The Development of Taxation Learning Media Based on Articulate Storyline

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ABSTRACT

This study aims to (1) develop interactive learning media based on articulate storylines in tax courses; (2) test the feasibility of learning media developed based on the validation/assessment of expert teams and students; and (3) test the effect of the use of learning media developed on academic performance. This study is a type of research and development by following the ADDIE development model (Analysis, Design, Development, Implementation and Evaluation). Still, here the model used only until the fourth stage (4) that is implementation. Validation was carried out by the Lecturer Supervisory Team and the Media Expert Lecturer Team. It was tested on 35 students of the Digital Business study program, Faculty of Economics, State University of Medan. The study was conducted from June to September 2020. The data collection technique was carried out using a questionnaire. Media validation was carried out by the Media Expert Lecturer Team and was tested on 35 students of the Digital Business study program at the State University of Medan in 2019. Broadly speaking, the results of the validation of the media aspect were classified as a Very Appropriate category, with the percentage 94.14% and the results of field trial assessments were also classified as a very feasible category with the percentage 92.87%.

Keywords: Taxation, Articulate Storyline, Learning Media

1. INTRODUCTION

Education is an important investment and has a strategic role in the creation of quality human resources [1]. The higher the achievement of the quality of human resources will also correlate with good education [2]. Deciding to continue to innovate in learning is an option that must be chosen by educators [3]. Mastery of science and technology is an indicator of success in achieving the quality of education and improving human resources [4]; [5].

The tax course is an essential field for accounting students to master. However, for most students, taxation is still considered difficult to study [6];[7]. Student difficulties generally come from the assumption that taxation contains formulas and rules that are difficult to understand [8]. The difficulty in understanding taxation courses is generally caused by a lack of innovative teaching materials used by educators in the learning process [9];[10]. It is in line with the results of observations in several tax classes in the past semesters that almost all students have computers and laptops. The existence of adequate facilities has not been able to support the implementation of classroom and independent learning. Lecturers as teachers use teaching materials and conventional media in delivering subject matter.

Based on these observations, here students need some interesting, innovative and easy-to-use teaching materials to convey messages well as appropriate visualizations to provide understanding to students [11]. [12] defines teaching materials as any form of material used to help educators or instructors in carrying out the learning process in the classroom. So teaching materials are all forms of material that can support learning. One form of teaching material includes modules [13]. The current module is divided into two categories, namely print modules and digital modules. Digital modules have the advantage of being able to display some material using interactive learning media [14]; [15].

One type of learning media that can be applied in the classroom is interactive learning media. The application of interactive learning media (IT-based) is the primary demand in the current era of globalization [16]. [17] states that technology applied to learn should be
integrated with learning models to achieve learning objectives. Interactive learning media makes it easier for
teachers to teach abstract material [18]. Some interactive
learning media are considered capable of explaining
phenomena that occur in nature and presenting them in
the classroom [19].

An articulate Storyline is a software that can be used
as a media for presentation and conveying information.
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medium for presentation and conveying information.
Articulate Storyline is suitable for use as a learning
medium that can compete with adobe flash media [20].
The difference from Adobe Flash, which is the media
most often used as interactive learning media today, is
that Articulate Storyline does not require programming
languages or scripts in the manufacturing process. All
animation commands can be done with the “trigger”
menu so that they can make it easier for teachers to create
interactive learning media. The Articulate Storyline
program has several advantages, namely simple smart
brainware. The program also makes it easy for users to
publish online and offline so that it can be formatted on
CD, word processing, personal pages and LMS [21].

The results of interviews with students who took
taxation practicum stated that taxation material was
challenging to understand, there were no references in the
form of modules and too brief explanations because of
the short time. As a result of the lack of teaching
materials, it can hinder the achievement of learning
objectives so that the development of teaching materials
needs to be done [22]. In addition, it is necessary to have
an appropriate learning method and model to adjust the
time and material available.

Based on this background, efforts are needed to
increase the role of learning media [23] in teaching the
concept of taxation, especially for explaining concepts
that require practicum through interactive media. Based
on the problems that have been described, the researchers
felt the need to develop an interactive digital learning
media for taxation courses. Learning using interactive
media Articulate Storyline is expected to increase the
effectiveness of learning in lectures. Robertson and East
revealed in their research that only 32% of students got
good scores. However, after the learning media using the
Articulate Storyline was implemented, there were 95%
who met the grades according to the set curriculum [24].

2. METHOD

This study uses a research development method
(Research and Development) that is usually used to
produce a certain product and test the product’s feasibility
[25]. This research produces a product that can be used
in the learning process in the form of an interactive
application based on the articulate Storyline. Research on
the development of a product for learning media is
carried out to determine the feasibility of the media in the
learning process. Therefore, it is necessary to have a
research design that has stages so that this research can
run well. The stages of research carried out refer to the
ADDIE development model, which includes Analysis,
Design, Development, Implementation and Evaluation
[26].

The stages of this research design are carried out
through the analysis stage (such as; curriculum and
material analysis, media analysis and user target
characteristics), the design stage (such as; designing the
material items to be presented, compiling the material
texts, and arranging the flow of material delivery in the
form of a flowchart), the development stage (such as; The
making of media using the articulate storyline software,
assessment by validation experts, revisions), the
implementation stage (such as; limited trial), and the
evaluation stage (such as; media revision from the results
of suggestions and comments after a limited trial).

This research on the development of interactive
learning media based on the Articulate Storyline in the
Taxation course was conducted at the Digital Business
Study Program, Faculty of Economics, State University
of Medan. This research was conducted over a period of
time, from June to September 2020.

The research subjects consisted of media validation
and trial subjects. The subjects of media validation
included two media expert lecturers of the educational
technology department. Product trials are field trials. The
field trial subjects are students who are taking the
Taxation course in the current semester as many as 35
students. The design of this application product is done
using the Articulate Storyline application.

The collecting data in this study is using a
questionnaire/media validation and testing instruments.
The media validation instrument contains a media
validation sheet for instructional media experts while the
test instrument is a sheet for assessing the quality of
learning material by students (used in field trials). The
validation and material assessment instruments were
adapted from Walker & Hess [27].

3. RESULTS AND DISCUSSION

The steps that have been taken in application
development include (1) the identification stage of
student problems starting from their character and
abilities as well as their motivation in lectures, (2) the
product design stage starting from designing the subject
matter in taxation courses, including a) Taxes Income, b)
PPh 22, c) Income Tax 23, d) Income Tax 25, and e)
Income Tax 26. At this stage, a flowchart design is also
carried out which explains in detail the components and
layout of the instructional media with the help of a paid
application, namely Articulate Storyline, (3) then
proceed with the application testing phase by the lecturer as a media expert by using a validated instrument that measures in terms of interface and multimedia as well as modification and revision of the product based on the recommendations and suggestions of the media experts. (4) after going through the validation stage by media experts, the next stage is testing the feasibility of direct applications to ± 35 students of the Digital Business study program at the State University of Medan, both testing the feasibility of concepts, materials and potential.

Figure 1. Main Menu Display

Figure 2. Material Menu Display

Product validation was carried out by two media experts’ team, they are the lecturers who teach the Taxation Subject. Product validation was carried out using media assessment instruments that have been validated by the research instrument validator in terms of content and construct. The assessment by media experts was assessed based on two aspects, namely the interface aspect with percentage 94.29% and the multimedia aspect with percentage 94%, in other words, the validation of the media expert team produced average value 94.14% so that it could be categorized as very feasible. The following pictures are four diagrams of the assessment results from media experts.

Figure 3 Media Expert Assessment Diagram

Figure 4. Field Trial Assessment Diagram

The results of the field trial assessment to students of the developed learning media products were assessed at the validation stage consisting of aspects of the truth of the concept with percentage 93.33%, preparation of the material with percentage 94.17% and aspects of the potential implementation with percentage 91.11%. The average results of this Trial assessment are stated at 92.87% so that it can also be categorized as very feasible.

Figure 5. Exercise Menu Display
Based on the output table 4.5, the sig value is obtained. (2-tailed) of 0.000 < 0.05, it can be concluded that there is a difference in the average student test results between video conference-based learning and non-video conference learning.

4. CONCLUSIONS

The development of learning media in the Taxation course for the Digital Business Study Program at Medan State University has been successfully developed using the Articulate Storyline application. Based on the assessment by media experts’ team, the percentage score was 94.14%, so it was included in the very feasible category.

Likewise, the acquisition of the results of student field trial assessments resulted in a percentage of 92.87% and was also categorized as very feasible, therefore, the development of Taxation learning media is worthy and feasible used as a learning media and independent learning resource.

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REFERENCES


