The Implementation of Blended Learning in Social Studies Learning for 21st Century Skills Enhancement

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Article Info	Abstract
	Face-to-face conventional learning is less attractive, while online learning is also less effective. In the digital era of the 21st century, learning methods must follow the development of information technology under students' experiences, needs, interests, and learning styles. This study aimed to determine the implementation and effectiveness of blended learning in social studies learning to improve 21st-century skills. This study used a qualitative approach with a phenomenological design. Data collection techniques using observation, interviews, and documentation studies. The results showed that the implementation of blended learning in SMP Semesta Bilingual Boarding School Semarang was based on Google Classroom and Edunav with Chromebook, Microsoft Surface, and interactive digital smartboard. Implementing blended learning is effective for improving 21st-century skills because it follows today's students' characteristics, learning styles, and learning needs. Blended learning is the best solution for 21st-century social studies learning. Blended learning in social studies learning at SMP Semesta Bilingual Boarding School Semarang is a perfect blend of teachers, students, and 21st-century technology called Technology Integrated Classroom.

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INTRODUCTION

The development of technology and information that is developing so fast affects all life areas, including education. This phenomenon can be seen from the shift in learning patterns from conventional face-to-face to online learning (Prayitno, 2015). The rapid development of ICT and the demands of 21st-century competencies have caused face-to-face learning in the classroom to begin to lose its appeal. Conventional learning is already considered an old thing and we need internet-based online learning. However, online-based learning is also not fully effective for learning because of students' different characteristics and learning styles. Some students like to do face-to-face learning, but others like online-based learning (Wardani et al., 2018). Besides, online learning is also constrained by slow internet networks and limited quotas (Rachmat & Krisnadi, 2020). For this reason, the learning method should follow the development of information technology following the experiences, needs, interests, and learning styles of students in everyday learning.

The method that is very suitable for the development of the 21st century is mixed learning or better known as blended learning. Blended learning combines conventional face-to-face learning in class with internet-based online learning for learning efficiency and effectiveness (Wu & Liu, 2013; Aeni et al., 2017). Blended learning combines direct learning, indirect learning, collaborative learning, and computer technology-assisted learning (Lalima & Dangwal, 2017). The purpose of blended learning is to combine the advantages of face-to-face learning and online learning so that learning is more effective, efficient, practical, and engaging (Latifah & Susilowati, 2015). Blended learning is intended to improve analytical skills, assess and critically evaluate sources of knowledge. It can help produce skilled and innovative students to meet the demands of the 21st century through creativity and innovation (Kintu et al., 2017). In optimizing blended learning, it is necessary to consider the characteristics of learning technology and information communication (ICT) in the classroom (Dziuban et al., 2018).

To face the industrial revolution 4.0 and the challenges of 21st-century learning, it is necessary to prepare a learning system in line with 21st-century technology and information development. Also, students must have 4C soft skills, namely communicating, collaborating, thinking critically and solving problems, and thinking creatively and innovatively (Zubaidah, 2018; Ayu, 2019). Therefore, learning objectives must be directed at efforts to improve 21st-century skills. These skills are the provisions of students in facing the challenges of the 21st-century.

SMP Semesta Bilingual Boarding School Semarang is a boarding school for Cooperation Education Unit using the Cambridge curriculum and the 2013 curriculum. One of the educational programs at Semesta is implementing a paperless education learning system. To realize this goal, blended learning is applied to make the learning become more optimal, effective, and efficient.

Based on the results of observations, it can be seen that the mastery of 21st-century skills of students at SMP Semesta Bilingual Boarding School Semarang is still low. Students have high academic abilities but low in the mastery of communication skills during learning. Besides, students are less willing to collaborate with classmates to complete learning tasks, especially with friends whose competencies are lower. In online-based social studies learning in the classroom, teachers find it challenging to control internet access one by one. Students ignore learning, play games, even open applications, and do not support the learning process. There are still students who do not do and collect assignments on time. Not to mention if there is a damaged laptop, it is very influential because students cannot participate in online learning. For online assessments, sometimes it is disturbed by less smooth internet access, mostly when it is done simultaneously in one class.

Referring to the background of the problem, it is necessary to research blended

learning in social studies learning to improve 21st-century skills. This study aims to determine the implementation, effectiveness of blended learning, and improvement of 21st-century skills in social studies learning at SMP Semesta Bilingual Boarding School Semarang.

METHOD

This study uses a qualitative approach with a phenomenological design. The study's location is in SMP Semesta Bilingual Boarding School Semarang which is located on Jalan Raya Semarang-Gunungpati Km. 15 Semarang City. This research focuses on the implementation of blended learning, the effectiveness of blended learning, and the improvement of 21st-century skills in social studies learning.

The data collection techniques in this study were observation, in-depth interviews, and document study. Observations were made by observing the implementation of blended learning in social studies learning. Interviews were conducted with 24 informants, consisting of the principal, deputy principal, social studies teacher, learning technology coordinator, and students in grades VII, VIII, IX of SMP Semesta Bilingual Boarding School Semarang. Document studies were carried out by analyzing teacher learning media and school curriculum documents.

The data validity technique used technical triangulation and source triangulation. Technical triangulation is done by comparing the information obtained from observations, interviews, and documentation studies. Source triangulation was carried out by comparing the consistency of information from interviews with social studies teachers, students, school principals, deputy principals, and school learning technology coordinators.

The data analysis technique is carried out with an interactive model analysis consisting of a flow of activities simultaneously, namely data reduction, data presentation, and conclusion drawing. A reduction process then carries out the data obtained from various sources, a

selection process, focusing on the implications, abstraction, and transformation of data sourced from written notes in the field. Then, presenting the data by drawing temporary conclusions from the data obtained. The last is drawing conclusions and verification by describing the study results in the form of words or sentences so that they can describe the results of the research in depth according to the conditions that occur in the field. In addition, as a tool of analysis in this study, Vygotsky's social constructivism theory is used to analyze and answer problems related to the implementation of blended learning in social studies learning to improve 21st-century skills.

RESULTS AND DISCUSSION

Implementation of Blended Learning in Social Studies Learning

Blended learning is a combination of face-to-face learning in class with online learning to achieve optimal learning effectiveness.
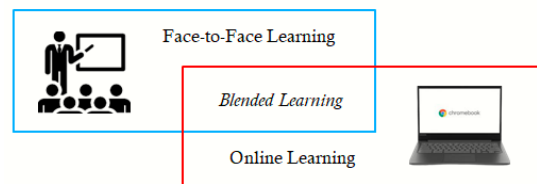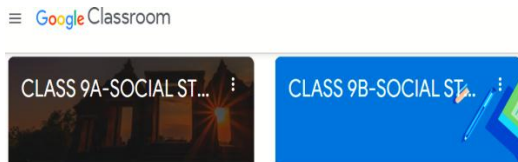

Figure 1. Blended learning in social studies learning.
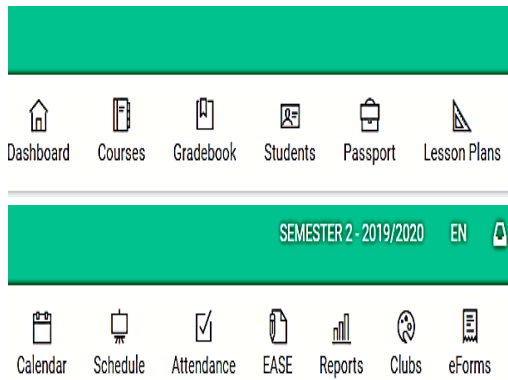
Blended Learning Platform

Based on the research results, blended learning in social studies learning at Semesta Junior High School initially used the Google Classroom platform. It then developed a school LMS, namely Universe.Edunav.net. Google Classroom is a virtual classroom that can be used in blended learning with many facilities and conveniences for today's learning. As the ease of creating virtual classes without installing an LMS, providing class management, available mobile applications. It is easier and faster to access, safe from advertising, easy to learn, free, integrated, and supports Chromebook. As the central blended learning platform, Google Classroom makes it easy for classroom

management teachers, such as sharing material, assignments, learning assessments, and two-way communication. For students, Google Classroom makes it easy to download material from the teacher, discuss, do assignments, and do assessments.

Figure 2. Google Classroom LMS platform

The second platform used in social studies learning is LMS Edunav. Initially, this LMS was only used for databases of teacher learning tools such as lesson plans, lesson schedules, class attendance lists, and student learning outcomes. However, along with the development of learning needs, LMS Edunav was then developed with features that support blended learning. Such as lesson menus, assessments, syllabus, attendance lists, value books, and learning journals.

Figure 3. Edunav LMS display

In supporting the blended learning program and technology-based learning in each classroom, an interactive digital smartboard with a large size of 75 inches has been provided. Supporting facilities in the implementation of blended learning for students are Chromebook laptops and Microsoft Surface tablets. Chromebook is a laptop that is already integrated with Google services for school education. Students use Chromebooks in

learning at SMP Semesta by using an email account from the school, and each student logs in with their respective account. The school fully controls the use of chrome books in learning for learning purposes. So, all Chromebook facilities with full online approval and control from the school cannot be used other than school learning activities. Microsoft Surface tablets are only used by class IX. However, some students switch to using Chromebooks because they are more effective for learning activities. The implementation of blended learning can improve the quality of learning, develop cognitive and social skills and provide collaborative learning experiences (Okaz, 2015).

Social Studies Learning Method

Based on the study results, the methods often used by teachers in social studies learning at SMP Semesta Bilingual Boarding School Semarang are collaborative methods such as discussions, presentations, making videos, inquiries, and outdoor studies. Collaborative learning is a learning method that is carried out in groups to study subject matter (Slavin, 2015).

The social studies learning method at SMP Semesta with discussions and presentations is a method that is often carried out every semester. In blended learning, discussion activities are carried out independently through assignments in the Google Classroom to be presented in front of the class. Extensive discussions between groups are carried out during face-to-face learning in class.

Social studies learning at SMP Semesta also uses the outdoor study method, collaborative learning by conducting simple research in Gunungpati traditional markets. The material provided is about market economic activities. Students then make observations, interviews and make reports on the results of field studies in the market. The results of this activity are then presented to the class. The outdoor study method in social studies learning can train communication skills by providing a learning environment experience. In the long term, it helps students understand learning material (Suprihatinigsih et al., 2016; Fatmawati

et al., 2018; Leveaux et al., 2019). Blended learning is effectively used in problem-based learning (Aeni et al., 2017).

Blended learning in social studies learning is carried out using collaborative learning methods. It aims to train and improve the skills of 21st-century students, namely, communicating, collaborating, thinking critically, solving problems, and innovative creative thinking. The blended learning method of learning can increase students' activeness in learning by providing new experiences of online and offline learning in the classroom (Dogra, 2016). The application of blended learning in social studies learning at Semesta Junior High is in accordance with the characteristics, learning styles, and experiences of today's 21st-century technology.

Media and Social Studies Learning Assessment

Based on the results of the research, it shows that the media used is media that is integrated in the classroom interactive digital smartboard and is available on the students' Chromebook, while the online applications used in social studies learning are Quizziz, Quizlet, Edpuzzle, Google Form, Examview, and Zoom (during the pandemic). which is integrated with the Google Classroom platform.

The blended learning assessment system used in social studies learning is to use the online quizzes application, edpuzzle, Quizlet, google form, google doc, and exam view. For conventional assessment using paper during daily assessments with description questions. Assessment by utilizing online applications is more attractive to students because it strongly supports the characteristics of different learners in their learning styles in terms of appearance and design. The use of collaborative learning applications in blended learning can be used to design and support assessment activities to increase students' active participation in learning (Vaughan, 2014).

Conventional and online assessments are selected by the teacher based on the characteristics of the material and the form of the questions being tested. Multiple choice questions use online applications because they are more practical and efficient. Teachers do not need to prepare a lot of time to correct questions because the marks will automatically come out right away. For assessment with description questions, the teacher usually uses paper because of the ease of supervising and correcting students' work. The summative assessment uses the Examview application because of its ease, efficiency, and effectiveness in its implementation. The Examview application also integrates easily with Chromebooks and reduces cheating on online assessments both at school and from home during the COVID-19 pandemic.

Effectiveness of Blended Learning in Social Studies Learning

Effective learning is a process of changing knowledge, attitudes and skills to provide influence, meaning, and benefits (Yusuf, 2017). Learning is said to be effective if students can master the subject matter well (Ramang, 2018). Effective learning can be measured from the level of achievement of learning objectives by most students. The achievement of learning objectives shows that students can accept internal experiences (Setyosari, 2017). For effectiveness in learning to be achieved, students must be involved in every learning activity. Also, it must pay attention to the condition of the school, facilities, and infrastructure and the availability of adequate learning media to achieve the maximum development of students (Rohmawati, 2015). In this study, effectiveness is based on the objectives, planning, implementation, motivation, and students learning outcomes.

Aspect	Implementations	Results
Purpose	*Paperless education system.*	Have implemented a paperless education system in social studies learning
	21st-century technology-based learning.	
	Mastery of 21st-century skills.	Students mastered 21st-century skills well
Planning	Training locally, national, and internationally by school and PT Edukasi Universal Indonesia.	Teachers attend training every semester
	Provision of *Technology Integrated Classroom. (Chromebook, Microsoft Surface, Interactive Digital Smartboard).*	ICT-based tools are used well by teachers and students in learning process.
Implementation	Blended learning face-to-face combination using LMS Google Classroom dan Edunav.	The blended learning is well done, teachers and students are skilled in using Google Classroom and Edunav.
	Edunav based learning media	
	Blended learning assisted by Chromebook and Microsoft Surface.	The use of *Chromebook* is more effective than *Microsoft Surface.*
	Assesment done by offline and online based on the learning needs.	Teachers only use *Edunav* to save learning media, haven't use it as LMS.
		Online-based assessment with *quizziz, examview, google form, google doc.*
Learning Motivation	Technology-based learning in accordance with characteristics, study needs, and information technology development of 21st-century.	Students mostly like technology and internet-based learning.
		Students become more active in technology and internet-based learning.
Learning Outcomes	Combination of conventional and online assessment.	*Blended learning* has an effect on student learning outcomes but not so high.
	Internet-based learning outcomes report.	The mean score of students and the class average has exceeded 75

Table 1. The effectiveness of blended learning in social studies learning

Purpose of Blended Learning Implementation

Implementing blended learning aims to achieve the school's vision and mission, namely to provide creative, innovative, and efficient education by applying modern technology wisely. It is implemented with the concept of a paperless education system, where this concept aims to reduce paper use in every lesson.

Therefore, blended learning is applied in every lesson. The implementation of blended learning in social studies learning also aims to improve the 21st-century skills of students, namely skills in communicating, collaborating, thinking critically, solving problems, and innovative creatives. With blended learning, it is expected that practical, efficient, engaging, interactive learning objectives can be achieved and improve student learning achievement.

Planning and Implementation of Blended Learning

In implementing blended learning in the classroom, SMP Semesta is very well prepared for planning and implementation. It can be seen from the readiness of schools to regularly design, manage and evaluate technology-based learning. Blended learning planning requires more time, effort, and cost to achieve the school's desired goals. Planning plays a key role in enhancing mixed learning integration into conventional learning methods (Ukaigwe & Igbozuruike, 2020).

For the smooth running of the blended learning program, the school collaborates with the education consultant PT Ed Pendidikan Universal Indonesia and parents so that the blended learning program runs effectively and efficiently. In supporting the blended learning program and meeting the needs of today's education, schools provide internet facilities, interactive digital smartboards, Chromebooks, and Microsoft Surface that is integrated in every classroom. (Technology Integrated Classroom). The school also provides training to every new class VII student on the use of technology in learning before learning activities take place so that this training makes it easier for teachers to implement blended learning in the classroom. At the beginning of each semester at SMP Semesta, training and seminars at the local, national, and international levels are also carried out to improve teacher professional skills in the use of 21st century ICT.

Based on the research results, it can be seen that training is always carried out for teachers and students on the mastery of learning technology and 21st-century skills at the beginning of the semester. In particular, planning in social studies learning is carried out by the teacher at the beginning of the semester and every week. Every week the teacher uploads lesson plan files through semesta.edunav.net. Learning material is uploaded through Google Classroom and at the end of the lesson, online reflection and evaluation are carried out with a Quizziz.

The facilities provided by the school to support blended learning and the realization of the paperless education system program are used well in social studies learning. Students are skilled in using interactive digital smartboards, Chromebooks, and Microsoft Surface. The use of Chromebooks is effective for social studies learning because the designs and applications used are already integrated with the Google Education service. Meanwhile, the use of Microsoft Surface in class IX is less effective if it is used for learning because access to information and control of usage is difficult for teachers and schools to control. Microsoft Surface is widely used for watching movies and playing games by students rather than for learning activities in class. Not to mention if something is damaged, it will take a long time to repair it because it has to be repaired overseas. It disrupts learning because students cannot use their equipment, especially Olympic scholarship students who rarely attend classes and come from economically disadvantaged families.

The implementation of blended learning in social studies learning can be very effective when teachers and students are unable to attend, for example when teachers leave class because of school assignments, students cannot attend class because they participate in Olympiad, inter-school competitions, and other activities outside of lessons. For reasons like this, teachers and students are not worried about being left behind in class material. Teachers and students can access online the course materials anytime, anywhere without the limitation of place and time. Students can also do online questions and exams effectively and efficiently.

Students' Learning Motivation

One of the goals of blended learning is to increase student interest and motivation. Blended learning, supported by sophisticated facilities, is expected to be able to motivate students to learn and achieve.

In social studies learning, students look very enthusiastic, active in learning, and very comfortable learning technology-based. Participants are very motivated to learn social studies due to blended learning, which is integrated with class technology. Students learn according to their psychological, cognitive development level and follow their current world, which is all internet. Students can find various information from books, the internet, play interesting and challenging quizzes. Students can complete assignments well independently, even though some are late in submitting assignments due to interference on the Chromebook. Blended learning offers meaningful and effective learning to improve student performance and motivation (Ghazali et al., 2018).

Social Studies Learning Outcomes

The implementation and effectiveness of blended learning in social studies learning can be measured by looking at the learning outcomes of students. If the learning outcomes are good or increase according to the learning objectives, blended learning is said to be effective.

The results of the research findings indicate that the learning outcomes of students with blended learning have so far increased, although not so high. This is because since the beginning of grade VII students directly use blended learning with the support of technology in every lesson; it is different if blended learning is only used for a short period. Students who are not familiar with blended learning are more motivated to learn to follow friends who already understand technology, while students who are familiar with blended learning and technology have better grades. Blended learning can increase students' interest, experience, and learning outcomes (Maharani et al., 2020; Wai & Seng, 2014).

Social studies learning outcomes show that students' average score and class scores have exceeded the KKM 75. It shows that the implementation of blended learning in social studies learning is effective and positively impacts learning outcomes (Alsalhi et al., 2019; Niasri & Cahyono, 2019). Besides, effective blended learning in social studies learning can increase the self-confidence and learning independence of students. It can be seen in the teacher's giving of assignments that students can complete properly through google classroom.

21st-Century Skills Enhancement

21st-century skills that are focused on in this study are 4C skills, namely Communication and Collaboration, Critical Thinking and Problem Solving, Creativity, and Innovation.

Learning strategies to improve 4C skills are (a) mastery of technology for students; (b) provide assignments that occur in the real world to be completed using technology; (c) provide collaborative problem-based learning experiences using internet data sources (Zubaidah, 2018). This strategy is very important in 21st century social studies learning.

The results showed that social studies learning at Semesta Semarang used an innovative and fun active learning method that required an active and challenging role for students. Face-to-face learning involves many students in various learning activities, both inside and outside the classroom. Online learning with LMS Google Classroom also involves students actively communicating online by utilizing the school's facilities. Learning activities to improve 21st-century skills are also carried out using the outdoor study method. This method aims to improve students' skills in communicating, collaborating, thinking critically and solving problems, and making decisions in their daily lives (Handayani et al., 2015).

The results showed that the implementation of blended learning in social studies learning saw an increase in the 21st-century skills of students, namely students were able to communicate well in learning, both face-to-face and online. Students are able and skilled

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in verbal and written discussions through Google Classroom and Zoom media by utilizing the chat menu to ask each other, comment, and discuss during learning and outside learning. Students can collaborate well with classmates through group assignments given by the teacher. This can be seen when students work on group discussion and presentation assignments and outdoor study assignments outside the classroom. Students also appear to be able to think critically during classroom learning activities both in face-to-face learning and online learning, students also appear to be able to make decisions in solving problems during learning. With blended learning, students can think creatively and innovatively, this shows that students are brave and able to express opinions and ideas in social studies learning. Although at first, they were shy in expressing their opinions, the longer they were accustomed to the discussion and presentation methods implemented in social studies learning, students became more courageous to express their ideas during social studies learning, both face-to-face and online. This is in line with Vygotsky's social constructivism theory that learning is obtained from social interaction with peers. Active learning will make students interact with their peers. Therefore, the cooperative learning method will provide better interaction for students with each other. As a result of this interaction, students with high competence will transmit information to less competent students (Erbil, 2020). Interaction with peers through collaborative learning is an effective way to improve 21st-century skills.

CONCLUSION

The implementation of blended learning in social studies learning at SMP Semesta Bilingual Boarding School Semarang uses the Google Classroom and Edunav platforms with Chromebooks, Microsoft Surface, and interactive digital smart boards in classrooms. Social studies learning with blended learning has been running effectively in accordance with the learning objectives and vision and mission of the

school. Blended learning in social studies learning can improve the 21st-century skills of students, namely communication, collaboration, critical thinking, and problem-solving, as well as the ability to create and innovate. Blended learning in social studies learning at SMP Semesta Bilingual Boarding School Semarang combines the abilities of 21st-century teachers, 21st-century students, and 21st-century technology called Technology Integrated Classroom.

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