Development of Online Teaching Materials for Accounting Subjects in the Covid 19 Era

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Abstract
This research is a development research (R&D) with the aim of knowing the level of need and the level of feasibility and practicality of online teaching materials on accounting subjects with the subject of recording expenses and income. The population of this research is class X majoring in Institutional Financial Accounting as many as 120 students with a sample of 40 students of SMK Negeri 2 Sidenreng Rappang with non-probability sampling technique by purposive sampling. Online teaching materials were developed with the validation process of media and material experts, then teacher and student responses with questionnaire instruments, and limited trials. The expert validity instrument was used to measure the validity test, while the questionnaire was used to test the practicality of the product assessment using a Likert scale. The data obtained from the validators and respondents were then analyzed using a descriptive percentage technique. The results of the assessment by the validator with an average value of 94.25% illustrates that the online teaching materials developed are declared very feasible and very practical to use in the process of teaching and learning activities systematically on line.

Keywords: development, online teaching materials, accounting.

Introduction
The quality of education is a direct consequence of a change and development of various aspects of life. The demand for the quality of education is the most important requirement to be able to answer the challenges of change and development. However, the impact of the Coronavirus Disease (COVID-19) pandemic in Indonesia has affected various sectors of life, including the education sector, leading to the closure of schools, madrasas, universities, Islamic boarding schools and other formal educational institutions. In response to the increase in cases in Indonesia, the Minister of Education and Culture issued Circular Letter Number 4 of 2020 regarding the policy for implementing the Learning From Home (BDR) process. Every educational institution starting from early childhood education, secondary to tertiary education has taken a policy to conduct online learning at home (Ferdiansyah, N, Yakub, et al., 2021). This learning model is intended so that the learning process continues in the midst of the COVID-19 pandemic (Mansyur, 2020). This is also in accordance with UNESCO's recommendation on March 4, 2020, which supports the implementation of large-scale distance learning programs that schools and teachers can use to reach students. Distance education is closely related to the...
content (Permendikbud No. 24 of 2012 article 1) concerning distance education which is often called PJJ is education in which students are separated from educators and learning uses various learning resources through information and communication technology.

Education plays an important role in creating quality individuals (Yulaika, 2016). Science and technology have brought very significant changes to various dimensions of human life, both in economic, social, cultural and educational, therefore, so that education does not lag behind the development of science and technology, it is necessary to make adjustments. In addition, the development of science and technology increasingly encourages renewal efforts in the use of technological results in the learning process. In learning activities there are several components including: objectives, learning materials, assessments, methods and tools or teaching materials.

The teaching materials here include all materials used in teaching, including the media used by the teacher. This is in line with the opinion of Nurhikmah (2020: 715) that "teachers are expected to be able to design innovative, creative, efficient and effective learning media so that they can increase the activeness of students in the learning process". In addition, the learning process requires educators in the education unit to develop teaching materials at the formal primary and secondary education levels. (Pattaufi, 2019) states that times continue to develop rapidly, various technological advances follow every pace of development of the times and all of these have an impact on changes in human lifestyles, including in the field of education today.

So that the use of ICT, especially the use of computers in various fields can improve performance and activities are carried out quickly, precisely and accurately, this will increase work productivity (Ferdiansyah et al., n.d.). Schools in Indonesia, both primary, secondary and vocational schools use computers as a medium of learning. (Rais, 2018) As a vocational education, Vocational Schools are required to prepare themselves to face the era of global competition in order to produce highly competitive, skilled, and qualified workers who are relevant to the demands of today's workplace. Learning at Vocational High Schools (SMK) equips students with a series of activities that hone skills to prepare themselves for the world of work and industry (Nurmayanti & Ferdiansyah, 2021).

Advances in technology produce many types of media that exist in order to achieve learning objectives. One of them is a flipbook maker which is used as teaching material or learning media. The term flipbook is taken from a children's toy which contains a series of different pictures, if opened from one page to another, it will show that the pictures seem to move (Searmadi, 2016). However, it is still contrary to the situation in the field because there is still a lack of online learning materials that can use Android independently which can be accessed widely. This fact has led to the need for the development of more, more diverse, and easily accessible online teaching materials at school and at home.

The development of student potential can be done by implementing a productive and attractive development of teaching materials for students. Educators in the learning process must be able to understand the characteristics of the subject matter and the characteristics of students so that learning becomes effective, efficient, and fun so that knowledge can be conveyed properly. Preparation of appropriate teaching materials is the responsibility of educators with the aim of the selected teaching materials attracting students' attention. the presence of teachers as directors of learning activities, textbooks as information and other media are also needed to improve student learning activities. One of the facilities to meet learning needs in the form of teaching materials that can fully contain text and media, can be found in the form of e-learning. E-learning teaching materials are also known as internet or web-based teaching materials. In addition, e-learning teaching materials are also referred to as online teaching materials. All of this cannot be separated from the role of educational technology as a tool for developing and designing multi-dimensional teaching materials. Online teaching materials are teaching materials that are prepared, run, and utilized with online media (Lestari et al., 2015). This causes the world of education to require innovations that are in accordance with advances in science and technology. Online teaching materials create interesting learning, foster motivation, reduce dependence and make it easier to learn each goal to be achieved.

Online teaching materials are one of the most important components of supporting learning. Moreover, online-based teaching materials are still rarely used in certain areas. Online teaching materials are one of the teaching materials that really support the independent learning process of students. Good online teaching materials are teaching materials that are designed systematically and based on the applicable curriculum, so that they can achieve the expected competencies. With online teaching materials, students can study alone or in groups, however, considering the current development of science and technology (IPTEK) requires everyone, especially educators, to be able to interact with technology.

The development of information and communication technology also affects the progress of innovation in teaching materials. One of the teaching materials is online teaching materials. Software that can assist teachers in developing teaching materials such as lecture maker software, crossword, crocodile chemistry, Lectora inspire and flipbook. Flipbook has many supporting features or advantages, including being able to produce interactive media, learning media, teaching materials and being able to create animations so that teaching materials can attract
students' attention. Researchers use flipbooks as online teaching materials which are expected to be able to help the teaching and learning process in schools.

The main problem is enthusiasm, less active learning of students, and the attractiveness of student learning is still relatively low. One of the reasons is because teachers still use student activity sheets as the main teaching material, and students experience boredom at home during the Covid-19 attack. According to the level of student saturation arises because students study at home and most students think they are not in school, the teacher must create innovations in the learning process by creating a pleasant learning atmosphere and compiling interesting and creative teaching materials that can attract students' attention in learning according to (Koesnandar 2015).

Based on initial observations in January 2021 with a class X teacher at SMK Negeri 2 Sidenreng Rappang that in the learning process, especially in Accounting learning, student learning outcomes decreased because the teaching materials used in learning during Covid 19 had not been able to optimize the potential of students. So it is necessary to develop teaching materials with more varied learning activities and based on students' multiple intelligences. One solution to overcome this problem is to develop online teaching materials using flipbooks. Therefore, researchers are interested in examining the need for the development of online teaching materials and the level of validity and practicality of online teaching materials for accounting subjects at X SMK Negeri 2 Sidenreng Rappang.

Methodology

This research is a type of research and development (R&D). The research was carried out in January-March 2021 at SMK Negeri 2 Sidenreng Rappang. The development model used is the 4D model.

The definition stage aims to explain and limit some of the scope of development which consists of 4 steps including early-late analysis, material analysis, task analysis, and specification of learning objectives (Mujiyanti, 2020). The design stage aims to design learning devices with the stages of selecting media and formats, as well as initial designs (Rahmawati, 2021). The development stage (develop) aims to produce products in the form of appropriate and practical online teaching materials (draft I) then obtain (draft II) using research instruments validation sheets and questionnaires for student and teacher responses (Adawiyah, 2020). The dissemination stage (disseminate) aims to carry out socialization to teachers and students through an online platform for online teaching materials that have been validated and tested on respondents (Safitri, 2020).

The population in this study were students of class X SMKN 2 Sidenreng Rappang which consisted of three classes with a total of 120. The total population used as a sample was 40 students. The data collection uses an expert validity instrument for the feasibility test where the validation results are analyzed with a validity index while the questionnaire is for practicality testing in product assessment with a Likert scale (Irsalina, 2018). All data obtained from validators and respondents were analyzed using a descriptive percentage technique using the following formula:

$$\text{Persentase} = \frac{\sum (\text{jawaban x bobot terpilih})}{\text{n x bobot terpilih}} \times 100\%$$

Source: Munandar in (Ferdiansyah et al., n.d.)

To determine the level of validity of the developed learning media, the assessment qualification criteria are used based on the following:

<table>
<thead>
<tr>
<th>No</th>
<th>Achievement level</th>
<th>Qualification</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>81-100%</td>
<td>Very good</td>
<td>Very valid, no need to revise</td>
</tr>
<tr>
<td>2</td>
<td>61-80%</td>
<td>Good</td>
<td>Valid, no need to revise</td>
</tr>
<tr>
<td>3</td>
<td>41-60%</td>
<td>Fairly good</td>
<td>Fairly valid, needs to be revised</td>
</tr>
<tr>
<td>4</td>
<td>21-40%</td>
<td>Not good</td>
<td>Invalid, needs to be revised</td>
</tr>
<tr>
<td>5</td>
<td>&lt;20%</td>
<td>Very poor</td>
<td>Very invalid, needs to be revised</td>
</tr>
</tbody>
</table>

Source: Arikunto in (Ferdiansyah, N, & Nurmayanti, 2021).

Meanwhile, to determine the level of practicality, students and teachers as respondents were directly involved in the process of testing online teaching materials. Participation is required from respondents to obtain data that can be used as a basis for determining the level of practicality. To determine the level of practicality of the product being developed, the following assessment qualification criteria are used:

<table>
<thead>
<tr>
<th>No</th>
<th>Percentage range (%)</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>81 % – 100 %</td>
<td>Very practical</td>
</tr>
<tr>
<td>2</td>
<td>61 % – 80 %</td>
<td>Practical</td>
</tr>
<tr>
<td>3</td>
<td>41 % – 60 %</td>
<td>Quite practical</td>
</tr>
<tr>
<td>4</td>
<td>21 % – 40 %</td>
<td>Less practical</td>
</tr>
<tr>
<td>5</td>
<td>0 % – 20 %</td>
<td>Not practical</td>
</tr>
</tbody>
</table>

Source: Akbar in (Ferdiansyah et al., n.d.)
Results and Discussion

The initial stage carried out is the initial-late analysis, materials, assignments, and specification of learning objectives. The analysis was carried out on the syllabus, learning implementation plan (RPP), and collecting some literature and determining limits in the subject of recording expenses and income so that conclusions can be drawn to determine final abilities, study materials, and indicators of competency achievement, thus online teaching materials developed can be used in the subject of recording expenses and income.

The preparation of online teaching materials as draft I begins with designing the cover of online teaching materials, components of online teaching materials, including: (1) introduction, concept maps, online teaching materials instructions, basic competencies (KD), competency achievement indicators (GPA), and learning objectives; (2) related materials, sample questions and practice questions; (3) student worksheets (LKPD) containing the title, student identity, instructions, learning objectives, related materials, and student activities. The feasibility test used an expert validation sheet instrument and was analyzed with a validity index which was included in the very feasible category and could be produced after revision (draft II).

The online teaching materials (draft II) were tested for their practicality to teachers and students of class X at SMKN 2 Sidenreng Rappang. The practicality test conducted by the trial was limited to teachers and students aimed at generating responses to online teaching materials. The questionnaire consists of 16 statement items consisting of 4 components. After testing the validity and practicality, then providing online teaching materials to teachers through flipbooks so that later students can use these online teaching materials as references or references in learning activities. The distribution of online teaching materials with the subject of recording expenses and income aims to introduce online teaching materials that have been developed and meet the criteria so that teachers can use them for learning activities.

Validity of online teaching materials

Validation was carried out by a lecturer in the Department of Accounting and Educational Technology, a validator from a private university and SMKN 2 Sidenreng Rappang. The practicality test consists of 6 components which are administered to teachers and 4 components to class X students at SMKN 2 Sidenreng Rappang. The practicality test serves to determine the level of practicality of the online teaching materials that have been developed. The results of the analysis of the practicality test are presented as follows:

Based on the graph above, the results of the analysis of the 6 components of the practicality test obtained an average value of 96% which is classified as very practical, meaning that online teaching materials can make it easier for educators to update (upgrade) learning materials in accordance with the demands of technological developments, improve insight and skills, and make it easier to deliver abstract subject matter (Jazuli, 2017).
Based on the graph above, from the analysis of the 4 components of the practicality test, an average value of 96.25% is obtained which is classified as very practical, meaning that online teaching materials make it easier for students to access learning materials at any time and repeatedly, helping students who are unable to attend to take part in learning in class for various reasons so that students can continue to follow, learn, understand, and strengthen their mastery of learning material by students (Jazuli, 2017). In addition, interesting and fun online learning media can help eliminate boredom in the learning process (N et al., 2021).

**Conclusion**

Based on the results of the research and discussion, it can be concluded that online teaching materials for accounting subjects with the subject of recording expenses and income for class X SMK Negeri 2 Sidenreng Rappang are really needed and feasible and practical to be used as learning activities by educators and students online during the Covid 19 pandemic.

**Bibliography**


Bibliography
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