

Conference Paper

Development of a Mapping Program to Teach Online-Based Financial Accounting Courses During the COVID-19 Pandemic

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ORCID:*Nurika Restuningdiah*: <http://orcid.org/0000-0001-8329-3993>**Abstract**

The purpose of this research was to develop a mapping program for online-based teaching, using the instructional learning design based on ICT. Developing the mapping program consisted of three stages: the analysis stage, design stage and development stage, where each step had an output that supported the process of content development of the learning media. This mapping program is expected to support online learning for the Financial Accounting course during the COVID-19 Pandemic.

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1. Introduction

The emergency condition of COVID-19 has made students study at home a lot, so digital textbooks are needed to help the learning process. With the nature of learning, lectures can be carried out with the Online Learning model (online) where education is carried out online, namely distance learning in delivering the material and presentations and face to face.

Online courses are a form of e-learning. The concept of the online system, according to Picciano (2002), is to present online learning materials and provide space for students and teachers to interact. The communication of the online course is divided into two, namely synchronous communication and asynchronous communication. The concept of synchronous communication is that the learning process is carried out online and occurs in real-time. In contrast, the asynchronous transmission of the learning process can be done not in real-time (Branon & Essex, 2001) and (Murphy et al., 2011).

An open online course is a form of an online course that is presented openly on the website, which can be followed by anyone who wants to study Intermediate Financial

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Accounting I. This is also known as MOOCs (Massive Open Online Course). MOOC's offer three advantages, namely: Accessibility - MOOCs, usually low cost or free, create traction for recruiting potential participants, Student Engagement - MOOCs are designed to increase student engagement. Improving student learning outcomes is one of its primary goals. Lifelong Learning Experiences - MOOC allows participants to pursue specific interests or continue their professional development. MOOCs provide lifelong learning experiences and educational opportunities for disadvantaged communities as a way to encourage lifelong learning.

Learning media can help students understand the existing material. Learning media can help deliver messages to message recipients. And make the learning process more effective to improve the quality of learning (Dwiyogo, 2013; Malik and Agarwal, 2012; Teoh and Neo, 2007). Research on the development of multimedia in a student-centered learning environment (MMSLE) indicates an increase in student achievement, liveliness, and motivation (Leow and Neo, 2014).

The presentation of the Introduction to Accounting course material will be packaged in an attractive and friendly manner because not all participants in the open online course have prior knowledge of accounting. The presentation of the material is gorgeous and can be understood easily by participants. The Introduction to Accounting course is an introductory course, which is not only a compulsory subject in the curriculum of the accounting study program but is also a compulsory subject in the curriculum of all study programs in the Faculty of Economics, such as the management study program and development economics study program. The Introduction to Accounting I course is designed to provide understanding and skills to analyze, record, classify financial information, and prepare financial reports for service companies and trading companies. The subject relates to accounting information and financial statements as a reporting medium and the processes that produce this information.

The competencies of the Introduction to Accounting course are: after taking this course, students are expected to be able to: 1). Explain the function and importance of accounting in making economic decisions comprehensively at an introductory level, 2). They are identifying users of financial statements, 3). Have an understanding and skills about the characteristics and basic concepts of accounting, financial recording procedures, and the accounting cycle 4). Explain the development of the accounting cycle conceptually, 5). They communicate in the business world with accounting languages (concepts, procedures, and techniques), 7). Prepare, compile, interpret and analyze financial reports, 8). Make use of data generated by accounting.

Introductory Accounting material will be packaged in an attractive and friendly manner because not all participants in the open online course have prior knowledge of accounting, so an effort is made to present exciting material that can be easily understood by participants.

2. Research Method

Activities undertaken are: analyzing the needs of participants in open courses in studying the Introduction to Accounting course. The analysis is carried out on all existing material, as well as the required learning media, for example, video tutorials, cases, ppt, interactive learning media, as well as a question and evaluation exercises, which match the existing sub-material.

Kegiatan yang dilakukan adalah: menganalisa kebutuhan dari peserta mata kuliah terbuka dalam mempelajari mata kuliah Pengantar Akuntansi. Analisa dilakukan terhadap seluruh materi yang ada, serta media pembelajaran yang diperlukan, misalnya: video tutorial, kasus, ppt, media pembelajaran interaktif, serta latihan soal dan evaluasi, yang cocok dengan sub materi yang ada. In this analysis phase, an analysis of the expected competencies, syllabus, review of existing references, and interviews with lecturers in the Introduction to Accounting subject who are members of the Financial Accounting (Expertise Group is also carried out to obtain input on the types of learning media right for each sub material. This analysis stage is very important, because the results of this stage will be used as the basis for the design stage of the Open Introduction to Accounting Course. The output of this stage is: Mapping Program

The program map for designing Web-based learning is actually analogous to the syllabus or course outline of traditional learning, but with some adjustments. The program map is the embodiment or result of instructional design activities. The program map format is as follows:

- 1) Course identity (name, code, credits, etc.)
- 2) Learning objectives (subject competences and essential competencies as well as indicators of achievement;
- 3) The results of the instructional design are presented in tabular form, including primary competency columns, indicators, material (subject & subject), learning objects (reading text, pictures, photos, videos, animations, simulations, test questions, etc.), lecturer communication/interaction learning activities, learning resources, and time allocation.
- 4) The primary reference is the Financial Accounting textbook (Weygandt et al.,2019)

3. Results and Discussion

The analysis phase is the program mapping of learning media based on the learning strategy on each topic. The program mapping is shown in table 1 below:

4. Mapping Program

Course Name: Introduction to Accounting

Course Description: This course discusses the basic principles, recognition, recording, and presentation of financial accounting transactions of trading and service companies and making financial reports of trading and service companies.

Learning Outcomes: Mastering theoretical concepts of financial accounting independently and comprehensively so that they have the optimal ability to compile and interpret Financial Statements according to accounting standards based on religious norms and professional ethics by utilizing developments in knowledge and technology so that they can contribute to the life of society and the state

Course Learning Outcomes:

1. Students master the concepts, scope, and basic principles of financial accounting for trading companies and service companies so that they have an adequate fundamental understanding of financial accounting principles and their differences in different types of companies

2. Students logically, critically, creatively, analytically, systematically, and innovatively make recognition, record, and presentation of transactions in trade and service companies and adhere to professional ethics to create fair and unbiased financial reports.

3. Students are analytically able to make financial reports for service and trading companies based on applicable accounting standards and by upholding the ethics of the accountant profession

Topic 1:

Introduction to Financial Accounting, Type of Business Ownership, Accounting Standards, Accounting Information Users, Careers in Accounting, Accounting and Ethics, Accounting Standards, Historical Cost Principles & Fair Value Principles, Assumptions (Monetary Unit, Economic Entity)

Learning Strategy:

a. Asynchronous Independent: The lecturer sends the material in the form of slides (PowerPoint), then continues with giving questions that must be done by the group

b. Collaborative asynchronous

1. Identification of the various types of companies
2. Identification of differences in financial statements (pdf)
3. Identification of the multiple parties who need financial reports

Evaluation:

- a. Multiple-choice questions
- b. True and False Question

Topic 2:

Basic Accounting Equations, Accounting Cycle, Components in Financial Statements (Assets, Liabilities, Equity), Analysis of Accounting Transactions

Learning Strategy:

a. Asynchronous Independent: Lecturers send materials in the form of:

- a. Learning videos about the basic accounting equations
- b. Video on doing practice questions

b. Collaborative asynchronous

The group studied the Introduction to Accounting Digital book and did assignments. The results are sent to e-mail

Evaluation:

Practice questions with google form

Topic 3: Recording Process, Debits, and Credits, Journals and Journaling; Ledgers and Book-entry; Account Group; Trial balance

Learning Strategy:

a. Asynchronous Independent: Lecturers send materials in the form of:

- a. Learning videos about the basic accounting equations
- b. Video on doing practice questions

b. Collaborative asynchronous

The group studied the Introduction to Accounting Digital book and did assignments. The results are sent to e-mail

Evaluation: Practice questions with google form

Topic 4: Adjustments, Accrual Basis, and Cash Basis; Income and Expense Recognition; Benefits of Adjusting Journals, Types of Adjusting Journals.

Learning Strategy:

a. Asynchronous Independent: Lecturers send materials in the form of:

- a. Learning videos about the basic accounting equations
- b. Video on doing practice questions

b. Collaborative asynchronous

The group studied the Introduction to Accounting Digital book and did assignments. The results are sent to the e-mail

Evaluation: Practice questions with google form

Topic 5:

Adjustments. Accrual Basis and Cash Basis; Income and Expense Recognition; Benefits of Adjusting Journals, Types of Adjusting Journals.

Learning Strategy:

a. Synchronous Virtual Lecturers make presentations and guide practice questions online

b. Asynchronous Independent: Lecturers send materials in the form of:

- a. Learning videos about the basic accounting equations
- b. Video on doing practice questions

c. Collaborative asynchronous

The group studied the Introduction to Accounting Digital book and did assignments. The results are sent to the e-mail

Evaluation: Practice questions with google form

Topic 6:

Service Company Financial Report, After Adjustment Trial Balance, Work Sheet, Income Statement (Comprehensive), Statement of Changes in Equity, Statement of Financial Position, Statement of Cash Flow

Learning Strategy:

a. Asynchronous Independent: Lecturers send materials in the form of:

- a. Learning videos about the basic accounting equations
- b. Video on doing practice questions

b. Collaborative asynchronous

The group studied the Introduction to Accounting Digital book and did assignments. The results are sent to the e-mail

Evaluation:**Practice questions with google form****Topic 7:**

Completion of the Accounting Cycle

Closing Journal, After-Closing Trial Balance, Reversing Journal, After-Reversing Trial, Correction Journal

Learning Strategy:

- a. **Asynchronous Independent:** Lecturers send materials in the form of:
 - a. Video learning about the Completion of the Accounting Cycle material
 - b. Video on doing practice questions
 - c. PPT uses the CAMTASIA or OBS program

- b. **Collaborative asynchronous**

The group studied the Introduction to Accounting Digital book and did assignments. The results are sent to the e-mail

Evaluation:

Practice questions with google form

Topic 8:

Accounting for Trading Companies

Trading Company Business Activities, Cost Flow (Periodic System & Perpetual System), Recording of Purchase and Sales Transactions, Adjustment Journal

Learning Strategy:

- a. **Asynchronous Independent:** Lecturers send materials in the form of:
 - a. Video learning about the Completion of the Accounting Cycle material
 - b. Video on doing practice questions
 - c. PPT uses the CAMTASIA or OBS program

- b. **Collaborative asynchronous**

The group studied the Introduction to Accounting Digital book and did assignments. The results are sent to the e-mail

Evaluation:

Practice questions with google form

Topic 9:

Completion of the Trading Company Accounting Cycle

Closing Journal, Trading Company Financial Report, Special Journal, and Subsidiary Ledgers

Learning Strategy:

a. **Synchronous Virtual** Lecturers make presentations and guide practice questions online

b. **Asynchronous Independent:** Lecturers send materials in the form of:

a. Video learning about the Completion of the Accounting Cycle material

b. Video on doing practice questions

c. PPT uses the CAMTASIA or OBS program

c. **Collaborative asynchronous.** The group studied the Introduction to Accounting Digital book and did assignments. The results are sent to the e-mail

Learning is a process between learners, teachers, and teaching materials. The learning media help the learning process. The utilization of optimal learning media can improve the effectiveness of learning activities. The utilization of the learning media is to select appropriate learning media as necessary and exciting for students. The benefits of learning media are: clarifying the presentation of messages, overcoming the limitations of space, time, and sense power. Appropriate and varied learning media can generate learning arousal and can overcome teacher difficulties due to differences in background and experience of students, while the curriculum and educational materials that are determined to the students are the same (Dwiyogo, 2013)

The theory that became the basis for research and development of accounting learning media is the theory of constructivism. The essence of the constructivist learning theory is that each student must find and change complex information independently. The constructivist strategy is often called student-centered teaching because of its emphasis on students as active learners. Lecturers act as facilitators who help students find and change information independently.

The characteristic of the relation between constructivism learning theory and learning media is the value of the character that emphasizes the students to learn independently, finds problem-solving alone. The lecturer becomes the student facilitator in solving the problem. Self-study exercises demonstrate the self-learning process in a digital magazine by students and some examples and content summaries that support student learning independently. Multimedia supports a constructivist learning environment. Multimedia technology helps students solve a problem using self-exploration collaboration and active participation (Malik and Agarwal, 2012).

5. Conclusion

This initial research has produced a mapping program of the Introduction to Accounting course to enhance students' abilities in self-study. The mapping program displays the material presented in the form of the word, ppt, video, and music and containing learning media material. The mapping program also includes evaluations in the shape of interactive quizzes that can display the score after the student's work and practice questions to train students' understanding.

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