THE ROLE OF MASSIVE OPEN ONLINE COURSES (MOOC) IN TRAINING DURING THE COVID-19 PANDEMIC

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Abstract: The importance of technology in the current era has brought the world of education to issue learning innovations that are ready to meet the demands of the times. Including an online-based open course or commonly called the Massive Open Online Course (MOOC). This study aims to find out how the role of the MOOC in education and training during the COVID-19 pandemic is, so it is hoped that you can access some content related to training through the platform provided by MOOC. As well as providing an understanding of the benefits of MOOCs during the COVID-19 pandemic. Because this study uses a literature review approach, the method applied to obtain and provide information in this study uses descriptive qualitative. The results of this study related to the role of MOOC in the COVID-19 pandemic period; many platforms can be used, including some based on the MOOC PP PAUD and DIKMAS websites and some using social media such as WhatsApp, Facebook, Telegram, Twitter and the like. Regarding MOOC with training, it can be a solution during the COVID-19 pandemic in terms of its application, namely MOOC as a course.

Keywords: Open Online Courses, MOOC, Training, Covid-19

I. Introduction

Open education is identical to the pattern of open access to learning resources. More and more attention is being received in terms of open education or distance learning. The assumption of a relaxed attitude about the practice of teaching and learning critical and creative thinking skills. This has become a new term, including licensing of open-source learning, providing open access to courses from higher education, and developing scalable platforms often compared to commercial software. (Husain, et al., 2017).

Online learning is one of the efforts of primary and higher education institutions to offer more courses and content online to learners digitally. Today's online learning is open, offering a means to connect thousands of students and institutions from diverse locations, backgrounds, and cultures on global topics and interests. (Pappano, 2012. Jenkins, 2013. Lombardi, 2013. Bralic and Divjak, 2018).

Advances in information and communication technology are one of the causes and triggers of change in education. With the discovery and development of the internet, a giant network that connects billions of data or information centres around the world and individuals or global communities has changed the process of seeking and developing knowledge in various educational institutions. A scientist can easily find the reference material he wants in real time at a very, very low cost through a search engine. Meanwhile, by utilizing electronic mail, scientists from various countries can collaborate effectively without having to leave their laboratory. By accessing a video repository site, a student can view recordings of lecturers' lectures from

Massive Open Online Course (MOOC) is learning in the form of an open online course with the potential for many participants. The word massive means huge registration potential; thousands of participants register from all over the world. Open has several meanings, such as opening registration for anyone with internet access regardless of the previous participant's field of knowledge. This can also mean at the outset, being free to register for a learning program based on participants' interests. Some opinions mean Open should refer to open access content, which means that the content is free and available and must have Creative Commons license status so that the content can be downloaded, stored, and even adapted for one's development material (with the inclusion of references). Online means that the delivery of learning is done online. Meanwhile, the nature of the Course shows that there are several provisions regarding the Course's operation, such as registration, start and end dates of learning, teaching content, and assessment tools (Decker 2014 in Krause and Lowe 2014).

The digital era with internet network facilities that can be accessed easily today has slightly changed learning from a manual system to an online system. Especially now that the world is experiencing a COVID-19 pandemic, which encourages all residents to do activities at home, including training and education in the teaching and learning process. In order to support these activities at home, you can access open online courses that have unlimited capacity called Massive Open Online Courses (MOOC). (Moqbul 2020).

As practitioners or educators under the Ministry of Education, Culture, Research and Technology (Kemendikbud-Ristek), especially early childhood education teachers, who concentrate on MOOC training, of course, need to facilitate the nation's generation with pedagogic skills through open online courses that anyone can access. Even. So that it can support the understanding of educators in increasing their competencies.

Therefore, the MOOC training held by PP PAUD and Dikmas Central Java will provide a space for educators to receive the freedom of training to increase their ability and creativity in making teaching materials without requiring training.

II. Literature Review

Massive Open Online Course (MOOC) is learning in the form of online courses on a large scale and open to allow unlimited participants and can be accessed via the web. In addition to providing traditional course materials such as videos, reading materials, and problem discussions, MOOC also provides an interactive user forum that helps build a community for students, teachers, and teaching assistants. MOOC is the latest development in terms of distance (E-Learning). The results of this study are the development of MOOC for Communicative English (CE) training and an Instructional Design (ID) model that is suitable as a guide in designing courses. (Rafiq, Hasim, and Yunus. 2019).

Massive Open Online Courses(MOOC) in a traditionally taught course yields specific research findings in blended learning; several key elements make this model unique and successful. MOOC appeals to students and chooses one that positively affects motivation. Research results integrate MOOC in traditionally taught courses to detect trends, progress and general guidelines for successful implementation of online content from a strategic point of view in a way that supports an in-depth approach to learning. (Amin, 2017. And Bralic, Divjak. 2019).
With current technological developments, more learning systems have turned to the internet. One of the alternatives for internet-based learning is the Massive Open Online Course (MOOC). In addition to having an openness to all circles, MOOC also provides several features that its users can use. (Yuan, L and Powell, S 2013) provides an overview of the two main features of the MOOC, including:

1. Has open access that can be used by all groups and is free of charge (free).
2. Scalability in this program is designed to provide a training course space that has unlimited space so that regardless of the number of participants, they can still be served well.

According to Laura Czerniewicz, Andrew Deacon, Mary Anne Fife, Janet Smalland Sukaina Walji, producing an open online course has varied until now because there are still production costs to create content for the advancement of this online course. (Evi Fatimatur, Rusydiyah, 2019). Advantages and Disadvantages of MOOC

1. **Advantages**
   1. With the agreed pre-course and post-course(evaluation) as an advantage of this course, it is able to increase stimulation for users/learners. Other facilities in terms of introduction to usage tutorials, examination and homework assessment systems, as well as several profiles of educators, are clearly described, making it very easy to apply. The existence of hands-on can also provide a solution related to usage. In general, this hand-on is almost the same as a short lab tutorial on the topic in the form of a module. Hands-On is also facilitated by the use of Visual Studio as a form of development tools.
   2. In the video learning facility, MOOC provides a transcript (subtitle) feature that can be clicked and adjusts to the duration of the video, it is very helpful for students to explore information using foreign languages. Besides being able to enjoy the videos directly, it turns out that the videos and transcripts can also be downloaded as a personal collection and can be repeated without spending a quota.
   3. Apart from the advantages above, another advantage that is no less important related to this course is the existence of a discussion forum. With this facility, users can have the opportunity to ask other users on the same course form plate. In addition to asking questions, users are also given the opportunity to choose discussion topics and can participate in voting regarding answers to problems in the discussion topics. There is also a progress feature in which users can find out the stages during learning on this MOOC Platform course.
   4. The advantage that is the mainstay of the MOOC Platform is that partners support it from trusted educational institutions, such as Harvard University, MIT, Berkeley, Boston University, etc. So that this affects the course to be of higher quality, both in terms of methods and some learning content. (David Lawrence, 2017)

2. **Disadvantages**
   1. It is still not interactive and learning so far still seems to be only theoretical. As with programming material, in its application it must be done and practiced intensely. In this case, active learning needs to be applied so that it can be more helpful.
   2. Exam questions are only in the form of multiple choices; obstacles like that have actually become a common thing related to the imperfections of human-made technology. Although multiple-choice exam questions are considered easier, they impact the assessment of students' understanding. As a solution, if it cannot be forced in the form of non-multiple choice questions, it is necessary to have a different form of question or a variety of questions to provide a little information regarding the evaluation of the learning process.
3. The advantage of the MOOC Platform is that there is a discussion forum, but according to the PC Magazine website, MOOC, especially Edx, needs to update and add to the discussion feature section which is considered to still have gaps. This means that learners have little access to teachers, teaching assistants, and course participants. Because this review is only focused on Edx, despite all the shortcomings that it considers, there are still ways to improve it, PC Magazine gives Edx a 4.5/5 rating, ahead of other big MOOC lists, such as Coursera (4/5) and Udacity (3/5). (“CompareEducation at PC Magazine”, n.d.).

Training management is the implementation of management functions through management, supervision, and arrangements that are carried out continuously during the training aimed at remembering and repeating what has been obtained in training can be said to be successful if the goals and expectations in training are achieved. (Hanalik 2001:23).

Based on the description above, the researcher can conclude that training management is management which in its implementation is to support effective and efficient training program activities. So training management is a necessary tool to achieve training objectives effectively. Through good management, a training program is expected to improve and develop the personal, professional, and social abilities of the trainees and a vehicle for promotion for individuals in an organization.

The benefits of training organized by the company stated by Noe, Hollenbeck, Gerhart, Wright (2003), namely: 1). Increasing employees' knowledge of culture and external competitors, 2). Helping employees who have the expertise to work with new technologies. , 3). Helping employees to understand how to work effectively in teams to produce quality services and products, 4). Ensuring that the company culture emphasizes innovation, creativity and learning, 5). Ensuring safety by providing new ways for employees to contribute to the company when their jobs and interests change or their skills become absolute, 6). Preparing employees to accept and work more effectively with each other, especially with minorities and women.

III. Research Methods

This research is processed through a literature review with a qualitative descriptive method approach using several stages, starting from the preparation, implementation and processing of research data, using library research techniques through several supporting materials sourced from books, journals, websites and other article materials by looking at the suitability of the theme, about the online course learning model or commonly known as the Massive Open Online Course (MOOC)

This research also takes material from a show provided by the youtube channel as a supporter and reinforcement of understanding related to MOOC and how to evaluate which is a solution in education. The following is an explanation of the stages in this research process.

1. Preparation Stage This stage is done by collecting data through various sources, such as books, journals, or media that support the theme of this research.

2. Implementation Stage In the second stage, it has begun to turn the previously collected data into raw data. It is ready to be analyzed, classified and examined to be processed if the reader can accept it.

3. Processing Stage The last stage is the stage of data processing using content analysis techniques and then classified based on the themes raised in this study.
IV. Research Results And Discussion

MOOC at a glance
MOOC stands for Massive Open Online Course, which when broken down literally, each of the words has its meaning, just like the word Massive which means broad. The word open reflects an identity from MOOC, which leads to freedom for its users (open to anyone). While the word online describes that this MOOC can be accessed using the internet network, and the last is the course which is usually defined as a course (exercise). (Pras Dianto, youtube.com 2016).

Glenna L. decker explained that MOOC consists of the words Massive Open Online Course. Massive is more directed to the word big, meaning that the MOOC here has a large form, including oversized in terms of thousands of registrants with origins from all over the world. Open has the meaning of being open, meaning that MOOC has an openness to anyone who is connected to the internet and regardless of where they study from. (MOOCology 1.0 2012).

So MOOC is understood as a platform in the form of unlimited (broad) online course facilities supported by teaching staff from various universities and institutions related to their fields, by having thousands of students from several countries and with different backgrounds. Two academics founded MOOC from the University of Prince Edward Island, Canada, named Dave Cormier and Bryan Alexander in 2008. It aims as a form of learning in the form of an online course that is also championed by Canadian academics named Stephen Downes and George Siemens, both of whom are one of the driver of open educational resources. (UNESCO, 2013).

The description of the form of the MOOC learning process in its early days was by using interactions through discussions, blog posts, Second Life, and online meetings. This simple learning model can lead MOOC to a period of popularity, as evidenced by the increasing number of enthusiasts. In 2011, MOOC opened all eyes to better focus on getting to know him by expanding the course network.

As an example of the popularity of one of the developments of this course is the opening of the theme "Introduction to Artificial Intelligence", which has attracted 160,000 eyes to follow it (Yuan and Powell, 2013). Over time, MOOC has reached an extraordinary level of popularity, initially it was available abroad, but now it has penetrated in Indonesia with various MOOC platforms that are spread to meet the community's needs regarding general knowledge, with easier access and all free of charge. However, even though in the end, this Platform provider facilitates paid certificates as proof that students are serious about participating in activities within the MOOC scope to add skills that are indeed recognized in the world of work. (Medium.com, 2012)

MOOC Learning Model
Physically, MOOC is not much different from conventional learning in which there are teachers, syllabus, teaching materials and even exams. This equation can also be seen from the division of implementation time sessions, MOOC generally divides learning time into two sessions. The first session of introduction and the last session of the exam. Likewise, conventional learning begins with introductions and then finally evaluations using the exam model. Of course, from some of these similarities, there are differences that they both have, especially in their implementation. What distinguishes it from conventional learning models are:

1. MOOC teaching and learning process is not carried out in a classroom in a building, but is carried out in a digital/electronic classroom wherein the delivery of material, assignments...
and practice questions, everything is packaged in the form of videos and presentation slides and then delivered online.

2. MOOC is open (free), there are no graduation requirements or age restrictions to register and join. The important thing is to operate computers and cellphones, have a good internet network, and participate by accessing the MOOC Platform that has spread in cyberspace.

3. MOOC is designed to be able to provide an unlimited amount of space. Therefore, considering a large number of educators and students, the interaction in the teaching and learning process at MOOC is not individual, meaning that its activities are communal and collective.

**MOOC Principle**
A principle is an explanation of why something has happened. Meanwhile, according to Merril (Oka Arya; 2015, 88) the principle explains the causal relationship of an event. Because the process and rules of learning in the classroom are different from online learning. In its application, there are four main principles owned by MOOC, (Darling Hammond, Wei, Richardson, and Orphanos, 2009). Among others:

1. Multiple Voices, as participants learn about various perspectives from teachers and administrators and their students, researchers and experts in their fields. Because MOOC is not designed by one or two experts who present lectures online. However, various experts are chosen as a form of advantage to meet the tastes of students.

2. Self-directed learning, as participants can describe their experiences by identifying their goals, choosing to use learning resources, and deciding what, when, and how to participate in discussions and activities to advance their learning.

3. Peer-supported, a learning process by supporting each other among participants. Through online discussion, monitoring one another’s work, written assessment ideas, and recommending multiple sources, multi-source learning from groups, and participating in Twitter and courses to exchange ideas.

Job-connect learning, the process of learning by adjusting the job. Through case studies, classrooms, and schools, linking together in developing activity plans and other activities that focus on participants' work and critiquing problems from the Exercises and data are informed in decision-making in their own classrooms or areas.

**Various MOOC Platforms in Foreign Countries and in Indonesia**

**1. MOOC Platforms in Overseas**
In 2012 the existence of MOOC as an E-Learning Platform was increasingly recognized by the emergence of several online course sites that are quite popular to date, such as Coursera, Edx, and Udacity (Jacoby, 2014). However, MOOC uses English, which is one of the obstacles for users who are not fluent in English. To find out more clearly about the above MOOC platform sites, pay attention to the following detailed explanations:

a. Coursera was founded in 2012 by Stanford academics Daphne Koller and Andrew Ng. Coursera is a non-profit education company with the latest current research, status as the largest MOOC Platform which has 82 partner universities, 386 courses and more than 3.5 million registrants (students). If you want to join, visit the following web address https://www.coursera.org.

b. Edx, in 2011 MIT (MassachuttsInst's of Technology) launched the MITx Platform, then incorporated into a non-profit venture between MIT and Harvard University, called edX.
The consortium now has 28 members, including: MIT, Harvard, Berkeley, Texas System University, Wellesley College, Georgetown, Australian National University, cole Polytechnique Fédérale de Lausanne, University of Toronto, RICE, TU Delft, and McGill. And has 63 courses available and 1 million students who are already registered. To join the Edx class, please visit the following address https://www.edx.org

c. Udacity was founded by Sebastian Thrun in 2011 after his Stanford class MOOC experiment. For-profit companies are actually for-profit, and work with individual academics as well as with technology companies, to develop technology and courses related to computer science. It currently offers 25 courses and has around 400,000 users. The website address is https://www.udacity.com.

2. MOOC Platforms in Indonesia
Although in Indonesia online courses are still not popular. However, a survey agency sourced from dailysocial.id has shown that around 21% of respondents have used MOOC both in Indonesian and in English. Meanwhile, some respondents who did not use MOOC reasoned that they did not have free time, limited internet connection, and because of the cost for certain subject matter. However, the survey results have given a positive signal to the role of MOOC by stating that 91% of respondents agree that MOOC can help participants increase their knowledge and understanding of the lessons taught in schools (Zebua, 2017). Meanwhile, the various local MOOC platforms can be seen from the following details:

a. Zenius Education was started on July 7, 2007 by Sabda PS and Medy Suharta. Zenius facilitates access to educational services through Indonesian language videos packaged online through the Website, some are packaged offline via CD and DVD media. To find out more about the features and appearance of Zenius itself, visit the address at https://www.zenius.net.

b. UCEO, stands for Ciputra Entrepreneurship Online University. UCEO is one of the platforms that provides knowledge about entrepreneurship or entrepreneurship for free and can be learned anytime and anywhere according to the agreement. Ciputra University Surabaya founded this Platform in 2015. To find out more about UCEO, please visit https://ciputrauceo.com.

c. MOOCs UT, established on March 13, 2014 by the Open University (UT). This distance learning system was established to coincide with UT’s 30th anniversary. This is a form of anticipation of the commemoration of the Global Open Education Week. For complete information, visit http://moocs.ut.ac.id.

d. My Code, is a MOOC Platform that only focuses on technology, especially coding Python, PHP, Java Script, and the like. Ganis founded this Platform since 2013, and currently the number of members is around 4,500 with different backgrounds. Please visit the web address to learn more about the Platform at https://codesaya.co.

e. Indonesia, was established to coincide with Indonesia's 70th birthday, which is August 17, 2015. This Platform provides very broad knowledge to the nation's generation, although in reality, the origin of the participants is not only from Indonesia but also foreign participants. Since a week after the launch of this Platform, it has attracted a lot of public attention, this discourse is evidenced by the number of participants who reached 1000 local registrants and 65 registrants from outside. For complete information, please visit (CNN, 2015) https://www.indonesiax.co.id.
MOOC’s role in training during the covid-19 pandemic
Along with the times in which it is still dependent on technology, people are also required to be
technology literate. So to add or deepen, skills must be taken through technology as well.
Massive Open Online Course (MOOC) can be used to deal with boredom by studying or taking
courses using internet-based technology.
Although online courses have been around for a long time, there is still not much content related
to education and training in them, especially education and training in educational institutions.
Up to now, on average, online courses have focused on discussing online courses related to
social media such as WhatsApp, Facebook, Instagram, Telegram, Twitter and the like. But those
who learn through a site are still relatively rare.

V. Conclusion

Massive Open Online Course (MOOC), commonly known as open online courses, is a new
breakthrough in education. The emergence of MOOC in 2008 immediately received a positive
response from the community, so its movement grew rapidly every year. This is evidenced by
the increase in participants and also the spread of various new platforms throughout the world,
including Indonesia. Among them are Coursera, Edx, Udacity (Overseas Platform) and Zenius,
UCEO, MOOCs-UT, Kode Saya, and Indonesiain (Indonesian Platform).
Of all these scattered platforms, on average they already have thousands of participants and a
choice of course fields and experts who guide participants with different skills. The spread of the
MOOC Platform which on average is free of charge (free), but of the many existing platforms, it
is more focused on discussing general science. The problem of education and training is very
rare, but lately, there have been many emerging MOOC platforms based on education, especially
in science, which discuss guidance in education and training.
The platforms that study education and training are those based on the MOOC PP PAUD and
Dikmas websites. Some are using social support media such as WhatsApp, Facebook, Telegram,
Twitter and the like. Of all the average Platforms to join is still a fee although some are free.

VI. Recommendations/Suggestions

In order to improve the quality of education and training, it is necessary to improve MOOC-
based facilities with the theme of education and training, and so that all groups can access them,
free access features are also needed. So it received a positive response from the community.
For the next researcher, it can contain various contents that are able to have a positive impact on the
development of education in Indonesia through today's technological sophistication.

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