Teacher’s Perception about the Use of E-Learning/Edmodo in Educational Activities

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Abstract. This study examined the perception of the teachers about the use of e-learning/Edmodo in their educational activities. The teachers consist of diverse subject. Their perceptions were investigated in terms of three aspects: effects of the use of this technology on their perceived motivation, the perceived usefulness and the perceived ease of use of this technology. Edmodo was set up a Learning Management System (LMS) in an online discussion group of subject. The study was conducted in descriptive method. The data were collected by using a questionnaire, interview, and documentation technique. The findings of the study indicated that the teachers perceived that e-learning/ Edmodo is a useful and also easy to use technology. It was found out that the teachers are satisfied with advantages of the use of this new technology in their LMS.

1. Introduction

Information and communication technology (ICT) has developed nowadays. The popular one is internet. Internet use was not only for communication tool but also a part that include in all side of human life like business, industry, education, social relation, etc. Data of APJII (Asosiasi Penyelenggara Jasa Internet Indonesia) show that the amount of internet user in Indonesia on year 2016 noted as 132.7 million users.

If we research specifically, internet user between 10-24 years old counted as 75.5 %. They usually use internet for uploading, downloading, browsing, v-log making or social media activities. Most of student in Bandung easy to access internet because it was supported by gadget, smartphone, laptop and free wifi anywhere like in the school, campus, public area, etc.

In a little while, internet became the most important guide for distance learning. The use of the internet as an instructional guide forced teacher rethink their ways of instructions offered and administered [1]. Go on the usage of internet in educational activities is virtual learning environment (VLE). A VLE typically provides tools such as those for assessment, communication, uploading of content, return of students’ work, administration of student groups, questionnaires, tracking tools, wikis, blogs, chats, forums, etc. over internet. Such e-learning systems are sometimes also called Learning Management System (LMS), course management system (CMS), learning content management system (LCMS), managed learning environment (MLE), learning support system (LSS), learning platform (LP) or e-learning sharing portal (ELSP); it is education via computer-mediated communication (CMC) or online education [2]. E-learning may be defined as instruction delivered electronically via the Internet, Intranets, or multimedia platforms such as CD-ROM or DVD [3]. One of the famous types of LMS that has many features is Edmodo as educational tool. Edmodo was found
at 2008 by Nicolas Borg and Jeff O’Hara. Edmodo consist of three accounts can log in, teacher, student and parent.

There are many benefits of using Edmodo as an educational tool. Edmodo help students visualize abstract idea and make it easy to find reliable information. Teachers at any grade level can easily create collaborative activities for students on it. Students’ motivation and confidence are increased when technology is integrated into classroom instruction. Computer engagement also improves student's academic achievement. The key component in students’ perceived level of intrinsic motivation was directly related to meaningful communication in the course [4].

Many devices are still on the beginning of their using in education, like Edmodo. Research found that Edmodo is the most popular application in the world with 58 million more users (Capterra.com).

Nowadays technology is important for educational process, so the teachers should play the main role in the adoption and integration of technology in teaching-learning process. There are many factors, which are influencing this process. These factors are developing from the previous century till today. Teachers’ integration of technology into teaching-learning is also influenced by organizational factors, attitudes towards technology and other factors [5].

Personal characteristics such as educational level, age, gender, educational experience, experience with the computer for educational purpose and attitude towards computers can influence the adoption of a technology [6]. Research found that male teachers have got more positive attitudes toward technology and their using of technology in education process is more frequent than female teachers. Among the factors that influence successful integration of technology into teaching are teachers’ attitudes and beliefs towards technology.

If teacher’s attitudes are positive towards the use of educational technology then they can easily provide useful insight about integrating of technology into teaching and learning process. Research has shown that teachers' attitudes towards technology influence their acceptance of the usefulness of technology and its integration into teaching and learning [7].

Computer’s teacher is shown positive attitudes towards technology because of their computer experience relates positively to their computer attitudes. Computer experience relates positively to their computer attitudes. The more experience teachers have with computers, the more likely that they will show positive attitudes towards computers [8].

A review of the research through observation and interview with teachers who interest and supported e-learning/Edmodo still do not use it. There are schools have carried out a lot of projects in e-learning. However, the teachers had problems about sharing online resources among themselves. There was also a lack of online communication with each other.

2. Methodology
This research investigated the perception of teacher of using e-learning/Edmodo in educational activities. This study uses components of case study by descriptive method with questionnaire, literature and documentation techniques. Therefore, this research focuses on a single case: e-learning/Edmodo application in educational activities that was experienced by teachers. The aim of the use of these methodologies is to gain perceptions of the teachers participated in the study.

The study population was obtained from teachers who know and ever use e-learning/Edmodo from diverse subject in secondary level of school in Pasaman, city of West Sumatera. The samples have chosen by purposive sampling. It consists of 20 respondents. The study was conducted for one week to answer questions in the form of questionnaires.
Table 1. Respondent by subject and gender.

| No | Subject                     | Gender | Number of teachers |
|----|-----------------------------|--------|--------------------|
| 1  | Programming                 | 1      | 1                  |
| 2  | Networking                  | 0      | 1                  |
| 3  | Natural Science and Mathematics | 0     | 3                  |
| 4  | Economic Science            | 1      | 0                  |
| 5  | Computer Science            | 5      | 5                  |
| 6  | Automotive and Machine      | 3      | 0                  |

Base on table 1, the mayor samples were from computer teachers. In other word they have base acknowledge about computer/ICT and computer experience.

3. Results and Discussion

Teacher perceptions were investigated in terms of three aspects: Effects of the use of this e-learning/Edmodo in teachers’ perceived motivation towards their educational activities, perceived usefulness and perceived ease of use.

Table 2. Abbreviations used for teacher perception questions.

| Abbr. | Description |
|-------|-------------|
| SD    | Strongly Disagree |
| D     | Disagree     |
| N     | Neutral      |
| A     | Agree        |
| SA    | Strongly Agree |

The scale of the questionnaire was Likert-type and its scales and abbreviations used in this results section was listed in Table 2.

Table 3. Descriptive statistics of teacher perception.

|                  | SD | D  | N  | A  | SA  | Mean | Std. Dev |
|------------------|----|----|----|----|-----|------|----------|
| Perceived Effects on Motivation | 0  | -  | 3  | 15 | 4   | 20   | 2       |
| Perceived Usefulness          | 2  | 10 | 2  | 10 | 1   | 5    | 10      |
| Perceived Ease of Use         | 4  | 20 | 3  | 15 | 2   | 10   | 8       |
| Overall                       | 2  | 10 | 2.67 | 13.4 | 2.34 | 11.6 | 6.67     |

As it is seen in the Table 3, 65% of teachers stated positive perception and only 15% of them stated negative perception for Perceived Effects on Motivation. Also, 55% of teacher reported positive perception about Perceived Ease of Use while only 35% of them reporting negative perception. As a result, the mean of the questionnaire data is 3.634 with standard deviation equals to 1.29 and more than a half of teacher reported positive perception about the use of E-Learning/Edmodo in overall.

4. Conclusion

The purpose of this study was to develop a valid and reliable scale for determining teacher's perceptions towards e-learning/Edmodo in teaching-learning process. The developed scale is questionnaire use Likert-type according to the conducted analyses in the study. The scale is thought to be effective in measuring teacher's perceptions towards e-learning/Edmodo in teaching-learning process in terms of effect, usefulness and ease to use [9].
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