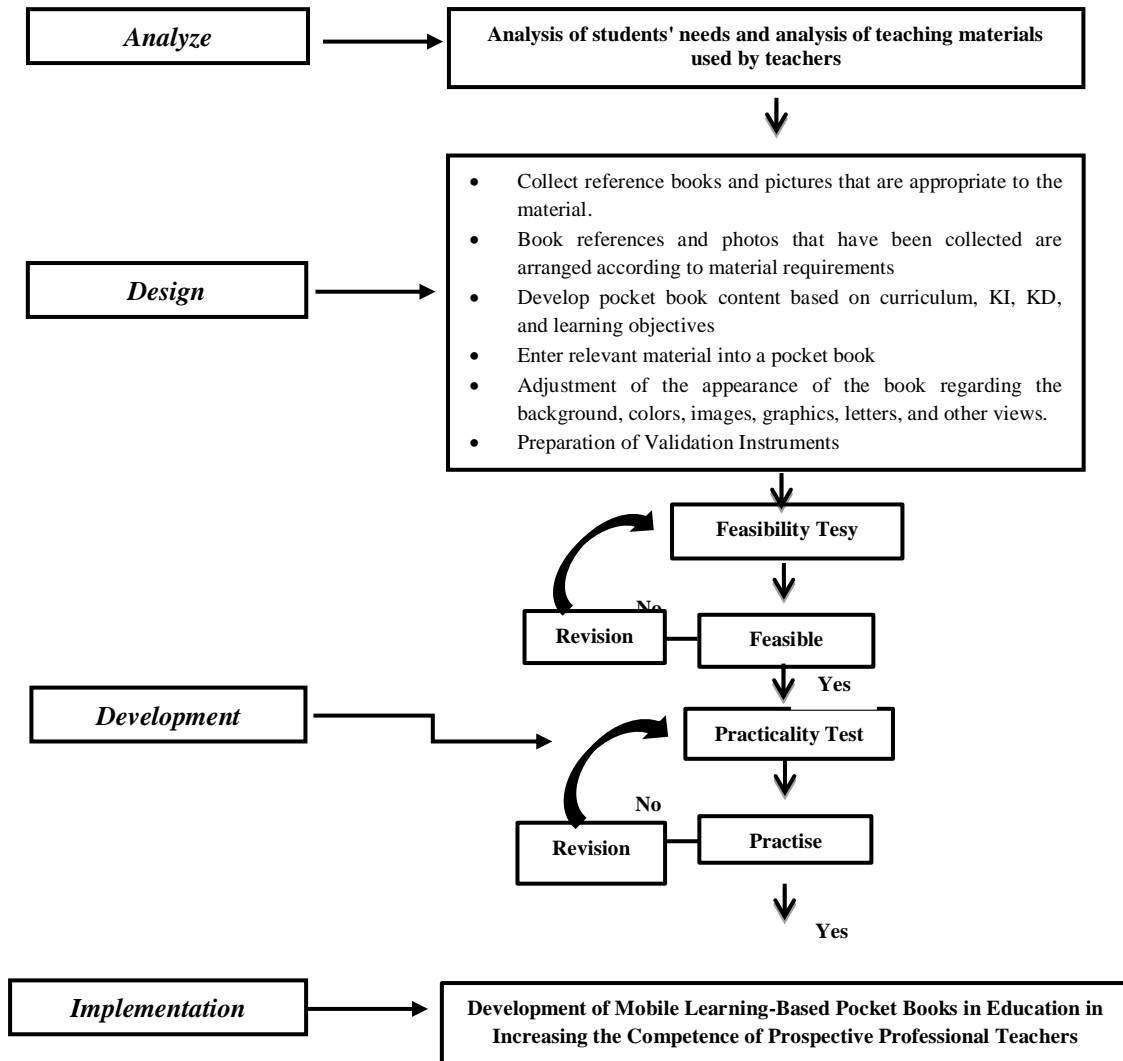


Figure 1. Stages in the ADDIE model.

CONCLUSIONS

A pocketbook is a small book that is designed to be as big as a pocket containing teaching materials for teachers, if possible, students can use them. The pocketbook that is made will be designed and designed as attractively as possible so that it can generate interest in those who read it. The pocketbook that has been designed will be tested for feasibility and validation, if it is not feasible then it will be revised until finally the pocketbook can be said to be feasible. It is said that it is feasible, so it will be tested on

teachers at school, then, asked for a response about the pocketbook. It is hoped that readers of pocketbooks, especially teachers, if apply pocketbooks as teaching materials or become one of the learning resources in the learning process, the ability to share time or use time effectively and efficiently so that learning objectives can be fully achieved is needed.

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