

## IMPLEMENTATION OF BLENDED LEARNING DESIGN FOR OPERATIONAL MANAGEMENT COURSES (COLLABORATION BETWEEN FACE TO FACE, WEB, YOUTUBE AND TELEGRAM APPLICATIONS)

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**Abstract:** *The challenges and opportunities in industrial revolution 4.0 especially education is thinking and acting for students in learning that also in management science. So students can improve the quality of learning, achievement in the industrial and business world today which is full of speed, innovation and uncertainty in the era of disruption that necessitates change in thinking patterns and learning patterns that are more comprehensive in accordance with technological development in the internet. Blended learning is an integrative learning model that can improve student motivation and learning achievement hypothetically in this study. The study was conducted for 4 months with qualitative analysis tools with a population of management study program students using the control class and the class given treatment. The right strategy formulation will be obtained after the hypothesis is answered through this research. This research is to make blended learning method which combine online and conventional learning. that uses YouTube videos, telegram apps, web-based, and conventional learning. This research resulted in 61 percent of students strongly agreeing with the implementation of blended learning, 21 agreeing and 8 quite agreeing with the implementation of blended learning based on youtube, web and telegram apps.*

**Keywords:** *Blended learning, management, student, operational management course*

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### 1. Introduction

The success key in future development for the Indonesian is education. Because with education it is hoped that each people can improve the quality of life so they can build a civilized civilization.

Today, conventional learning (classical learning) is no longer a choice, because in the midst of very rapid advances in technology and information, it is necessary to have a variety of methods that provide more opportunities for students to learn by utilizing various sources that utilize technology and information. not only from lecturers directly but also can used internet. The learning process needed to take advantage of information technology, without leaving the pattern of direct guidance from the teacher and the use of learning resources more widely. This concept is often termed blending between electronic learning and conventional learning so it is called blended learning.

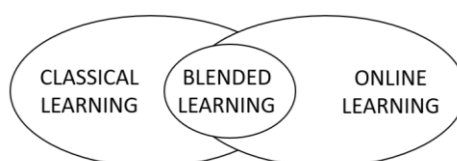


Figure 1: Blended Learning Position (Elenena Mosa, 2006)

The most challenging in education today is the change of mindset, learning patterns and the way students act in developing creative innovations in various fields, especially in the field of management science. So by this situations, students can improve the quality of learning, learning achievement and the ability to understand interesting phenomena and challenges in today's industrial world which is full of uncertainty in disruption that necessitates changes in thought patterns and learning patterns.

The digital era has many threats if it is not carefully monitored, this condition eliminates 1 to 1.5 million jobs in a period of 10 years due to the role of replacing humans with automatic machines. In addition, 65% of the world's school- and college-age students will be working in a profession that doesn't exist today.

From a pedagogical point of view, management is a dynamic science especially the contextuality of management can be taught more creatively and innovatively in accordance with the nature of management science which is effective and efficient, especially to compensate for the rapid turbulence of information technology.

Moreover, at this time at the University of Kuningan, lecturers are encouraged to provide teaching materials with a recommendation of two meetings from fourteen meeting which must be done with internet-based e-learning or blended learning.

Terminologically, blended e-learning emphasizes on internet usage like opinion Rosenberg (2001) that blended e-learning refers to use of internet technology to transmit a series solutions that can increase knowledge and Skills.

Izzudin Syarif in his blended learning result found there is a significant difference between motivation and student achievement using the blended learning model and students who using a face-to-face learning model, there is an increase in student motivation and achievement significant application of the blended learning model, other research by Murdiono Purbo Prasetyo found that this system (blended learning) allows to adding variation to the lectures process and make it run more efficiently. Other research by Pradhana, Rizka conclude that blended learning is effective when implemented in the Automotive Body course as pointed out by the indicators of the learning in class (classical learning), the learning through e-learning, and the learning through field study whose effectiveness is high. The effectiveness of the blended learning is also shown through the students' learning result in which the learning completeness is 100% with the average score of 81.59.

Lecturers as professional educators who are the embodiment of the tri dharma of higher education in the current industrial revolution era must improve their understanding of expressing themselves in the field of digital media literacy, understand the information that will be shared with students and find analysis to solve scientific problems through media literacy digital. The hope is that all parties must be able to increase strategic collaboration in designing future education patterns and change the performance of the education system which can develop the quality of student mindset and strengthen the digitalization of web-based education so that blended learning strategies can be created.

## **2. Research Method**

A. This research is located at the Faculty of Economics, University of Kuningan and this experiment was conducted in the even semester which was designed for 6 meetings (6 weeks) from 9 September to 15 November 2019 with a total research time of 4 months until the research report was made.

B. The population in this study were Grade III students. The composition of the average number of students are 100 person by 3 classes, this population has relatively the same basic technology and information capabilities.

C. The research procedures carried out e-learning module with the blended learning method are as follows:

1. Study literature. This stage is looking for materials related to the making of e-learning using the blended learning method.
2. An implementation study of the learning content using the blended learning method.
3. Looking for support programs in making research.
4. Prepare hardware, software, analyze and develop learning plans and learning media.

#### D. System Design

This research is design to develop a comprehensive blended learning model. In this condition, the synchronous (at the same time) and asynchronous (at different times) learning methods are combined into one. In this way, researchers do not only carry out conventional learning, but also online. For online learning used a learning website and learning videos uploaded on the YouTube platform and for student discussion used Telegram apps. Meanwhile, conventional learning is carried out face-to-face in the classroom.

The appearance of e-learning system with blended learning method can be seen in Figure 2. In making this learning design, learning material is provided by the lecturer through online and conventional learning. Learning material content that has been systematically compiled is uploaded and available online on the youtube video platform and the smartbis.tech website for independent learning. While conventional learning is through face to face in class. Learning material videos uploaded in Youtube base on schedule that arranged with course syllabus. In addition, lecturer provide narration learning materials file to the website. The results of the categorization resulting from the learning design are as follows:

1. Learning materials: includes tutorials, lecture notes, case studies in video, text and quiz formats.
2. Lecturer: are educators who are experienced and according to qualifications.
3. Online Learning: consists of three application platforms, namely: youtube for video learning media, smartbis.tech website for text and or file that can be downloaded as learning media and telegram chat app for quizzes and discussions.
4. The use of online learning media is according to a schedule that has been compiled based on the course syllabus.
5. Conventional Learning: is doing face to face in class.

E. Software or Application Installation The software used in the making of this research include:

This research is use wordpress installation for the smartbis.tech domain, google suite installation, telegram chat application and youtube creator studio and other support software such as image and video processing support.

#### F. Developing Learning Plans

Learning design is a process carried out by lecturer in guiding, assisting, and directing students to achieve predetermined learning goals with steps to prepare learning materials, use of teaching media, use teaching methods and approaches, and assessment in an allocation of time to be implemented within a certain time. In preparing the learning design, it must be based on the course syllabus. The learning design compiled in this blended learning, namely:

1. Preparation of the Mapping Program
2. Compilation of Youtube Videos
3. Development of the Web-Based Course Form
4. Compilation of Face to Face Form
5. Compilation of the Assessment System

### 3. Results and Discussion

In designing e-learning with this blended learning method, researchers will combine online and conventional learning. So that the research assignment entitled "Design and Implementation of Online Learning Content with the Blended Learning Method" will result in learning through videos uploaded on the YouTube platform, text learning materials uploaded on the website developed under the name smartbis.tech and telegram chat applications for quiz. and discussion, and finally face to face as a conventional phase.

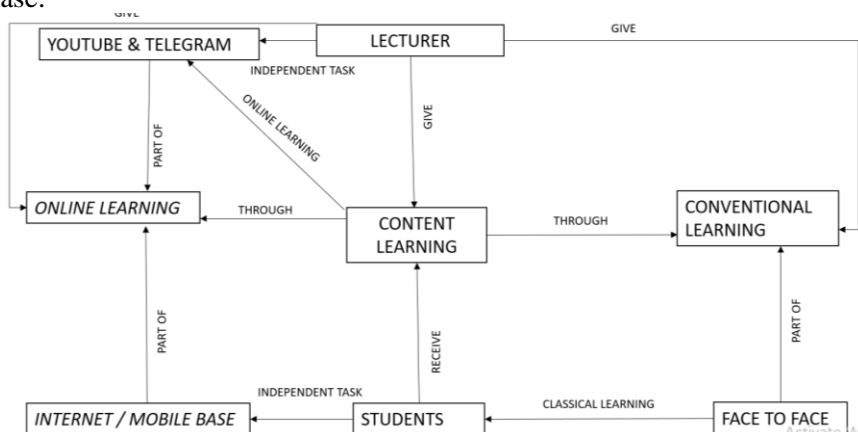


Figure 2: Blended Learning Design Learning

#### A. Learning Through Youtube Video

In designing video learning media, researchers chose youtube as a sharing platform video because youtube is the most popular video platform in Indonesia, and also the application is installed by default on every android-based smartphone which makes it familiar and easy to use by users, researchers provide video as a learning media on youtube. User can access all the content made by researcher wherever and whenever as the advantages of e-learning.

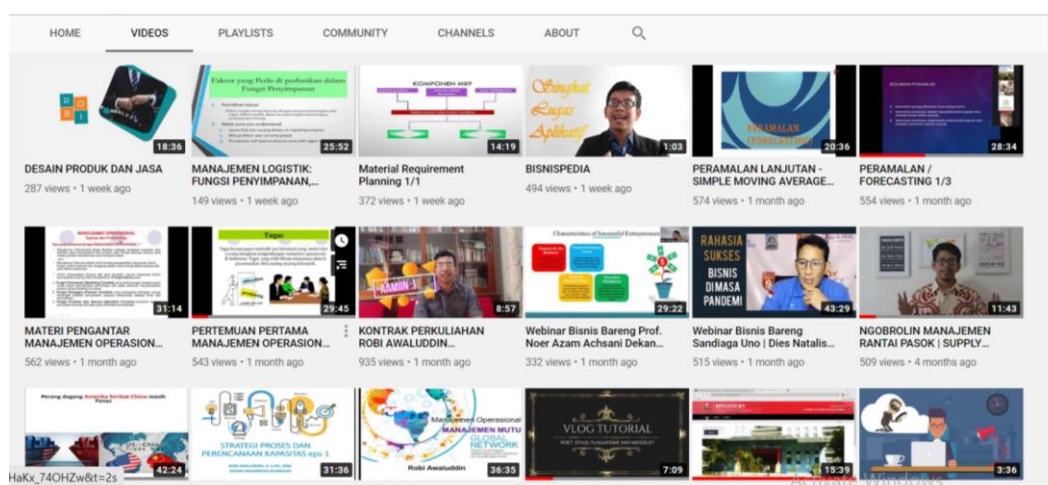


Figure 3: Learning Video on Youtube

B. Learning materials, assignments, exercises and exams are entirely delivered via the internet. In this Web-based course, there are learning materials which are divided into several lecture topics. The topic of this lecture is arranged based on the mapping program created in the beginning semester

There are two model of learning material which uploaded in to website, articles and files that can be downloaded in web site smartbis.tech



Figure 4: Learning content on website

C. Discussions, consultations and questions and answers are carried out via an internet based chat application called telegram. Telegram was selected because in fact that the number of members in the group is not limited, and multiplatform applications can be run independently on laptops and smartphones. In this study, researchers made telegram channel and classroom applications. The learning design via telegram is divided into two, the first is a channel that functions to convey information directly to all members, while a class discussion forum is created through a group called smartbis classroom.



Figure 5: Telegram Application for Learning Discussions

D. Learning through Face to Face is learning condition where lecturers and students are in the same space and time. This learning is included in the Synchronous Learning method (at the same time). This situation also called conventional learning.

E. In this study, the model testing is divided into two, the first is testing the application of the blended learning model and the second is testing the initial stage of student understanding of the blended learning model.



The application of the blended learning model provides new experiences for students and produces readiness for implementing learning through blended learning media as follows:

From the initial recapitulation of the design of the blended learning model, it is known that of the 90 sample students, 61 students said they strongly agreed that blended learning could increase student motivation in lectures, 21 students agreed, eight students gave sufficient opinions. From this it can be concluded that students are actually ready to accept the concept of blended learning, especially through popular applications that are currently owned by students, especially YouTube, telegram apps and websites.

No	Amount	Value
1	61	Very Agree
2	21	Agree
3	8	Enough
4	0	Less Agree
5	0	Disagree

Table 1. The results of the Student Readiness Research Questionnaire for the blended learning model

#### **4. Conclusion**

This research begins with creating YouTube content and learning websites content, that was developed accordance the Study Learning Plan that was prepared at the beginning of the semester, then blended learning method combines four integrated learning methods, namely face to face, learning videos designed on YouTube, telegram social media applications and learning website, finally respondents have positive response in readiness for the development of this blended learning model in operation management course.

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