

# Application of Blended Learning to Enhance 21<sup>st</sup> Century of Student Learning

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## ARTICLE INFO

### Keywords:

Learning;  
blended learning;  
21<sup>st</sup> century

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### Article history:

Received 2023-08-30

Revised 2023-11-04

Accepted 2023-12-07

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## ABSTRACT

The rapid development of technology today can support Blended learning as a form of learning process in increasing student learning motivation in this century, this learning innovation is expected to aim as an increase in student learning motivation accompanied by strategic steps of educators to increase student motivation. This study aims to analyze the Blended Learning method of student learning motivation in the 21st century. The data collection method is carried out by literature study or library method, focusing on Blended Learning related to learning motivation in 21st Century Education. This study shows that Blended Learning can answer problems by increasing student learning motivation by paying attention and combining online and ofine learning. Thus, it can be concluded that the use of blended learning methods is effective because it makes the learning process more exible, supported by the development of technology, information, and communication, so that it can increase the motivation and independence of students in the 21st century.

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## 1. INTRODUCTION

The rapid development of information technology has changed people's concepts, habits, and life models. People are increasingly dependent on communication tools such as laptops and smartphones for various daily activities, as well as in the eld of education. . Currently, the process of teaching and learning and self-learning can be done anywhere, anytime, with anyone, and through any learning source (Diana et al., 2020). According to (Puspitarini, 2022) the development of information and communication technology was quickly welcomed by the millennial and Z generations who were born in the late 20th and early 21st centuries. This generation is synonymous with technology, almost all activities are carried out by technology. They do everything from reading, search for information, enjoy music, find answers, display artwork, and create using smartphones.

21st-century learning has competencies including creativity and innovation, critical thinking, problem-solving, communication and collaboration. In addition students and teachers must have expertise in having information, mass media and technology, or in other words, they must have information, media and ITK literacy (Effendi & Wahidy, 2019). One of the learning innovations that is widely used today is learning with the

concept of blended learning (mixed learning) between in-class meetings and online meetings commonly called distance learning (PJJ).

According to R et al., (2023) Blended learning is a mixed system that combines two components or methods at the same time. The combination of these methods is online learning and multimedia. At the same time, embedded learning is a virtual classroom, video streaming, online animated texts, and more. All these methods are introduced in the classroom along with traditional teaching methods. Chaeruman, (2013) says Blended learning emerges as learning that combines synchronous and asynchronous learning methods to achieve achievable learning goals. A process resulting from two different learning, i.e. learning and performance students learn at once with an asynchronous learning plan. In contrast, in synchronous learning, students usually complete learning activities at the same time, but they are completed at a certain time. Widyasari & Rafsanjani, (2021) From the two opinions above, it can be concluded that Blended learning is a learning innovation that combines two learning models, namely: of in-class learning and online learning at the same time but not in the same location. By combining these two methods, it is hoped that students can increase their motivation to learn, especially in the 21st-century era.

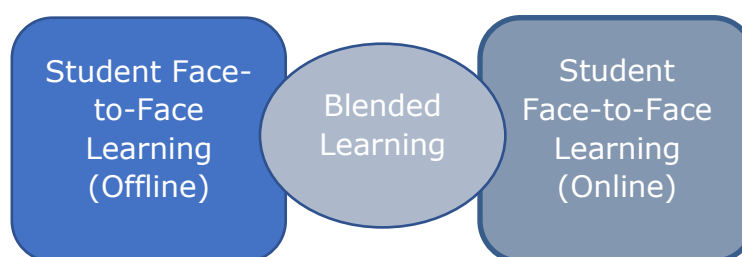
According to Sardiman A.M, (2007), the word motive is often interpreted as a person's inner strength to do something. Motive is the reason that guides a person's actions. Motive is defined as the force that drives someone to do something. It can be said that motive is the driving force within the subject to achieve a goal in carrying out certain actions. Motive can also be interpreted as an internal condition (*readiness*). Starting from the word motive, the word motivation can be interpreted as an activated drive. motives are activated at certain times, especially when the need to achieve goals may appear/be urgent (Haling & Pattaufi, 2007).

Based on the explanation above, it can be defined that in this 21st century with the application of blended learning, students' motivation to learn can be improved because the learning process can be done anywhere both of in-class and online. Learning is also not tied to educators who must deal directly with students face-to-face but with the help of technology, the presence of educators can also be through virtual viewing.

## 2. METHOD

This research uses the library method. According to Wicaksono et al., (2021) literature study is the collection of information and data using various library materials. Meanwhile, according to experts (Sarwono, 2023), literature study is an activity of studying various reference books and the results of similar previous research, which serves to obtain a theoretical basis for the problem being studied. Therefore, the library method is also called library research because it collects information related to a topic or problem being studied or a topic outlined in non-academic writings (such as novels).

In this study, data was collected from the results of searching for books, reading and processing books, and articles in online journals. In addition to reference books, researchers searched for articles on Google Scholar with the keywords "Blended Learning", "Covid-19 Impact", "Learning Motivation", and "21st Century Education". The 5 sources obtained, it was further analyzed regarding the title discussed and then developed conceptually. This research was created and discusses "Blended Learning in Increasing Student Learning Motivation in the 21st Century".



**Figure 1.** Blended Learning Concept

### 3. FINDINGS AND DISCUSSION

#### Result

Based on the results of the analysis that has been carried out on several articles and books related to blended learning in increasing student learning motivation in the 21st century obtained through Google Scholar or Google Scholar from 2019 to 2022, this article discusses the issue of blended learning which is growing from year to year. Blended learning was developed back around 2000 during the COVID-19 pandemic and is now widely used in the world of education, especially in Indonesia. In Indonesia itself, the term blended learning was increasingly recognized by the community during the COVID-19 pandemic, which required community activities to be limited on a large scale, including in the field of education. Therefore, blended learning comes as a solution to problems in the learning process that can increase student learning motivation. At first, blended learning could not be accepted by some people, especially in the teaching and learning process, because everything depends on technology and other supporting processes. But as time goes by, with various webinars, seminars and training activities, the world of education is starting to get used to it because, with the blended learning model, the learning process can be more effective and efficient.

Blended learning is a combination of traditional or offline learning and electronic learning or online learning, blended learning is a combination of teaching and learning activities with online approach methods, learning theories and models to achieve the desired goals in the learning process (Afifah et al., 2022). Meanwhile, according to Salmaa, (2023) blended learning is an improvement on the online learning system, where by using the blended learning method, learning can be done anytime and anywhere in different situations and locations as long as the location we live in has an internet network. Therefore, students as the nation's next generation who will become future leaders must of course be able to adapt to developments in the digital/online era. Blended learning subtly combines two learning models, namely face-to-face and virtual. According to Nugraha Dewa Made Dwicky Putra, (2020) blended learning consists of three main components, namely face-to-face learning, online learning and e-learning. These three components are combined to create an innovative curriculum based on educational needs. Apart from that Driscoll, (2002) also defines blended learning in four concepts, namely:

- a. Blended learning is learning by a teacher who combines certain technologies to achieve a goal that is to be achieved,
- b. Blended learning is a combination of constructivist, behavioural and cognitive approaches for certain achievements in the learning and teaching process,
- c. blended learning is a combination of various forms of learning technology such as basic video or film learning with face-to-face teaching or learning,
- d. blended learning is a combination of learning technology and work needs, which has a good effect on the teaching and learning process (Afifah et al., 2022).

According to Nurhadi, (2020) Blended learning has certain characteristics as the main characteristics including (1) a learning process that combines various learning models, learning styles and the use of various learning media based on information and communication technology, (2) a combination of independent learning via online learning with online learning. face-to-face between the facilitator and the students and combining independent learning, (3) learning is supported by effective learning in terms of delivery methods, learning methods and learning styles, (4) when it comes to students at school, in blended learning parents and teachers also have a role important in students' learning. Teachers are facilitators while parents are motivators in their children's learning. The blended learning model is a learning model that combines face-to-face and computer-assisted teaching methods, both offline and online, in an integrated learning approach (Idris, 2018). According to (University, 2022) there are at least several blended learning models from time to time, namely;

- a) Station rotation blended learning (Mixed Learning Station Rotation)
- b) This learning model is a combination of three types of learning. It is usually divided into three 90-minute learning phases, namely online learning, teacher-led learning, and cooperative learning

- c) Lab rotation blended learning (Laboratory Rotation Mixed Learning)
- d) Lab rotations are similar to station rotations, allowing students to fit three predetermined schedules. The difference is, this model uses a special laboratory, such as a commuter lab.
- e) Remote blended learning (Distance blended learning)
- f) Remote blended learning is a model that offers flexible learning to students. Depending on your needs, you may decide to balance face-to-face and online learning. In fact, this model does not require students to attend class. This means that it can only be completed online or in person.
- g) Flex blended learning (Flexible blended learning)
- h) Flex blended learning is a blended learning model that allows face-to-face learning while still focusing on online learning. The first learning is carried out online, followed by face-to-face learning with a schedule tailored to the students.
- i) Flipped classroom blended learning (Flipped classroom blended learning)
- j) In flipped classroom blended learning, learning is first carried out online to illustrate lesson material.
- k) Once online, students complete face-to-face classes to deepen what was previously taught.
- l) This model is intended to be supported by technology while preserving traditional learning.
- m) Individual rotation blended learning (Individual rotation blended learning)
- n) Individual rotation is a learning method in which a teacher or algorithm sets individual schedules and rotates activities previously planned by students.
- o) Project-based blended learning (Project-based blended learning)
- p) Project-based is a blended learning methodology that combines online and offline to design and complete project-based assignments.

In this model, learning tends to focus on online resources:

- a. Self-directed blended learning. Self-directed is a learning model that combines online and face-to-face learning to achieve formal learning goals, but puts students in control of their own learning. In this model, students do not have to meet the teacher.
- b. Therefore, the model must be run seriously in order to achieve its learning objectives optimally. Blended learning inside-out (Integrated learning from the inside out)
- c. The inside-out model is a learning model that emphasizes face-to-face or offline learning. We use online methods to support face-to-face learning. Blended learning outside-in (Blend learning outside)
- d. Outside-in is another learning method that combines online and offline learning. The difference is, this model was initially applied in non-academic learning at digital and physical levels, but was then completed in face-to-face classes to make learning more effective.
- e. This non-academic learning means being creative, sharing, collaborating and providing feedback while learning. Supplemental blended learning (Additional blended learning)
- f. Supplement is a model applied by students who take online learning to face-to-face classes and vice versa. Therefore, the complementary nature of each learning method is used as a complement. Mastery-based blended learning (mastery-based blended learning)
- g. This learning model is a combination of three types of learning. It is usually divided into three 90-minute learning phases, namely online learning, teacher-led learning, and cooperative learning.

In research (Afifah et al., 2022) discusses social studies learning using blended learning in learning development and to understand the skills that students should have. Starting from 1960 until now, many things have developed regarding the devices used in learning, including computers, the internet and cellphones. Recently, the learning process carried out face to face has been deemed uninteresting, apart from that, there are also circumstances that require learning not to be carried out fully face to face, such as the Covid-19 pandemic that has hit Indonesia. Meanwhile, in research Majir et al., (2019) at (MIS, MTs and MAS) Ar-Rahman Merombok, West Manggarai Regency, NTT, applied a blended learning model (web centri course). This model refers to internet use that combines distance and face-to-face (conventional). Some of the material is provided via the internet and some of the material is

delivered directly. It is believed by the teacher that this model can make it easier for students to study the material provided via a website that has been designed in such a way by the teacher. Blended learning with the web centric course model that has been implemented after analysis has 4 general benefits, namely:

- a. Students can easily follow the learning process in class or at home by opening the teacher's blog according to the subject
- b. Students are more time disciplined
- c. Can save energy costs, and be able to learn to collaborate with parents at home
- d. Communication between parents at home and teachers at school will be more harmonious and open

Based on the explanation above, it can simply be concluded that blended learning is learning that can facilitate the learning system in the 21st century, because the learning process is no longer limited by space and time so it can make it easier for the learning process to be carried out in different locations at the same time as long as the location occupied has a network, supported internet.

**Table1.** Result Literature Review

Authors, Title, Journal	Year	Method Research	Result Research
Afifah, S. N., Komalasari, K., Disman, D., & Malihah, E. Social Sciences Learning Based on Blended Learning a an Effort to Meet the Challenges of the 21 <sup>st</sup> Century. <i>Journal Basicedu</i> , 6(3), 4289–4298	2022	Qualitative research (library research)	Blended learning-based social studies learning is one of the innovations and solutions that are available to suit current developments. This answers the goal of social studies learning, namely that students can solve problems and make decisions that occur in their lives.
Diana, P. Z., Wirawati, D., & Rosalia, S.	2020	Descriptive quantitative	Blended learning can be an alternative choice of learning model that is applied to increase student learning independence
Puspitarini, D.	2022	Qualitative	The results of the blended learning learning process are effective because they are able to overcome the weaknesses of the face-to-face learning model. Blended learning can be an alternative choice of learning model applied to increase student learning independence dominated by teachers, as well as the weaknesses of e-learning which only relies on communication technology.

Widyasari, L. A., 2021 & Rafsanjani, M. A.	Experiment	Student motivation and learning outcomes can increase by implementing synchronous and asynchronous blended learning in distance learning.
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### Motivation to Learn

The definition of learning motivation according to experts, in this case Sardiman (Zakky, 2022) is an all-round driving force within students, which generates learning activities, which ensures the continuity of learning activities, which directs learning activities in such a way that the desired subject objectives can be achieved. Motivation means the word motive, namely motivation from within an individual to carry out certain actions to achieve the desired goals. In learning activities, motivation is any encouragement within students that guides, takes responsibility, supports and contributes to the learning process so that students can achieve their goals (Muawanah & Muhid, 2021) From these two opinions it can be concluded that learning motivation is a desire that arises in a student which leads to the implementation of a learning activity. The existence of learning motivation ensures the continuity of learning activities so that students can achieve the desired goals. Motivation and learning go hand in hand. Motivation to learn is the most important factor when carrying out learning activities, and individuals who do not have motivation to learn will not be involved in learning activities. According to Haling & Pattaufi, (2007) motivation has several basic principles in learning activities, namely:

- a. Praise is more effective than punishment
- b. A clear understanding of goals will stimulate motivation
- c. All students have certain psychological needs must get satisfaction
- d. Motivation that comes from within the individual is more effective than motivation imposed from outside
- e. Great motivation is closely related to student creativity.

According to (Sardiman A.M, 2007) there are several ways to increase learning motivation in implementing learning, namely:

- a. Giving numbers. Learning to give numbers has important meaning for students. Numbers in this case are a symbol of the value of student learning activities. Many students are motivated to study only because they are chasing test scores or report cards to get good results. The large number of students is a very strong motivation, but there are also students who just want to study, just want to catch up, just go to class. This shows that his motivation is less important than his friends who want good grades. Therefore, the teacher's next step is how to present figures that can be linked to the values contained in any information taught to students.
- b. Gifts. It can also be said that rewards are motivation, but this is not always the case. For rewards for work may displease people who are unhappy and have no talent for doing the work.
- c. Competition/competence. Contests or competitions can be used as a motivator to encourage student learning. Competition alone or in groups can improve student learning outcomes. This element of competition is widely used in industry or business, but it is also very good to use to improve student learning.
- d. Ego-involvement. Making students aware of the importance of assignments and considering them as challenges, so that effort by paying attention to self-esteem is a fairly high form of motivation that someone does with all their might to achieve good performance. Matching assignments is a symbol of students' pride and self-esteem as subjects. Students learn more to have self-esteem.
- e. Give a review. An important form of motivation is raising students' awareness that they feel the importance of the task and view it as a challenge so that they work hard for their self-esteem. A person does his best to achieve good performance with pride. Completing assignments correctly

- is a symbol of pride and self-esteem and is a theme for students. Students learn more because of their self-esteem.
- f. Knowing. Learning becomes active learning when you know there is an exam. Therefore, giving these tests is also a motivational tool that teachers remember too often because they can be boring and routine. In this case, the teacher must also be open, that is, if there is an update, the students must be informed about it.
  - g. Know the results. Knowing the results of work, especially in terms of progress, encourages students to study harder. The more you know about the graph of learning outcomes, the more motivated students will be to continue learning with the hope that learning outcomes will continue to improve.
  - h. Compliments. If there are students who can cope and do the task well, they should be given praise. This praise is a kind of positive affirmation and also good motivation. Therefore, for this praise to motivate, it must be given continuously with appropriate praise, creating a pleasant atmosphere and increasing enthusiasm for learning while increasing self-esteem.
  - i. Punishment. Punishment is negative reinforcement, but if given correctly and wisely it can be a motivational tool, therefore teachers must understand the principles of punishment
  - j. Desire to learn. The desire to learn means that there is an element of intention, there is an intention to learn, it is more than any goal without a goal, the desire to learn means that for students the motivation to learn is really there so of course the results are better.
  - k. Interests. Motivation is very closely related to the element of interest. Motivation comes from needs and interests, so interest should be the main motivator. Learning goes smoothly if there is interest in it.
  - l. Acknowledged goals. Formulating goals that are recognized and well accepted by students is a very important motivator, because understanding the goals that must be achieved because they are considered very useful and useful, creates enthusiasm for further learning.

#### 4. CONCLUSION

Writing a conclusion is the final part of a research paper, bringing everything together and tying it into the initial research. Writing a conclusion involves summarizing the paper and providing a very brief description of the results.

The learning method carried out using Blended Learning can increase learning motivation by using various learning strategies so that learning can be carried out more effectively whether carried out offline or online. Of course, this learning process must be accompanied by the support of rapid developments in technology, information and communication so that the learning methods used can influence students' independence and learning motivation in the 21st century. This article does not have the potential to weaken any of them, but rather wants to provide a solution in the sense of combining various learning strategies that have developed in the 21st century.

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