



Implementing Blended Learning in Civics Education in Forming 21st Century Skills

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Abstract. The necessity of industrialization development in 21st century is inevitable. This pushes the citizens to enhance their skills. In preparing themselves to face the era, there is a requirement for education that can increase the citizens' creativity, innovation, and competitive nature. Technology usage optimization is on high demand. This can be implemented through learning models that involve information and communication technology. One of them is blended learning, which combines primary learning resources that are face-to-face meeting, online learning, and offline learning. This is one of the ways that is done in order to improve citizen skills (Civic Skill). There are three 21st century-focused skill categories: (1) learning and motivation skills, (2) information, media, and technology skills, and (3) life and career skills. These three skill categories are intertwined with the goal of civic education which is to form the character of a skilled citizen. This study focuses on examining blended learning implementation in civic education. The research utilizes qualitative approach with descriptive research methods. The findings showed that using blended learning in civic education was appropriate to form 21st century skills. This was due to its success in forming and enhancing required skills, particularly in information, media, and technology skills. This is because through blended learning, soft skill and hard skill are honed well. Soft skill are formed through online learning activities, and hard skill are formed through online and offline learning. However, these learning activities should be conducted continuously so that 21st century skills continue to develop in students.

Keywords: 21st Century Skills · Blended Learning · Civic Education

1 Introduction

The 21st century is known as the era of the industrial revolution development. In this century, technology has been flourishing rapidly. This becomes a marking that technology projection in various fields has also been growing fast. The industrial revolution era is a progression occurred in the field of technology, information, and communication [1]. One of the characteristics of industrial revolution 4.0 is the existence of artificial intelligence, big data, internet of things, internet of people, and multiple kinds of digitalization in life aspects [2]. Industrial revolution 4.0 is an era of technology development that intertwines with the digital world, which happens when intelligence and technology

advances are connected with the internet system, thus bringing impacts towards life. There are numerous conveniences offered along with it, causing the impacts to be significant and influential for the mankind. This industrial revolution will change the way of life, work, and communication [1].

Digital and technological development bringing opportunities for the citizen improvement cannot be denied, if the human resources are capable of improving their skills in utilizing those advances. Technology development does not only bring conveniences to existence to the mankind, but also replace some of human roles. This ensues because of the creation of gadgets featured with advanced technology that may substitute human work due to their effectiveness and efficiency. The phenomenon results in the rivalry of utilization between humans and those gadgets.

Human resources are expected to acquire quality of life in order to be able to compete and adapt themselves in the 21st century. UNESCO mentions several skills required in the 21st century: (1) critical thinking and problem solving skills, (2) creativity and innovation skills, (3) communication and collaboration skills, (4) social and intercultural skills, and (5) information mastery skills [3]. Moreover, Trilling and Fadel [4] reveal three components of 21st century-focused skills that are necessary to be learned by students as the future generations: (1) learning and innovation skills, (2) information, media, and technology skills, and (3) life and career skills.

Education has an integral role in preparing the future generation to be capable of being global citizens that are aware of and ready to face the present time challenges caused by technology. Education is a cognizant and planned effort to develop students' potentials. Educational institutions have one of their missions which is to educate students as the future generation to be creative and innovative human beings [5]. These efforts need to be conducted; especially, for vocational high schools. Vocational High Schools as educational institutions have the potential to prepare human resources which can be absorbed by the world of work since it has theoretical and practical materials which are applicable in accordance with the needs of the world of work. Based on the consideration, teachers as educators are required to have skills to integrate and consider skills necessary in the 21st century into learning process. Innovation in education may be done through using learning methods or models that can concentrate on those necessities.

Shaping the skills required in the 21st century is not an easy task in education. Therefore, in the process, there are learning strategies needed. Derived from the aforementioned fact, there is a demand for learning models that can increase students' skills in learning and innovating, in using technology and media information, and in working and living. One of the learning models deemed as capable of improving the 21st century skills is blended learning. Blended learning is a learning model which combines traditional learning inside the classroom and online learning which employs information technology. Blended learning is a learning model that blends the advantages of three main resources of learning, which are face-to-face meeting, offline learning, and online learning [6]. The aforementioned learning model is an opportunity to integrate learning process that is conducted online with the advanced technology and is combined with traditional learning implementation [7].

Alongside choosing blended learning as one of the means to improve students' skills in the 21st century, there is a subject able to support the process: civic education. This

is due to civic education being one of school subjects that has strategic roles in forming citizen knowledge. In civic education, students do not merely study rights and obligations as a citizen, but also prepare them to be citizens that are competent in confronting current development, including the present industrial revolution era. The general goal of civic education is to shape citizens to be smart, dignified, and active in the life of nation and state, as there is three essential components in civic education according to Branson [8]: civic knowledge, civic skills, and civic disposition.

Based on the aforementioned explanation regarding the urge to improve the 21st century skills for human resources, students in particular, there is a call to conduct further study related to improving the 21st century skills using blended learning model in civic education.

2 Literature Review

2.1 Blended Learning in Civic Education

Education is a tool used to form various types of skills necessary to overcome challenges in the 21st century. Concerning the previous statement, there is urgency for a learning process that may innovate alongside the technology and information development at present time. The usage of information and communication technology in education has changed the way of learning, from face-to-face meeting (conventional) to digital-based learning [9]. One of the learning innovations is blended learning. Blended learning is an incorporation of conventional learning (face-to-face) and technology-based distance learning with various media which may be used by teachers and students through internet [10]. Blended learning is a learning model that fuses the advantages of three primary learning resources: face-to-face meeting, offline learning, and online learning [6]. The fusion of those three learning implementations results in a learning model that is more effective and efficient [9]. Blended learning is a balanced learning process because the learning implementation is conducted in face-to-face meetings and online learning.

Blended learning as one of the digital-based learning models has benefits in terms of personalization, flexibility, and efficiency [11]. Blended learning supports the achievement of students' acquirement skills in knowledge, pedagogy, and technology usage. Blended learning is effective as well in emerging students' language abilities and independency [12]. Blended learning has the advantage to conduct lessons without having to consider space and time. By taking advantages of technology, learning may happen whenever and wherever [13]. Moreover, students may distribute the learning material to each other in an online setting [14]. Students may discuss and communicate with their teacher both inside and outside the classroom. The lesson may be conducted effectively and efficiently using blended learning. Besides that, blended learning may increase the students' participation in learning inside the class and through self-study [15]. Along with its benefits and advantages, there are also several weaknesses and disadvantages of blended learning. The fact cannot be denied because there is no learning system that is completely perfect to be conducted. One of the weaknesses or disadvantages of blended learning is that it requires suffice internet connection. The reason is that internet connection is one of vital components in blended learning implementation [16]. The media used in blended learning model are diverse as well. Therefore, the facilities and infrastructures

planned for the online learning must be adequate. Several of the intended facilities and infrastructures are computers, laptops, and smartphones. If the aforementioned tools do not provide support, it will be difficult for teachers to conduct blended learning. Teachers and students are required to obtain sufficient amount of knowledge related to technology in blended learning implementation [17].

Civic education is a subject which integrates knowledge, skill, and attitude in developing numerous competencies. Those competencies must be adapted in accordance of the current development and information and communication technology [16]. Civic education is designed as a subject with the goal of being able to expand the potential of an individual to be an Indonesian citizen that has honorable, intelligent, participative, and responsible characters. The purpose of civic education is to create and shape citizens to be dignified and active in the life of nation and state [18]. The function of civic education focuses on the character formation of citizens. Therefore, Center for Civic Education [19] reveals that there are three components of concept in civic education which consists of civic knowledge, civic skills, and civic disposition. Civic education emerges the characters of citizen to lean towards the characteristics of citizens in the 21st century and is more comprehensive because it involves various dimensions of education, politics, social, culture, and economics [20].

The implementation of mixed learning model may produce quality learning. Moreover, blended learning hones the students' skills of communication, collaboration, critical thinking, and creativity. As the purpose of civic education is to grow students' character and competence as a citizen (civic skills), mainly students as the next generation, the blended learning implementation is greatly supporting and considered as capable of being conducted in civic education learning implementation.

2.2 21st Century Skills

The 21st century-focused skills are an important set of skills to be acquired by every individual in order to encounter multiple types of challenges in this century [21]. Numerous demands come to existence due to the current development, especially in the 21st century, that the mankind should be able to increase their quality of life. The development of 21st century skills is directed towards the development of problem-based competencies, thus motivating the young generation to reflect on their skills and competencies [22]. The 21st century skills highlight on the change of attitude, skill, and ability to adapt well, so that humans become competent in competing and not being at disadvantage because of the technology development.

The 21st century is marked by the rapid development of technology. The characteristic of the 21st century is the change on multiple aspects, such as economy, transportation, technology, communication, and information as the impact of globalization. The increase of certain skills' quality has become the main attention for the educational institutions in the world to support the mankind to survive and adapt in the middle of globalization. There are three main skills which are required in the 21st century: (1) learning and innovation skills, (2) information, media, and technology skills, and (3) life and career skills [4]. In those three components, there are several branches. Learning and innovation skills consist of three parts: critical thinking and problem solving, communication and collaboration, and creativity and innovation. Information, media, and technology skills consist

of information literacy, media literacy, and information and communication technology (ICT) literacy. Life and career skills consist of flexibility and adaptability, initiative and self-direction, social and cross-cultural interaction, productivity and accountability, and leadership and responsibility. Those skills will be provisions for the mankind to compete in the middle of technology advancement.

The competence does not only come in skills and knowledge, but also involve those skills to fulfill the demands that become more complex [23]. The enhancement of skills and knowledge becomes a requirement in the 21st century. One of its method is by learning. Education has an integral role in preparing students so that they are able to be global citizens that are aware and ready to face the challenges related to the society that is currently mobilized and dominated by technology. Education is a facility in increasing the quality of human resources in all aspects of life and inheriting cultural values [3].

2.3 Impelementing Blended Learning in Forming 21st Century Skills

Improving the 21st century-focused skills is incredibly challenging for the education practitioners because it demands collaboration and digital literacy in education system [24]. Those skills may improve through learning implementation that utilizes information and communication technology. Blended learning adheres to the best combination of features that relates to face-to-face meeting and online-based learning, such as interactive learning which is conducted with the students inside a classroom, and then there will be a virtual learning session which is provided with materials that may be accessed by the students anytime and anywhere through internet [25]. In the process, the teachers may consider facilities and infrastructures that are available, teachers' capabilities, and students' preparedness. The blended learning implementation that is appropriate will be incredibly advantageous for the teachers to improving the learning quality [26]. Blended learning becomes a choice to resolve disadvantages from face-to-face meeting learning method which is dominated by teachers and e-learning which the teachers' direct involvement is at minimum. Blended learning, which combines face-to-face meeting and computer-based learning, becomes an alternative learning model in the 21st century [27].

The utilization of blended learning in its implementation may develop and increase the students' skills, such as in communication, collaboration, critical thinking, and creativity [26]. Blended learning integrates numerous types of primary components in the 21st century-focused skills, including soft and hard skills. This learning model revolves around students, which allows them to completely understand information and communication technology, problem solving, and teamwork [28]. Blended learning may enhance information and communication technology or digital literacy which has become a characteristic of society in the 21st century [27]. Blended learning exposes students to knowledge and strengthens their independency because they may be able to access various learning resources from the internet through computers and other gadgets. On the other hand, they will not lose touch with teachers and may interact with teachers in case they have difficulties in comprehending the learning material. Furthermore, blended learning provides knowledge for teachers in regard to media that may be utilized as learning media such as educational websites, so that the learning process becomes more enjoyable [29].

The blended learning implementation increases the competencies in information and communication technology. This is because using blended learning increases students'

knowledge and independence in accessing learning resources through internet [27]. Furthermore, this encourages students in using various kinds of technology and media in learning to the point that they become more skilled in utilizing ICT. Aside from that, innovations in the way learning become more pronounced that they provide means and results in learning that are more in depth for the students. Three main components required in the 21st century, which consist of (1) learning and innovation skills, (2) information, media, and technology skills, and (3) life and career skills, overall may be achieved well [27].

Blended learning may be stated as a provider of positive outcomes both to students and teachers as their educators. The most impactful outcome for the students is the enhancement of their capabilities and skills in communication, collaboration, critical thinking, and creativity in technology usage inside learning process [26]. Blended learning is one of learning innovations that may be employed in civic education for the sake of improving the 21st century-focused skills. This will be in line with one of the vital components in civic education, which is the component of civic skills. In accordance with the necessary skills in the 21st century, civic education has established a goal to form citizens with appropriate characteristics. Therefore, civic education learning implementation using blended learning model may increase and form the 21st century skills. This is because blended learning has been intertwined with students' motivation improvement and participation [30] and has been employed to enhance the quality of learning process and result. Education in the 21st century is a standardized education that must encompass two orientations: academic orientation and life skill orientation [31].

3 Methodology

This study used a qualitative research approach. The qualitative research approach has the aim of describing and disclosing, as well as describing and explaining research objects in natural conditions [32]. Moreover, in qualitative research, in-depth analysis techniques are needed so that a deep understanding of the phenomenon being studied is obtained. Therefore, it is possible to obtain an understanding of the reality in the field by using inductive reasoning [33].

The research method used was descriptive research method which has the aim of describing natural events or phenomena [32]. Descriptive research also aims to explain various variables related to the phenomenon studied [34]. In addition, descriptive research allows study to be able to obtain comprehensive data analysis results which are in accordance with the facts and data that occur.

4 Result of Research

Blended learning is the implementation of learning by combining face-to-face or direct learning (offline) with online-based learning (online). It provides learning experience which is quite effective and efficient since it collaborates conventional learning with the use of technology. It facilitates the implementation of learning which can be conducted anytime and anywhere. Therefore, in preparing the learning implementation plan, it is necessary to make a learning plan which is divided into two forms that are online and

offline learning. In practice, blended learning provides superior flexibility and efficiency [14]. It is because the implementation of mixed learning can be conducted anywhere and anytime, adjusting to the implementation schedule of learning which has been agreed upon by students and teachers. Furthermore, it provides an opportunity to integrate technological advances with traditional (face-to-face) learning. The development of information and communication technology encourages students to be able to create a better and stronger learning environment to shape student activity and participation in the learning process. Therefore, blended learning is a learning model concept which is appropriate to implement since it mixes two learning activities, that are face-to-face learning and online instructional learning activities [35]. In addition, blended learning will further enhance the development of information and communication technology (ICT) competencies or digital literacy which is one of the characteristics of 21st century society.

Therefore, it can be seen that blended learning is ideal for improving 21st century skills as stated by Trilling & Fadel [36] that are learning and innovation skills, information, media and technology skills, and life and career skills. Blended learning as learning and innovation successfully combines face-to-face-based learning with online learning in order to build more effective and efficient learning. In addition to information skills, media and technology skills, it is known that blended learning further enhances the development of information and communication technology (ICT) competencies [30] since the implementation is conducted by using technology; such as, internet-based computers, laptops and smartphones, which include various media which can be a means of implementing learning. In addition, in life and career skills, the results of learning and the ability of students to use technology in learning properly and correctly can be used for students to be able to live and compete in the 21st century.

The relation between blended learning and civics education learning, as it is well known, is that blended learning is a learning innovation which can be implemented in Civics education in order to build 21st century skills. It is in line with one of the important components in civics education that is Civic Skills (Citizenship Skills). Moreover, it is in line with the skills needed in the 21st century, citizenship education has a goal of building the character of good citizens. Therefore, the implementation of civic education learning by using blended learning models is able to improve and shape 21st century skills.

5 Conclusions

Based on the results, it may be concluded that the development of technology demands the improvement of skills and capabilities, particularly for students as the next generation. Skills required to compete in the 21st century are (1) learning and innovation skills, (2) information, media, and technology skills, and (3) life and career skills. In order to enhance those skills, blended learning exists as an innovation in learning implementation. It is acknowledged that blended learning is capable of improving the 21st century skills, especially in information, media, and technology skills. Blended learning as a learning innovation may be employed in civic education. This is in line with one of the essential components in civic education, which is the component of civic skills. Therefore, blended learning in civic education is able to form and increase the 21st century skills for the students.

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