Applying of Blended Learning in Realizing Independent Learning in the 21st Century

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Abstract. The purpose of writing this article is the application of blended learning methods in realizing independent learning in the 21st-century era by paying attention to the principles, components and settings of blended learning. Blended Learning is learning that combines the application of direct learning in the classroom with online learning that uses information and communication technology through the internet network. The method of writing this article uses a qualitative approach with a literature study method. Blended learning can realize an independent learning education system in the 21st century with the hope that teachers are able to understand and pay attention to the application of blended learning principles, the application of blended learning components and the regulation of the use of blended learning. The application of the blended learning method can improve current and future student achievement with good and effective and efficient results.

Keywords: blended learning · independent learning · learning the 21st

1 Introduction

Education in Indonesia is currently being faced with conditions of change and great challenges, which were initially face-to-face learning to online learning and autonomous learning. This learning process focuses on the use of information and communication technology, the basis of which is digital media using the internet network. The internet network is the main source in supporting the learning process without the limits of space and time.

This condition supports the learning process in the era of the 21st century that we are living now. The high level of internet use needs to be used as a basis for determining a good strategy in the learning process to achieve the expected results. Therefore, with various problems, challenges, support and easy access to information and communication technology in learning, it is necessary to apply learning using the blended learning (BL) method.

Blended learning shows better results than other methods of direct learning to increase students' motivation, interest, and learning outcomes so that BL becomes a

trend and is widely used in leading universities in the world [17]. BL has a more effective influence than online learning or face-to-face learning on student learning outcomes [1]. The BL strategy is suitable for future learning considering that the use of information and communication technology in Indonesia is very broad [12]. Blended learning can improve student learning outcomes on average equal to or higher than students who study conventionally or fully online, although success rates vary between disciplines [10].

The blended Learning method is expected to help the learning process that was originally teacher-centered become student-centered. This effort is to facilitate the education and learning process carried out by teachers and students in managing learning activities. In addition, blended learning is ideal as a learning method in an independent learning education system [19]. Blended Learning is applied to accommodate the rapid development of information and communication technology in the 21st-century era without replacing face-to-face learning. With Blended learning, students will be able to compete and overcome educational challenges by taking advantage of available technological developments. Thus the attractiveness of the learning process will appear and obtain results by the expectations of teachers and students [18]. The establishment of an independent learning education system by the Minister of Education and Culture is to create pleasant learning conditions and a happy atmosphere independent learning education is applied so that teachers, students, and parents can get a happy atmosphere, and can overcome the problems experienced by teachers and students in the education system and learning process.

The concept of independent learning education which was sparked by Makarim during a speech commemorating National Teacher's Day (HGN) in 2019 stated that in the industrial revolution 4.0, the need for an independent learning education system is freedom of thought, meaning that teachers and students are given the freedom to develop innovations, freedom to learn independently and creatively.

Blended learning is expected as a learning model that can realize an independent learning education system to offer practical solutions in facilitating the learning process that cannot be done directly in the classroom, either due to time, location, or current circumstances. Therefore, blended learning as a learning method in the 21st century is expected to help an active and fun learning process for students and teachers in realizing a fun and happy independent learning.

According to Degeng, the strategy of organizing and delivering learning has an important role in providing and maintaining the attractiveness of the field of study or subjects, but the quality of learning also has an important role [4]. Why does the quality of learning also have an important role in the learning process? Because the quality of learning can affect the results obtained in learning. Furthermore, Degeng explained that "the quality of learning is always related to the use of learning methods or models that are by the needs in achieving the expected results with certain learning conditions [4]."

Thus, to achieve results by the expectations of both students and teachers, teachers need to have strategies for organizing and delivering learning, as well as the right quality of learning in this 21st century. Therefore, the purpose of writing this article is the application of blended learning methods in realizing independent learning in the 21st century by paying attention to the principles, components, and settings of blended learning.

2   Literature Review

2.1   Blended Learning

Blended learning is the process of combining various learning methods by combining physical and virtual resources. Blended learning is a learning model that combines face-to-face learning with online learning (e-learning). Staker (2012) said that blended learning is a formal education program model that is applied to help students learn through instructions and learning content provided online and independently of time, place, speed, and sequence of learning in the learning process [15].

Furthermore, Elliot explains that blended learning is a combination of several strategies and learning methods in optimizing the delivery of learning experiences for users [7]. The use of this strategy utilizes online learning media, which is web/blog based, without leaving the face-to-face learning process.

Then according to Allen, Seaman, and Garrett, defines blended learning, namely:

The definition of an online program or blended program is similar to the definition used for courses; an online program is one where at least 80 percent of the program content is delivered online and a blended program is one where between 30 and 79 percent of the program content is delivered online [6].

From the definitions of these experts, it can be concluded that blended learning is the mixing of two or more strategies or learning models to get the expected learning outcomes. Blended Learning is learning that combines the application of direct learning in the classroom with online learning that uses information and communication technology through the internet network.

2.2   Independent Learning

The concept of independent learning is based on the terminology of the meaning of the word "independent" and the concept of "Learning". According to the Big Indonesian Dictionary (KBBI), the word Merdeka has three meanings; (1) free (from inhibition, colonialism, and so on), independent; (2) not affected or exempt from prosecution; (3) not bound, not dependent on certain people or parties.

The concept of "learning" according to Sagala can be understood as an effort or practice to gain intelligence [14]. Then according to Sudjana, learning is not just an activity of memorizing and not remembering [16]. Learning is: (1) a process marked by a change in a person, which can be shown such as changing knowledge, understanding, attitudes and behavior, skills, abilities, and abilities, reaction power, acceptance power, and other aspects that exist in the learning process. Individual; (2) learning is an active process, the process of doing through experience; (3) learning is a reaction process to all situations that exist around the individual; (4) Learning is a goal-directed process; and (5) Learning is the process of seeing, observing, understanding something. So when we talk about learning, the principle is talking about how to change a person's behavior.

Independent Learning is a national education grand design that aims to fundamentally change in accelerating the birth of Indonesian human resources who are superior, characterized, intelligent, and competitive. Considering the current condition, the demand is so urgent to invest heavily in the development of the quality of human resources (HR),

because one of the targets is to prepare for the 2045 Golden Generation, welcoming 100 years of Indonesia's independence, with the achievement of levels of welfare, dignity, and dignity as mandated in UUD 1945 in the context of educating the nation's life and promoting the general welfare. Therefore, let us make an Independent Learning program policy a milestone for the advancement of education in Indonesia, as well as for the advancement of the Indonesian nation as a nation that excels in various fields.

2.3 The 21st-Century Learning

Twenty-first-century learning has been defined by various opinions, this is important for everyone to understand. The definition of 21st-century learning according to Donovan & Green is the recognition that every student needs to have knowledge and skills that can help them succeed in a diverse and more technology-centered global society so that students can master the content of knowledge and be able to demonstrate higher order thinking competence by using a creative and collaborative approach [5].

Then Greenstein states that students living in the 21st century must master science, have metacognitive skills, be able to think critically and creatively and be able to communicate or collaborate effectively [9]. While Morocco et al., state that life and learning skills in the 21st century are characterized by high understanding, critical thinking, collaboration and communication skills, and creative thinking [13]. Therefore, in 21st-century learning, the application of technology is the key to helping students achieve success in learning so that they can understand and have high-order thinking skills so that they can think critically, collaborate and communicate and think creatively to face global competition.

3 Methods

The writing of this article uses a qualitative approach with a literature study method that focuses on the results of writing related to the topics discussed. A literature study is a comprehensive overview of the research that has been done on a specific topic to show the reader what is already known about the topic and what is not known to seek rationale from research that has been done or for further research ideas. The topic of discussion in this article is the application of blended learning methods in realizing independent learning in the 21st century.

4 Result and Discussion

4.1 Blended Learning as a Method for Independent Learning

Blended learning in an independent learning education system is a method that can provide freedom and flexibility for teachers and students in carrying out the learning process in a pleasant and happy atmosphere. The determination of this method is expected to improve the results and quality of learning. This learning method can show better results to increase students' motivation, interest, and learning outcomes than face-to-face direct learning methods.

The blended learning method can accelerate the occurrence of social and cultural changes in the education system because this learning method meets the needs of learning in the 21st century. Blended learning has an influence on the transformation of education, where is acceptance of new ways or an improvement in society to meet the needs of the world of education. For example, teachers can play a role in building a generation that is capable of competence, character, new literacy skills, and higher-order thinking skills. In a way that is free to innovate for students, and can be more comfortable with life attitudes. Decision actions and approaches to all kinds of knowledge based on fun. Including being free and independent in using all learning media, both print media, namely books, modules, and worksheets, as well as electronic media, namely videos, and multimedia presentations and can also use online content.

Blended Learning as an innovative learning method is expected to realize an independent learning education system set by the government so that teachers and students can implement it in learning. Thus enabling students to be independent in learning in class, as usual, online students can also learn independently, free to seek media sources and learning resources according to the tendency of millennial children who prefer to learn with gadgets, and students can freely determine their schedule when to access their online classes and where they will access them.

4.2   Blended Learning as a Learning Method in the 21st Century

The Industrial Revolution 4.0 that occurred in the 21st century, it was an era where human life was oriented toward technology, such as mastery of technology, cyberspace, big data, and others. Teachers play of role in building the millennial generation by maximizing the convenience of technology to create competent students, have character, have new literacy skills, and have high-order thinking skills. Hamidulloh and Rahmadi say that educational institutions are the basis for determining intellectual intelligence, creative aspects, critical thinking, communication, and collaboration [11]. Educational institutions must strengthen new literacy and revitalize digital-based curricula. Curriculum revitalization refers to the five basic values of good students, namely resilience, adaptability, integrity, competence, and continuous improvement.

The rapid development of technology provides a lot of information that can be absorbed by students, both at home or at school, even wherever and whenever students are. Moreover, at this time the media does not only have to use a computer on the table and is heavy to move. Now there are several options, such as laptops, tablet computers, and smartphones. In the past, learning resources were organized in a book or other permanent media, now there are millions of information available through the internet.

Good learning media must meet several requirements. The use of media has the aim of motivating teachers and students. Good media can activate learning by doing the right practices. Students and teachers can improve classroom learning by accessing information from various sources (databases, libraries, special interest groups), communicating via computers with other students or with experts in certain fields of study, and exchanging information. So that the blended learning method is very effective and efficient in helping students succeed in learning and can improve the ability of teachers to be more creative and innovative in managing to learn.

4.3 Application of Blended Learning in Realizing Independent Learning in The 21st Century

In realizing an independent learning education system in the 21st century using the blended learning method, teachers need to know and pay attention to their implementation strategies to improve the quality of learning. As for the things that need to be understood by teachers, namely teachers must understand the application of blended learning principles, blended learning components, and settings for using blended learning.

The principle of blended learning is to communicate between face-to-face learning and online learning. This learning concept seems very simple but more complex in its use. According to Garrison and Vaughan, the principles of blended learning are 1) thinking about combining online learning with face-to-face learning; 2) thinking about learning designs that will involve students in the learning process; 3) rearranging traditional face-to-face learning [8].

Blended learning also has certain characteristics including (1) a learning process that combines various learning models, learning styles, and the use of various technology and communication-based learning media; (2) a combination of independent learning via online with face-to-face learning between teachers and students and combining independent learning; (3) learning is supported by effective learning from the method of delivery, learning methods and learning styles, (4) in blended learning parents and teachers also have an important role in the learning of students, teachers are facilitators while parents are motivators in their children's learning.

Then the teachers must know the components of blended learning that will be used in the learning process. The learning components are combined into one form in the learning process which consists of online learning, face-to-face learning, and independent learning. According to Dabbagh & Bannan, online learning, namely: Online learning is an open and distributed learning environment that uses pedagogical tools, enabled by the internet and web-based technologies, to facilitate learning and knowledge building through meaningful action and interaction [3].

From the definition put forward by Dabbagh above, it can be concluded that online learning is an open learning environment by considering learning aspects and that uses the internet and web-based technology to facilitate the learning process to build meaningful knowledge. Online learning is learning that uses the internet and web-based technology in accessing learning materials and allows learning interactions between fellow students or with teachers anywhere and anytime.

Face-to-face learning is one component of blended learning. The face-to-face learning component combines teachers with students in one room to study. Face-to-face learning has characteristics that are planned, place-based and social interaction [2]. Face-to-face learning is usually carried out in the classroom where there is an active interaction between fellow students, students with teachers, and students with others. In face-to-face learning, the teacher will use various methods in the learning process to make the learning process more active and interesting. Various forms of learning methods that are usually used in face-to-face learning are 1) the Lecture method, 2) the Assignment method, 3) the Question and answer method, and 4) the Demonstration method.

Then in the learning process the application of the blended learning method is independent learning, namely students can learn independently by accessing learning materials or information online via the Internet. Several terms refer to the term independent learning such as independent learning, self-direct learning, and autonomous learning. Independent learning means learning on the initiative, either with or without the help of others in learning. Students who study independently have the freedom to learn without having to attend lessons given by students in class. Students are given broad autonomy in learning activities.

In addition to understanding the components of blended learning, teachers must also understand the settings for implementing blended learning in learning activities. The composition of the application of blended learning settings that is often used is the 50/50 pattern, in the available time allocation 50% face-to-face learning 50% online learning, some use the 75/25 pattern, meaning 75% face-to-face meetings 25% online learning, and some apply 25/75, 25% use face-to-face learning, 75% use online learning. The use of this pattern depends on the required competency analysis, subject objectives, learner characteristics, learner characteristics and abilities, and available resources.

However, the main consideration in designing learning composition is the provision of suitable learning resources for various characteristics of learners so that learning becomes interesting, effective, and efficient. Therefore, the application of blended learning in realizing independent learning in the 21st century, must apply the principles of blended learning, understand the components that will be used in blended learning, and choose the composition of the learning pattern settings that will be applied. So independent education in learning in the 21st century with the application of blended learning methods can be successful and effective and efficient in improving student achievement now and in the future.

5   Conclusion

Blended learning has an impact on the transformation of education, where there is an acceptance of new ways or an improvement in society to meet the needs in the world of education. For example, teachers can play a role in building a generation that is capable of competence, character, new literacy skills, and higher-order thinking skills. In a way that is free to innovate for students, and can be more comfortable in life attitudes, decision actions, and approaches to all kinds of knowledge based on fun. Including being free and independent in using all learning media, both print media, namely books, modules, and worksheets, as well as electronic media, namely videos, and multimedia presentations and can also use online or online content.

The Industrial Revolution 4.0 that occurred in the 21st century, it was an era where human life was oriented toward technology, such as mastery of technology, cyberspace, big data, and others. Good media can activate learning by doing the right practices. Students and teachers can improve classroom learning by accessing information from various sources (databases, libraries, special interest groups), communicating via computers with other students or with experts in certain fields of study, and exchanging information. So that the blended learning method is very effective and efficient in helping students succeed in learning and can improve the ability of teachers to be more creative and innovative in managing to learn.

To realize an independent learning system, teachers need to know and pay attention to implementation strategies to improve the quality of learning. Things that need to be understood are that teachers must understand the application of blended learning principles, the application of blended learning components and the regulation of the use of blended learning. An independent learning education system in the 21st century with the application of blended learning methods can be successful and effective and efficient in improving student achievement now and in the future. Therefore, it is necessary to conduct further research related to the effectiveness of the application of blended learning in realizing independent learning in the 21st century.

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