

Developing a Digital Literacy-Based Teaching Model for Introduction to Educational Management

Irwandy^{1*}, Evi Eviyanti², Elvi Syahrin³

^{1,2,3}Universitas Negeri Medan, Indonesia

*irwandymanday@gmail.com¹

Abstract. The rapid development of science and technology requires teachers to develop their competencies continuously. Innovation is the ultimate key in industry 4.0 that requires teachers to form learners to have the twenty-first century skills and competencies, who are able to think critically, creatively, collaboratively, and communicatively. To teach Introduction to Educational Management course in one learning process needs one digital literacy-based teaching model that is taught synergistically and systematically. The main purpose of digital literacy use in teaching and learning is to construct comprehension, writing skills, and communication skills holistically. These three things will result in character and higher order thinking skills developments. The learning content is what is being taught, as for digital literacy, it is how to teach the content itself. This study aimed at developing a teaching model for Introduction to Educational Management that based on digital literacy. This study generated a digital literacy-based teaching model for Introduction to Educational Management course that has good quality by referring to Plomp's concept of development, which consists of phases such as investigation, design, realization/construction, test and evaluation, and implementation. The result of the study showed that the digital literacy-based teaching model for Introduction to Educational Management had fulfilled the elements of validity, practicality, and effectiveness. The validity score according to three experts was 3.4, which is categorized as valid. The average score of practicality based on students' and lecturers' responses was 86, which is categorized as very practical. Meanwhile, the score of effectiveness of the teaching model based on the analysis of pretest and posttest results was 84.5, which is categorized as very effective.

Keywords: Teaching Model, Educational Management, Digital Literacy

1 Introduction

The rapid development of science and technology requires teachers to develop their competence continuously. Innovation is the primary key in the industry 4.0 that demands teachers to form the learners who possess the twenty-first century skills that are able to think critically, creatively, collaboratively, and communicatively. Minister of Education and Culture [1] states that an advanced nation is not only built relying on abundant natural resources and large population. A big nation is characterized with literate society, which has advanced civilization, and actively

contributes in promoting the world community. Literacy in this context is not only a matter of how a nation is free from illiteracy, but also most importantly of how the citizens possess the life skills in order to compete and be side by side with other nations in creating the world welfare. In other words, a nation with advanced literacy culture shows the ability of that nation in collaborating, thinking critically, creatively, and communicatively in order to prevail the global competition.

In response of the launching of national literacy movement, the State University of Medan (Unimed) as one of the best universities in North Sumatra welcomes the national literacy movement by incorporating its learning process to utilize one of available literacies that is digital literacy. Unimed leaders in various opportunities keep on socializing to the lecturers in all study programs to take advantage of digital literacy in their teaching and learning process.

Introduction to Educational Management course in French Language Study Program is a new course, because this course was firstly given on the fifth semester for students of class of 2016. This course is considered important to be delivered in French Language Study Program due to the problem in education is not only a matter of mastering the French language skills for the students but also a matter of how to manage the educational process, whether in the process of education itself as well as after they become educators later in their lives.

Based on the data in the French Language Study Program, the competence of the students is still not very good. It can be discovered from the number graduates who obtain the certificate of international DELF B2 is only around 10%. This condition should become a serious matter that must be resolved immediately. So does the Introduction to Educational Management course, its result is still not optimal.

To date, the teaching and learning process in French Language Study Program especially for Introduction to Educational Management course has not utilized the advancement of technology and information that is on a rapid rate. By the rapid advancement of science and technology requires lecturers to improve their competences continuously, especially in the teaching and learning process by utilizing digital literacy.

Innovation becomes the primary key in the era of Industry 4.0, demanding lecturers to shape the students to own the twenty-first century skills who are able to think critically, creatively, collaboratively, and communicatively. The competent students are the output of good higher education management system. Lecturers are the main actors who manage the teaching and learning process inside or outside the classroom. Lecturers' role in enhancing the quality of their students is really significant. In this case, lecturers are required to keep on increasing their self-quality including the management of teaching and learning process through digital literacy. By the increase of digital literacy competence, it is expected that lecturers will be more easily to complete their tasks and conduct the teaching and learning process in the campus by utilizing information and communication technology.

Thus, it is clear that digital literacy as the trigger for lecturers to make changes in the campus, in the forms of the development of teaching and learning process and the increase of education quality standards achievement which based on information and communication technology. Therefore, it is necessary to develop a teaching model that can accommodate and balance the activities on various aspects of teaching and learning. On the other hand, the demands on the mastery of information and communication technology in the era of millennial have to be responded as a part of the teaching and learning itself. In relation to that matter, the development

of digital literacy-based teaching model for Introduction of Educational Management course becomes really prominent to be conducted.

Learning Introduction to Educational Management

The demands of the times and educational challenges nowadays are very complex. Consequently, a breakthrough is needed to fulfill those demands and challenges. One of the ways is by applying digital literacy-based teaching and learning. Digital literacy-based teaching and learning is a teaching and learning that focus on the optimization of all aspects of learning. In digital literacy-based teaching and learning, we focus on the development of the students' competence, not on the achievement of the competence. So that the educators are more appreciative on the differences of each individual and believe that every individual is born unique, that has lacks and excesses on his or her own. These differences for examples are learning styles, talents, and interests. The appreciation from educators can be in the form of the application of model or media that can support the differences of each student as a whole, not only based on models, techniques, methods or media which are monotonous or unvaried. This monotony can cause some of the learners become unable to develop their potentials. In fact, with the existence of digital literacy-based teaching and learning, it is believed that it can fulfill the educational challenges and demands of the times.

Introduction to Educational Management course is one of subject area courses (MKBS PRC 47028) of the study program that is mandatory to take for all of the students of French Language Study Program. In *KKNI* curriculum of French Language, the Introduction to Educational Management course is taught in one semester, which is on the fifth semester with the weight of 2 credit hours. This course discusses the definitions, functions and roles of educational management, continued with in-depth study on the management of field of study of educational management, which encompasses learners, educators, curriculum, educational staff, education infrastructure, education funding, education institution management and relationship between education institution and society, as well as educational leadership, education supervision, and entrepreneurship development.

Digital Literacy Learning

The term literacy itself actually often undergoes development and changes from time to time. According to Freire [2], literacy is defined as a social construction and is never neutral. Then literacy is also said as a complex process that involves the construction of prior knowledge, culture, and experience to develop new knowledge and more in-depth understanding. Literacy at the beginning was defined as the ability to literate and further defined as literate or understanding. In the first step, the ability to read and write was emphasized because both of those language abilities are the basis of literacy development on other things. According to Gilster [3], digital literacy is defined as the ability to understand and to use information in any form from any extensive source that can be accessed via computer device. Bawden [4] offers new perspective about digital literacy that is rooted in computer literacy and information literacy. Thus, referring to Bawden's notion, digital literacy is mostly related to technical skills in accessing, stringing up, understanding and propagating information. Meanwhile, Belshaw [5] in his thesis "What is 'Digital Literacy'?" says that there are eight essential elements to develop digital literacy, which are: (1) Cultural, the understanding of variety of contexts of digital users, (2) Cognitive, the power

of thought in judging contents, (3) Constructive, the copyrighting of something special and actual, (4) Communicative, the understanding of network performance and communication in digital world, (5) Responsible confidence, (6) Creative, doing new things with new ways, (7) Critical in responding to contents, and (8) socially responsible. The cultural aspect, according to Belshaw, becomes the most important element because understanding the user context will assist the cognitive aspect in judging the contents. From those above opinions, it can be concluded that digital literacy is the knowledge and skill to use digital media, communication devices or networks in finding, evaluating, using, creating information and utilizing it healthily, wisely, intelligently, carefully, correctly and law obediently in order to foster communication and interaction in everyday life.

Developmental Model of Plomp

According to Plomp [6], there are five phases in instructional development, which are (1) investigation, (2) design, (3) realization/construction, (4) test, evaluation, and revision, and (5) implementation. In the investigation phase, the activities done are identifying information, analyzing information, making definition on identified information and scope of the problem, and further planning. In the design phase, the design document making is done based on the result of investigation. In the realization/construction phase, the developmental product is produced based on the designated design. In the test, evaluation and revision phase, the quality of developed solution is measured and considered, and continuous decisions are made based on the considerations. It can be said that evaluation phase determine whether the design specification has been fulfilled or not, further it is revised then back to designing activity and so on and so forth. This cycle is the feedback cycle and will stop after the desired solution is obtained. In the implementation phase, the design solution is implemented in possible situations in which the problems could actually happen.

3 Research Method

The study was conducted in French Language Study Program of Languages and Arts Faculty of the State University of Medan to fifth semester students on 2019/2020th academic year. The object of the study was the development of digital literacy-based teaching model of Introduction to Educational Management. This study applied the development research approach, based on the developmental model of Plomp, which includes phases of: (1) investigation, (2) design, (3) realization/construction, (4) test, evaluation, and revision, and (5) implementation. The primary data sought in this study was the data of developmental process of digital literacy-based teaching model for Introduction to Educational Management, and the quality of the teaching model was detailed in three sub data, which are validity, practicality, and effectiveness of the teaching model.

3 Results and Conclusion

The result of the study showed that the developmental process of the teaching model was conducted using the procedure of developmental model of Plomp, that were (1) investigation, (2) design, (3) realization/construction, (4) test, evaluation, and revision, and (5) implementation.

The digital literacy-based teaching model has complied the elements of validity, practicality, and effectiveness. The validity score of this teaching model according to 3 (three) experts was 3.4, which categorized as valid. The average practicality score of this model based on students' and lecturers' responses was 86, which categorized as very practical. As for the effectiveness score of the teaching model based on the analysis of pretest and posttest results, it was 84.5, which categorized as very effective.

4 References

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