

# The Validation of Digital Learning Materials Using Edmodo for Elementary School

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**Abstract-***This research aims to validate the learning materials of a digital classroom for fourth- grade students in elementary schools. The product development is based on the encouragement of learning innovation in elementary schools to fulfill students' needs. Therefore, digital teaching materials known as Edmodo are developed to create and maximize an interesting and amusing learning process. The products are validated by 3 expert validators known as learning planning expert, learning media expert, and teaching materials expert. The validation score of this product from the aspect of learning planning of digital classroom is 81.25, digital learning media is 80.26, and digital teaching materials are 81.25. It can be concluded that the products developed for digital classes for elementary schools are valid and can be used properly.*

**Keywords:** *Digital classroom, Edmodo, Learning Materials, Elementary School*

## I. INTRODUCTION

Information and Communication Technology (ICT) that has been spread globally covers all aspects of life. Technological developments affect all aspects of life such as economics, politics, culture, art, and even in education. In education, ICT has many roles. It has become a diversion of the functions of books, teachers, and learning systems that were previously still conventional. The development of ICT in education has a positive impact and shows significant changes. There are changes in the way teaching develops in education. Information technology functions as a learning medium (Rahmi, Helsa, & Azrul, 2018) which can motivate students to learn (Hikmawan & Sarino, 2018). Today, distance and time are not significant problems for transferring knowledge. Many software and applications are made to facilitate this process.

One of the software or applications that are currently available and can be accessed online is Edmodo. Edmodo is a private microblogging platform developed for teachers and students with the priority of student privacy (Ekici, 2017). It is designed to stimulate students' willingness to learn in a more familiar environment anywhere and anytime (Hourdequin, 2014). In Edmodo, teachers can continue online class discussions, provide polls to check students' understanding individually based on performance or behavior, so that the teachers can easily track the students' progress (Ainiyah, 2015). The teachers can get input from the classroom through the students' interaction with quizzes, assignments, and posting discussions that can be used to see students' understanding.

Further, Edmodo facilitates e-learning to be done anywhere and anytime as long as it is connected to the internet (Ainiyah, 2015). It also helps the teachers who are unable to teach in a class by providing and uploading online learning material. The teacher can give assignments that the deadline for submission and assessment are determined. It cannot only be operated through a computer or personal laptop but also on a smartphone, especially Android-based smartphone. The users choose to use the mobile-based or web-based. So, if they don't want to install the software, they can open it directly at [www.Edmodo.com](http://www.Edmodo.com). The advantages of using smartphones include mobility and traffic control in Edmodo that can be done anytime and anywhere. Besides, Edmodo offers flexibility and broader opportunities to interact (Manowong, 2016). The students can also share their thoughts or ideas through their posts in Edmodo as easily as posting updates on Facebook. More precisely, Edmodo is also called "Teacher and Student Facebook" because the features offered are almost the same as Facebook. The complete learning features presented by Edmodo make it can be classified as software that can be used to manage learning or better known as the Learning Management System (LMS).

Al-Azhar Elementary School in Bukittinggi is one of 11 schools in the city that promotes the implementation of Digital Class. One of the applications used there is Edmodo. Edmodo is chosen because it is quite effective to be used in learning (Dayag, 2018; Fauzi, 2017; Muanifah, Widodo, & Ardiyaningrum, 2019; Purbasari, Ismaya, Suryani, & Djono, 2019). However, based on the results of observations and interviews that researchers did with the fourth-grade teacher of the school who had tried using Edmodo in the class saying that Edmodo was still considered to be limited in the term of accessing information and learning materials. It was found that teaching materials that utilize Edmodo's social network have not been fully implemented in the learning process.

The researchers found the problem or obstacle of students in using Edmodo application as a learning tool, including: (1) Teaching materials uploaded by teachers into Edmodo were only a softcopy book of curriculum 2013 book (2) Teaching materials had not maximized all features contained in Edmodo application (3 ) There were no teaching materials in the form of videos, images and other audio-visual media. This study aims to validate digital classroom teaching materials for grade IV elementary school. This product development is based on the innovation needs of learning in elementary schools to meet the students' needs. Therefore, the developed Edmodo-based digital teaching materials is hoped to maximize an interesting and fun learning process.

II. METHOD

The products were validated by 3 validators; learning planning expert, learning media expert, and teaching materials expert. The instrument is an assessment sheet that had gone through the process of judgment validity from the evaluation expert. Then, the validators filled out the product assessment sheet according to their respective fields. The data were analyzed descriptively to determine the level of validation of the products developed.

III. RESULTS AND DISCUSSION

Based on expert judgment, the product assessment score obtained:

Table 1. Validation result from the validators on Edmodo content for Digital class in Elementary School.

No	Assessment Aspect	Validation Score	Criteria
1	Content	81,25	Valid
2	Learning Media (LMS Edmodo)	80,26	Valid
3	Lesson Plan	81,25	Valid

Based on table 1, it can be interpreted that LMS content had been judged to be valid by the experts. The validator I assessed the content, display aspects, language, and graphic aspects. During the validation stage, the teaching materials had been revised several times according to the suggestions given by the validator. Furthermore, the validator provided a score according to the validation questionnaire. Based on the results of the assessment, it could be seen that the score was 81.25 with very valid criteria. This validation had been assessed based on basic competence and learning indicators, the material presented according to the needs of students, the readability of Edmodo's teaching materials, the sequence of learning had been in accordance with learning activities, teaching materials provided motivation and attraction, teaching materials provided features for interaction between students occurred, teaching materials had an attractive design and appearance. Based on the input from validator I, the teaching materials were revised by improving the command sentence for the image and background used.

Therefore, the validator II assessed the aspects of content, display aspects, language aspects, and graphic aspects. During the validation stage, the teaching materials had been revised several times according to the suggestions given by the validator. Furthermore, the validator scored the materials according to the validation questionnaire provided. Based on the results of the validation, the score was 80.26 with valid criteria. This validation was considered to be in line with the basic competence and learning indicators and the needs of students. Further, learning activities were in line with learning needs and the stages of activities were having a clear indicator for its instructional media. Besides, the sequence of instructional media display was systematic, instructional media provided motivation and attractiveness, instructional media provided space for interaction between the students and provided complete information. Based on input from validator II, the instructional media was revised according to the input and suggestions were given by improving

material display to avoid confusion of the students about the material being taught, as well as the duration of the video.

Then, the validator III assessed the aspects of identity, learning objectives formulation, material selection, methods, details of learning steps, learning resources, and assessment. During the validation stage, the teaching materials had been revised several times according to the suggestions given by the validator. Furthermore, the validator gave the score according to the validation questionnaire provided. Based on the results, it was scored 81.25 with very valid criteria. This validation was considered to have deficiencies in the term of basic competence section and learning indicator. However, the material presented was in accordance with the needs of students. The learning activities were also in accordance with learning needs, methods, and learning steps. All of these aspects had been coherent. Next, the selection of learning resources and assessment were appropriate. Based on input from the validator, the learning planning was revised according to the input and suggestions are given that was by revising inappropriate basic competence and the learning objectives. The following was the assessment of the validation result of instructional materials developed using Edmodo application which was developed after the revision. The data from the validation of teaching materials from expert validators were presented

Based on the results of data analysis, the validation of teaching materials by experts was in the average of 81.00. This point indicated that the teaching materials were very valid. Therefore, it can be concluded that the teaching materials developed were in line with the curriculum needs. It can be also assumed that the developed Edmodo-based thematic teaching materials were very valid with a percentage of the overall average score of 81.00. This assessment toward the developed instructional materials indicated that teaching materials can be used as a thematic learning resource for the students.

This validation stage was needed to test the level of validity of the product to be tested to the user. The validity means that the assessment had provided accurate information about the media being developed (Firdian & Maulana, 2018). The developed teaching material was declared to be valid if it had fulfilled the requirements that had been set both in terms of content and construct characteristics. It was said to be valid too if the product components were based on the principle of knowledge. These aspects were called content validity. Furthermore, these components must also be related consistently to each other or also called construct validity. In this study, the validation was further broken down into product validation carried out on content, language, display, and graphics.

The validity of Edmodo Thematic-based teaching materials involved 3 expert validators. This expert validation conducted to assess new products designed to identify its weaknesses and advantages (Sugiyono, 2015). The validation results from the experts were collected and then analyzed to find the average score of each indicator and each aspect.

The validation stage that had been carried out has created valid content or teaching materials through LMS Edmodo for the students. Edmodo strongly supported e-learning with various advantages such as the ease to send files, images, videos, and links (Wankel & Wankel, 2011). It also strongly supported multimedia content such as audiovisual. Edmodo also provided high interactive opportunities between the students and students, the students and teachers, and the students with material (Alshawi & Alhomoud, 2016). Some theories said that the instructional media that use audio-visual materials can provide many benefits as long as the teacher played an active role in the learning process (Rahmi et al., 2018). Teacher-student relations remained the most important elements in the modern education system today. The teacher must always be present to give the subject matter with the help of Edmodo.

#### IV. CONCLUSION

It can be concluded that the products developed for digital classes for elementary schools are valid and suitable to be used in the elementary school level. The learning product validation process takes into account the criteria of the ideal product that want to be developed. Besides, the next researcher can use this Edmodo digital class material in grade IV elementary school.

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