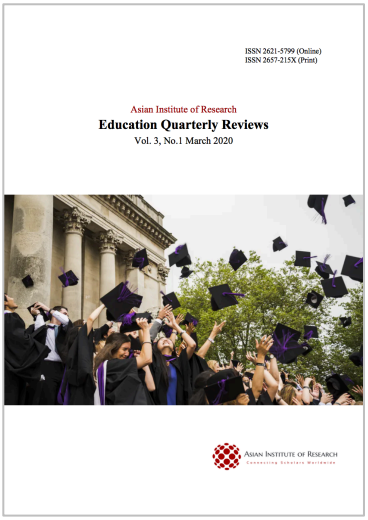

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Blended Learning: An Innovative Approach on Social Sciences at Indonesian Higher Education

Erond Litno Damanik[1]

[1] Department of Anthropology, Faculty of Social Sciences, Universitas Negeri Medan, Indonesia
eronddamanik@unimed.ac.id

Abstract
This article aims to formulate a format for blended learning in Social Sciences at Indonesian Universities that contributes to participant citizenship. This study is a projection of the future of Social Sciences education based on two factors, namely the low quality of education and literacy of Indonesia in the world and the participation of citizens in multicultural order. The fundamental problem in this study is the gradation of participant citizenship. Data were collected from journal articles, OECD and UNESCO survey results, and questionnaires to 600 informants. The framework of global competence and skills in the C21st is used to analyze the blended learning format in Social Sciences that is most suitable for developing participant citizenship. The advances in science and technology in the C21st, the Fourth Industrial Revolution (4IR) fostered the Internet of Education Things (IoET). In Social Sciences, the digital revolution spawned the Internet of Social Things (IoST). This study concludes that Blended learning's innovative approach to Social Sciences in higher education correlates with examining local and intercultural issues, understanding and appreciating the perspectives and Indonesian views of others, taking action for collective well-being and sustainable development, and engagements in open, appropriate and effective interactions across cultures.

Keywords: Blended Learning, Social Sciences, Citizenship, 4IR, Indonesia

1. Introduction

The contribution of education to life is generally known. Education is the main tool to achieve progress while ensuring the sustainability of the country. The quality of education has an impact on the quality of the state. That is, good quality of education will create a more stable quality of the state. In this case, the quality of the state is a reflection of participant citizenship that is seen in the attitude of nationalism (Carreira, Machado & Vasconcelos, 2016; van Deth, 2009; Irvin & Stansbury, 2004; Inkeles, 1969). However, the C21st learning paradigm in Indonesia does not include citizenship as a profile of the competencies and skills of its graduates. Also, the Indonesian curriculum is still focused on teaching materials based on rote memorization and not on activity-based.

This study is a projection of the future of education in Indonesia which has the potential to grow participant citizenship. The Indonesian state characterized by 'nation-state', is characterized by a high level of diversity. The complexity of this diversity has the potential to collapse the life of the nation or the spread of horizontal conflict.

Since the Reformation era in 1999, Indonesia has experienced various horizontal conflicts. The threat of disintegration emerged from various regions such as Aceh, Maluku, and Papua. The choice of decentralization tends to strengthen territorial polarization based on religion and ethnicity. Elections to determine presidents, governors, regents, mayors, and parliaments tend to strengthen primordial identities. Also, poverty, health, education, income per capita, and tolerance are still problems that have not been resolved properly. Majority-minority relations and religious and ethnic dominance have an impact on social relations. Identity politics reinforce racial, ethnic and religious differences as a threat to nationality. The practices of violence, discrimination, injustice, and poverty have damaged the nationality of Indonesia (Subhan, 2019). This whole phenomenon marks a decrease in the degree of participant citizenship that has the potential to divide the nation.

In our opinion, one of the main factors in the decline in the quality of participant citizenship is the poor quality of education and literacy in Indonesia. Based on UNESCO data, it is said that the quality of Indonesia's education in 2013 ranked 121 out of 185 countries in the world. The quality of Indonesia's education in 2016 ranked 57th out of 65 countries surveyed (OECD, 2016). In ASEAN, Indonesian education in 2017 is the 5th position. Indonesian literacy in 2009 and 2012 was ranked 64 out of 65 countries (OECD, 2016). UNESCO noted that the reading interest index in Indonesia was very low at 0.001. This data means that only 1 person has an interest in reading out of 1,000 people per year. The results of the Most Littered Nation in the World study, Central Connecticut State University (2016), stated that literacy in Indonesia ranked 60th out of 61 countries surveyed. The average Indonesian person reads books 3-4 times per week with a duration of less than 1 hour. The number of books that have been read is no more than 2 titles per year (Kompas, 26 March 2018).

The low quality of education and literacy is reflected in the phenomenon of society in Indonesia: (i) not a few students and educators in tertiary institutions are exposed to radicalism (Widyaningsih, Sumiyem & Kuntarto, 2017; BNPT, 2016; Fanani, 2013), (ii) strengthening of post-truth in the educational environment (Sismondo, 2017), (iii) failure to instill multiculturalism (Hanafi, 2015; Rosyada, 2014), (iv) strengthening of the phenomenon of the death of expertise (Nichols, 2018), and (v) the tendency of the campus as a tool to get a degree and not on developing self potential (Wijaya, Sudjimat & Nyoto, 2016). In the social life of Indonesia, the low quality of education and literacy has an impact on (i) the strengthening of community polarization based on primordial ties (religion, ethnicity, race and regionalism), (ii) denial of diversity, (iii) the spread of radicalism and terrorism, (iv) threats of disintegration, and (v) religious and ethnic identity as political tools.

This study offers improvements in the quality of education and literacy that correlate to participant citizenship through blended learning. In our opinion, blended learning offers more personalized learning, student-oriented, prioritizes discussion and collaboration, manages independent learning, accesses many learning resources, thinks critically, analytically and is innovative, and engages in the social environment. Through blended learning, educators must be trained, highly committed and responsible for the quality of graduates. In this case, the improved quality of education and literacy has an impact on the growth of participant citizenship. In other words, Blended learning is not only designed to achieve C21st Global Competence and Skills but also to produce C21st outcomes, namely participant citizenship.

We assume that learning models in higher education cannot be uniformed. Types of education (academic, professional or vocational), or higher education programs (diploma, bachelor, master, doctoral and specialist), as well as higher education units (academies, institutes, polytechnics, high schools and universities), even every STEAM discipline (Science, Technology, Engineering, Art and Mathematics) have learning models according to their respective educational goals. The biggest mistake in higher education today, especially in developing countries is the tendency to uniform learning models. This uniformity correlates with the learning model and the profile of graduates produced.

The Social sciences have a basis of the study, they are human, culture, and environment. The scientific method is focused on studying humans and their environment in the past, and the present to project the future. The object of study includes human behavior, actions, and interactions as political, economic, legal, customary and agent of change. The aspects studied are subjective, inter-subjective, objective, functional and structural. The approach is a social inquiry that is participating in solving problems in society (Massialas & Cox, 1968). An understanding of

humans and their environment is needed for the creation of a higher society record (Wood, 2013), that is, communities that are participant citizenships.

This study intends to explore and formulate the format of blended learning in higher education in Indonesia in the 4IR era. The approach used is constructionist learning theories (Lay & Kamisah, 2017; Garner & Oke, 2017; Mayes & Freitas, 2004) which emphasizes on three things, namely: (i) engaging students in discovery and problem-solving tasks through teamwork, (ii) provide opportunities for communicating ideas, and (iii) involve students in the process of design. Blended learning is oriented towards C21st Learners who have competence and skills (OECD-PISA. 2018; Brooke, 2017; Garner & Oke, 2017; Dede, 2014; Ananiadou & Claro, 2009; Garrison & Vaughn, 2007) that have an impact on participant creation citizenships. In our opinion, the biggest problem regarding the decline in participant citizenship in Indonesia today stems from the failure of social science to solve the national problem. This issue arises because of the orientation of the STEM-based curriculum which reduces the role of Social Sciences. In reality, citizenship in Indonesia is not included in the competency profile of graduates. This fact makes a decrease in the quality of participant citizenship in Indonesia.

Participant citizenship should be one of the competency profiles of graduates in higher education. This profile contains five fundamental foundations, namely (i) communication between citizens to formulate public goals, (ii) tolerance and acceptance of pluralism, (iii) the existence of consensus through democratic procedures, (iv) the existence of civic awareness, and (v) citizen participation in governing organizations (Sztompka, 1999). These five bases are attributes of nationalism (Kamenka, 1975; Kahin, 1995; Jaffrelot, 2003; Davidov, 2003) which reflect social tolerance (Zanakis, Newburry & Taras, 2016), social integration (Ferguson, 2008; UNRISD, 1994), social justice (Venieris, 2013), social awareness (La Rocca, 2017) and recognition of pluralism (Calhoun, 1993; Liddle, 1970). This attribute is needed to guarantee every citizen to participate in the country.

2. Result and discussion

2.1. 4IR and 21st Century learning in Indonesia

Technological progress in the C21st is identical to the fourth industrial revolution (4IR). The implementation of this technology in the education space is its use as a media, digital literacy and the Internet of Things (IoT). The 4IR is being built on the digital revolution and by emerging technology breakthroughs in several fields, including robotics, artificial intelligence (AI), nanotechnology, quantum computing, biotechnology, the Internet of Things (IoT), Blockchain, 3D-printing, and autonomous vehicles. In the field of education, 4IR changed the traditional classroom base model of education (Schwab, 2017; Groscurth, 2018). In the field of education, we are making efforts to improve the system while directly experiencing the development of fusion technology. The development of innovative science and technology catalyzes to consider human identity and worldwide (Schwab, 2017). The change in the 4IR is not the question of what will changes. While the educational environment is changing in the 4IR era, changes in methods and media for education are inevitable. The 4IR is merely a tool for a better life. With the 4IR, now is the time when education is urgently required.

The role of education in human growth is universally acknowledged. Since the early times of mankind, the tools of education have been not only the essential part of expressing ideas, knowledge, and wisdom but for the dissemination of learning and thus nurturing future generation (Lochan, 2019: 312). Every civilization has subsequently led to mental development, innovation and invention, and healthier mutual socio-culture behavior. The students are also learning more outside of the classroom through various digital devices via modern smart enabled TVs, cell phones, computers, tablets, iPods and all the other multiple platforms (Shakya, 2019: 207). Educators and students can cumulate more efficiently with each other with the help of digital technology. Furthermore, the use of technology such as audiovisual and PowerPoint in the classroom creates a more interactive learning environment (Collins & Halverson, 2009: 13). New literacy is breaking boundaries by integrating videos, images, music and animation features to the traditional print media. The education in the C21st played a role in creating a smart university namely a model of tertiary education in which academics are proficient in employing digital media for teaching and research that is equipped in accessing data analytics to measure and monitor student learning and their teaching performance (Lupton et al, 2018: 6).

Technological progress must be affirmed and adopted through a learning process to create a new culture of learning (Dede, 2009; 2014, Thomas & Brown, 2011). The purpose of this statement is that gaining knowledge not only in class but from various sources and wherever located. Higher education must move from stable infrastructure to fluid infrastructure, that is educators and students interact with each other through technology to create new knowledge (Garner & Okay, 2017). In the 21st Century, 4IR created the Internet of Things which is the widespread use of internet connectivity for learning (Mohammed & Al-Karaki, 2007; Fleisch, 2010; Prensky, 2011; Dogruera, Eyyamb & Menevisab, 2011; Galadze, 2015; Abbasy & Quesada, 2017; McRea, Ellis & Kent, 2018). IoT is part of online learning called multimodal learning (Garner & Oke, 2017; Tuiskua & Ruokonenb, 2017; Lalima & Dangwal, 2017; Brooke, 2017; Wannapiroon, 2014; Epignosis, 2014; Mayes & de Freitas, 2014; Hyder et al, 2007; Da Silva, 2010).

Every student in the C21st (C21st Learner) is required to have competence and skills in 3 things namely literacy, numeracy and digital fluency (Smith, 2019). C21st Competence refers to the Framework of Global Competencies, namely (i) critical thinking and problem solving, (ii) innovation, creativity, and entrepreneurship, (iii) self-directed learning, (iv) collaboration, (v) communication, and (vi)) citizenship (Ananiadou, & Claro, 2009; Tan, Choo, Kan & Liem, 2017; Cheng, 2017; Yoko, 2015; Smith, 2019: 525, Roy Singh, 1991). The competence in the 21st Century is an explanation of knowledge, values, attitudes, and skills (OECD-PISA, 2018; Cheng, 2017). These maps out the skills needed to survive and thrive in a complex and connected world. Furthermore, student skills in the C21st include 3 things namely (i) learning and innovation skills, (ii) digital literacy skills, and (iii) life and career skills (Trilling & Fadel, 2009; Trilling & Paul, 2019; Ananiadou & Claro, 2009; Cheng, 2017).

The three categories have been refined and expanded to include the basic scores subjects of reading, writing, and arithmetic but also emphasize global awareness, financial or economic, literacy, and health issues (Trilling and Fadel's, 2009). These constructs set high standards (Hilt, Riese and Soroide, 2018). They present quite an idealized conception of a student-creative, responsible, cooperative, engaged, self-regulated and in complete control of her self, her learning and her future, and again, in imperative to revitalize our teacher education and professional development and equip our teachers with the skills to promote these types of learning.

Global competencies and skills are also guiding much of the education reform. The shift places the students at the center of the learning process, core learning such as literacy, numeracy, and digital fluency are embedded in creative, inquiry-based learning activities-students are provided to question, imagine experiment, with considered awareness of their conduct and concern for others. Students are successful to collaborate, think critically, solve problems and communicate effectively. The teacher's role is to provide a learning environment that will engage students and be responsive to their ideas, ongoing professional development is ideas, the curriculum becomes dynamic and assessment if formative, ongoing and not reliable on end-point summations. Student achievement, well-being, and equity are overarching principles (Talvio, Litmanen & Lonka, 2016).

In Indonesia, Research and Development, the Ministry of Education and Culture (R & D Kemdikbud, 2013) set the C21st learning paradigm focused on the ability to find resources, formulate the problems, think analytically, and collaborate on problem-solving. In its implication, the National Education Standards Agency (BSNP, 2010) offers a C21st learning framework namely: (a) critical-thinking and problem-solving skills, (b) communication and collaboration skills, (c) creativity and innovation skills, (d) information and communications technology literacy, (e) contextual learning skills, and (f) information and media literacy capabilities. However, this learning paradigm does not include citizenship as one of the competency profiles of its graduates. Furthermore, there is a Presidential Decree Number 87 of 2017 concerning Strengthening Character Education. The implication is using a broad-based curriculum approach. This approach requires a good, integrated and synergistic educational ecosystem between schools, families, and communities. However, this regulation only regulates the profile of graduates with character and not the competency profile.

In this case, a character is not the same as competence. Character is attitudes in the form of ethics or morals. Specifically, participant citizenship competence is participation in the state which includes attributes namely nationalism, social tolerance, social integration, social justice, social awareness and recognition of pluralism. The absence of this competency has an impact on the decline in the quality of participant citizenship as happened in

Indonesia. Learning in Indonesia should break away from rote memorization and move to activity-based with high order thinking skills, engagement, self-standing, collaboration, aptitude, and attitude through contextual learning, hands-on according to the student's synthetic mindset. This learning can be achieved through the blended learning model described below.

2.2. Blended learning: an innovative approach

Blended learning is an innovative learning model in the C21st. This model is process-oriented rather than learning outcomes. This model creates personal comfort and management of learning. This model combines traditional teaching in the classroom with ICT support. The 4 main differentiators of the 4IR learning model are (i) traditional learning with face-to-face instruction in the classroom, (ii) face-to-face learning facilitated by the Web between 1% to 29%, (iii) hybrid learning with a proportion of 30- 79% are online-based, and (iv) online learning ie instruction is carried out 80% online (Allen & Seaman, 2013). The difference between blended learning models, online and offline, lies in time, loyalty, space, and humanity (Graham, 2006). This difference has an impact on learning modalities and their use for the promotion of learning materials. The modality of learning in the 4IR era is the broadest use of the internet as a tool and access to learning materials (Garrison & Vaughn, 2007). This model is the latest development designed to foster interactive learning experiences and a more personalized school atmosphere. This model brings together the best features of offline and online as a learning process.

Blended learning is a combination of technology-based instruction (Sheninger & Murray, 2017). This model becomes a learning container that utilizes technology to control the path, place, speed and learning experience that is more personal. So, blended learning is a combination of traditional learning with e-learning. The model of e-learning or cyber teaching or cyberlearning as 'technology-enhanced learning', which is the contribution of technology to developing learning practices. In this case, technology is internet-based (Mayes & Freitas, 2004; Garner & Okay, 2017; Rosenberg, 2001; Hyder et al, 2007; Chyung, 2007). Technology support in e-learning creates specific roles to support learning processes such as Computer Based Training, Computer-Based Instruction, Cybernetic Learning Environment, Desktop Video Conferencing, Integrated Learning System, and Web-Based Training.

Blended learning is formal education that is focused on efforts to create learning interest in students, i.e. (i) students hold control over time, place, path and steps, (ii) supervision of learning from a distance, and (iii) introduce learning capital integrated (Horn & Staker, 2014). Blended learning requires educators to switch from stable infrastructure to fluid infrastructure (Thomas & Brown, 2011). Blended learning offers multimodal learning ie learning from the environment through instructional (Sankey, Birch & Gardiner, 2010: 853). Multimodal is presented in more than one sensory mode (visual, aural and written) and various presentation modes to increase learning interest. Finally, interest in learning has an impact on improving learning achievement (Moreno & Mayer, 2007; Mayer, 2003; Fadel, 2008; Picciano, 2009).

The five main components of blended learning are: (i) face to face mediated by computers and the internet; (ii) unique and directed learning experiences; (iii) strategies to maximize the impact of learning; (iv) enables achievement because of the flexibility of the learning environment, and (v) offer the best to improve the quality of learnings (Garner & Oka, 2017). Therefore, the success of blended learning is highly dependent on the availability of trained educators, high commitment, scientific attitude, positive approach and broad view of change. Besides, it is also supported by complete facilities (laboratory, internet, wi-fi), system flexibility, as well as the role of parents in the home and social environment and ongoing monitoring. The keyword is promotion to many access points for material in each learning environment such as online use in computer laboratories, homework assignments, and online lectures.

Starting from the description above, the characteristics of blended learning are (i) integrated learning between online and face-to-face activities, (ii) learning in the classroom and outside the classroom, (iii) integrating instructional technology with actual assignments, and (iv) integrating computer devices, the internet with traditional teaching. The application of this model requires several stages, namely (i) active involvement in the preparation of the learning front-end; (ii) changes in how to teach in face to face format, (iii) personalized learning

through face to face interaction and journalizing, (iv) student involvement in one-on-one meetings, (v) involving individual and collective learning experiences and processing; (vi) learning controls to reduce busywork and, (vii) commitment to academic rigor (Garner & Okay, 2017).

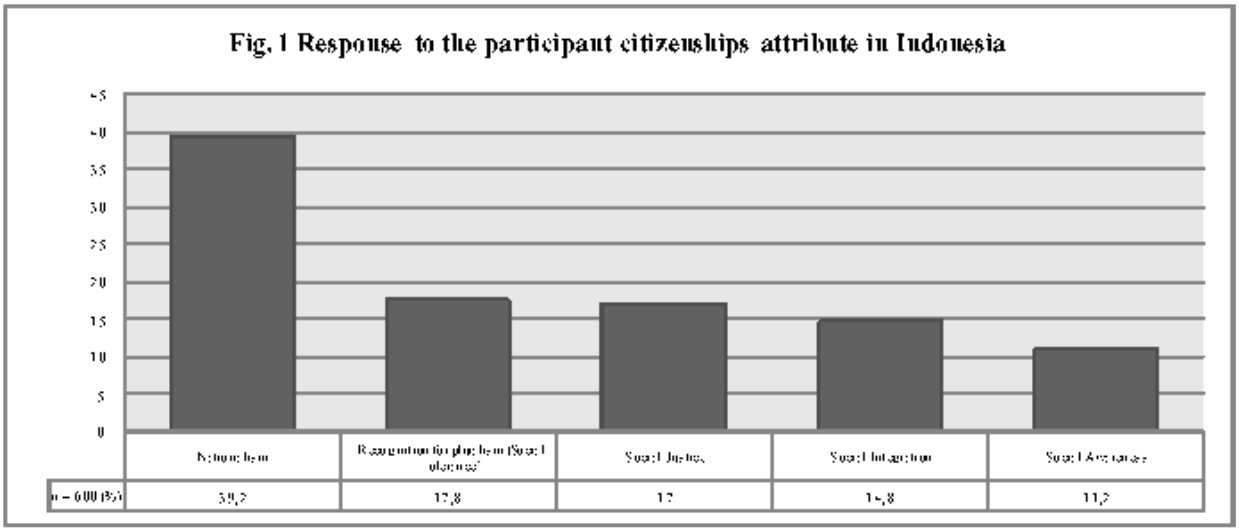
Transforming learning through blended learning has 8 keywords: creating a culture of innovation, redesigning the learning experience, ensuring a return on instruction, designing learner-centered spaces, making professional personal learning, leveraging technology, collaborating with engaging with the community, and leading the charge (Sheninger & Murray, 2017). 4 types of blended learning can be adopted namely: station rotation, lab rotation, individual rotation, flipped classroom, flex, A la Carte and Enriched virtual (Horn & Staker, 2014). The choices for the blended learning approach are adjusted to the expected teaching material, competencies, skills and outcomes. All facilities such as computers, internet, web, e-mail, social media, and Parents Student-Teacher Conference (PSTC) are used for academic purposes. In principle, blended learning is an innovative approach to the learning process that is the effort of educators to maximize the learning process to improve the quality of graduates who know, values, attitudes, and skills.

The C21st learning model is very important to be adopted because it provides benefits for students and educators. The benefits of blended learning for students are adaptable learning, smart software for learning and improved learning results. Furthermore, the benefits of blended learning for educators are smart tools for teaching, attendance tracking and flexibility with the education process. In general, blended learning is beneficial for several reasons, namely: (i) ICT support for online learning in classrooms that provide opportunities for more creative and collaborative, (ii) provide greater communication space, (iii) online learning increases interaction and communication social, (iv) student professionalism due to self-development through motivation, responsibility, and discipline that comes from oneself, (v) technological experience to improve digital fluency, and (vi) renewal of learning content and a more established learning life.

2.3. Implementation of Blended Learning in Social Sciences in higher education

Education is not enough to produce STEM scientists. Education must produce thinkers with generalist abilities and be more socially aware. They must have comprehensive capabilities for problems that require broad insight and understanding of global problems. Education is not solely focused on mastering the material but the learning process to obtain numeracy, literacy and digital fluency skills. Educational products are learning outcomes that knowledge, skills, and character. Learning outcomes lead to achievement, well-being, and equity, which are fundamental values for the human and social environment.

For this article, education must produce a graduate profile for participant citizenship in Indonesia. In this case, the attributes of participant citizenship include nationalism; recognition of pluralism (social tolerance); social justice; social integration, and social awareness. These five attributes are the representation of socio-culture behavior in multi-ethnic communities. We have tested these five attributes through questionnaires in 5 cities in North Sumatra namely Medan, Binjai, Tebingtinggi, Pematangsiantar, and Tarutung. During the 3 months (May-July 2019) after the general election on 17 April 2019, 600 informants (parents and students) have responded differently to these five attributes. All informants gave different answers about the need for national and state integrity. The informant's response is shown in Figure 1 below.



The data in Figure 5 above shows the fundamental attributes needed in the national framework. Nationalism (39.2%) is the main attribute to build and maintain the nation-state of Indonesia, then social tolerance (17.8%), social justice (17%), social integration (14.8%) and social awareness (11, 2%). These data represent the perceptions of 600 informants in North Sumatra looking at the islands of Sumatra, Java, Kalimantan, Sulawesi, and Papua. Nationalism is the cornerstone of building a nation-state. However, the percentage is still below 50 percent of the total informants. This situation was greatly influenced by the Presidential Election on 17 April 2019 which polarized Indonesians. This data indicates the need to develop national insight through the creation of participatory Indonesians.

Participant citizenships are souls that are influenced by historical similarity and have the same goals and agree to live together (Renan, 1994). Nationalism is a subjective condition that cannot be measured by objective factors. Race, culture, language, religion, ethnicity, and territory are factors driving the emergence of a nation but not its constituent factors. The process of becoming a nation is not a story of the past or only a missionary of warriors in the past. Each generation bears the noblesse oblige to fill national spaces to continue to live and be dynamic. In other words, caring for, caring for, and supporting nationality is a shared responsibility of every child of the nation (Subhan, 2019). In this case, education has a fundamental task to produce participatory citizens.

The prerequisite for growing participant citizenship is the existence of communication between citizens to formulate public goals, tolerance, and acceptance of pluralism, consensus through democratic procedures, civic awareness, and citizen participation in governing organizations (Sztompka, 1999). In this case, education has a significant role, namely creating a more personalized learning process, multimodal learning resources, increasing digital literacy, and involvement in solving social problems. Participatory citizenships are people who have high nationalism. Only nationalist citizens have participated in the state, that is, those who are aware of their position as citizens.

Achieving the degree of participant citizenship requires education that switches from remote memorization to activity-based. Each learning material is directed at activities that play a role in growing love for the country. In this case, mastery of numeracy, literacy and digital fluency is directed at achievement, well-being, and equity. In the Social Sciences perspective, participant citizenship is fostered through direct involvement in social activities, inter-cultural, inter-religion, visiting museums, historical sites, hero monuments, state ceremonies, and other social concerns. Learning material is directed at a plural social life and not on a fragmented collective life. Learning is not directed solely on the cognitive aspects, but at the same time on the character and attitude of well-being and equity. It should be understood that the intensity of student involvement in social life will have a significant impact on the sustainability of the state.

At this moment, every educator must have a high commitment to improving the impact of education on society and the country. Educators must have skills in accessing online material resources, translating social phenomena, English language skills and proficiency in using technological devices in education. Learning materials are not only directed at the mastery of numeracy, literacy and digital fluency but rather the process of mastering each field. Each learner is guided and trained in critical thinking and problem-solving; creativity; inquiry; innovative; communicative; and collaborative that contribute to participant citizenship. Graduates' profiles are adapted to the progress of science and technology but do not necessitate the complexity of the diversity of their communities.

The Social Sciences approach is reflected in the activity-based teaching material that is linked to the collective life of today and guarantees collective life in the future. Therefore, a good learning process in Social Sciences is the correlation between teaching materials with social life activities. This activity encourages social awareness or recognition for pluralism that positively impacts social tolerance as a foundation for participant citizenship. In contrast, teaching materials that are only delivered in the classrooms are based on memory or access to many sources of material without the involvement of students in social activities only to foster an individualist human. Mastery of teaching materials in the classroom is less correlated with participant citizenship. Therefore, blended learning is directed at the active involvement of students in social life. The examples presented to support teaching material are real events in the community. Students are asked to analyze and provide solutions to social problems. Students are brought to the community, rural, urban, poverty, agriculture, and integrated with them.

Blended learning of Social Sciences in the C21st according to Bloom's taxonomy (NWCPHP, 2015), is more focused on multimodal and student activeness. Simulating the real experience and doing the real thing is creating, participating in the discussion is evaluating, watching a demonstration is analyzing and applying. In these four taxonomies, learners and educators work together during the school day on these levels of learning. This learning differs from the traditional model in which this part emphasizes the learners are responsible for homework in these levels of understanding. Then, hearing words are evaluating and reading is remembering. In both of taxonomy, new materials are introduced to learners outside of class as their homework is on traditional an educator introduces new materials to students. Referring to the Bloom's taxonomy, the paradigm of Social Sciences in Indonesia not only results in C21st competence and skill but must achieve achievement, well-being, and equity under the human and social environment of the Indonesian State.

The emphasis of Blended learning on social sciences is the use of technology as a strategy, process and access to learning resources to create a more personalized learning experience. In Indonesia, blended learning does not mean replacing learning from face to face to online learning. Blended learning is a combination of both, which utilizes technology support for access to material, tools and instructional. In this case, the learning revolution that is typical of blended learning is changing learning patterns from talk to action which is active involvement. Through this involvement, the school environment becomes more fun, attractive, interactive, innovative and collaborative to achieve maximum learning outcomes.

The Social Sciences paradigm in Indonesia aims at four dimensions, namely aspired persons, reform objectives, expected competencies, and core values. Therefore, the steps in the formulation of blended learning must consider: (i) face-to-face material instruction and various relevant activities, (ii) check and re-check understanding of the material, (iii) find differences from each source of material, (iv) assessment through formative and summative as well as, and (v) material feedback. The format of blended learning in social sciences in Indonesia is shown in Table 1 below.

Table 1 Format of blended learning in Social Sciences in higher education

Blended learning approach	attempting to include	objectives
Station rotation and project-based blended learning	▪ development of the self; ▪ interpersonal relations; ▪ thinking skills; ▪ good citizenship and social participation;	intellectual, moral, and social prowess

	▪ contribution to the global world, and; ▪ basic knowledge and new knowledge

This study confirms that blended learning in Social Sciences cannot be confused with STEM. Social Sciences teaching materials must indeed contain numeracy, literacy and digital fluency recorded on knowledge, character, and skills. However, the contribution of Social Sciences lies in the outcomes namely achievement, and well-being and equity. In this section, the Social Sciences curriculum must have an impact on the lives of people and countries. We offer a blended learning approach, categories, and sub-categories of Social Sciences graduate profiles in Table 2 below.

Tabel 2 Format competency categories and sub-categories Social Sciences

Blended learning approach	categories	sub-categories
station rotation and project-based blended learning	knowledge and skills	▪ learning and innovations skills, ▪ digital literacy skills, and ▪ life and career skills
	thinking ability	▪ critical-thinking and problem-solving; ▪ communication and collaboration; ▪ creativity and innovation; ▪ information and communications technology literacy; ▪ contextual learning; ▪ and information ability and media literacy.
	practical ability to act for the nation	▪ achievement, equity, and well-being (responsibility for sustainable societies or participant citizenships)

The power of blended learning is its ability to create more personalized learning experiences for students. The experience referred to is changing learning activities from talking to action. In this section, educators become agents for students, namely the high level of learner agency (learner-centered, learner voice, constructivism, active, doing, elective, intent participation, and in control). Learning spaces tend to be flexible, broadest access to material resources and collaborative and innovative learning processes. Learning every 1 hour per lecture in Indonesia is set for 170 minutes. This distribution consists of 50 minutes face to face, 60 minutes of independent study and 60 minutes of online learning. The division of learning time is shown in Table 3 below, namely:

Table 3 Format for estimating Blended learning time in Social Sciences

activities	**estimated time**
self-study pre-class (e-learning)	▪ 60 minutes: Students study independently. Every student is sure to read, study and master teaching material. Students make summaries and criticisms of teaching materials from various sources (books, official web, journals, communities)
face to face instruction-classroom (traditional learning)	▪ 50 minutes: The lecturer presents teaching material in class and discussion.
student task-after class (e-learning)	▪ 60 minutes: Each student is doing a class assignment. Assignments are directed at critical, analytical and innovative ways of thinking. This assignment distinguishes between case studies, small group projects, final group projects, and academic writing. Each task combines theory with social phenomena or realities. Learning resources are online (web-based or IoT) such as e-books, e-journals and others. Assignments are sent via e-Mail device or e-Learning facility.

Furthermore, the division of time in 2 hours per subject matter for 16 lectures in 1 semester is shown in Table 4 below namely:

Table 4 Format of Blended Learning activities on Social Sciences

Activity	Estimated Times
Technical reading	▪ 2-4 minutes per page: Average reading speed is 250 words per minute.
Descriptive reading	▪ 2 minutes per page: Average reading speed is 250 words per minute.
Discussions	▪ 90-120 minutes per discussion.
Case study	▪ 60-90 minutes per case: Includes reading the case and writing answers to case questions.
Small-Group Project	▪ 120-240 minutes per project: Organize themselves and work together to complete the project.
Group Final Project	▪ 240-420 minutes per project. Organize themselves and work together to complete the project.
Academic Writing	▪ 30-60 minutes per page. Writing and performing basic editing.
Research	▪ Varies: Average 30 minutes per subject needing to be researched.

Source: Garner and Oka, 2017

Blended learning is carried out by choosing one of the available approaches namely (i) station rotation blended learning, (ii) flex blended learning, (iii) flipped classroom and (iv)project-based blended learning. It is important to underline that blended learning can only be implemented if the entire educational infrastructure in tertiary institutions has been properly fulfilled. The keywords of blended learning are educators and students not trapped in instruction. Technological support for the implications of blended learning is online assessment, online material, and work at home and in the community. The Social Sciences discipline has the responsibility to develop participant citizenship for the sustainability of the state. Therefore, to overcome the decline in the quality of participant citizenship, citizenship competencies must be present in the Indonesian paradigm of learning in C21st. Blended learning on Social Sciences in Indonesia combines face-to-face and online learning to solve social problems at the point of participant citizenship. In this case, blended learning combines 30 percent of traditional learning and 70 percent of online learning. Educators become trainers and their expertise is used to lead students to problem-solving. The students are directed to various access points of the material, discussing and finding solutions. In this case, the Social Sciences approach to growing participant citizenships in Indonesia is: (i) examine local and intercultural issues, (ii) understand and appreciate the perspectives and Indonesian views of others, (iii) take action for collective well-being and sustainable development, and (iv) engagements in open, appropriate and effective interactions across cultures.

3. Conclusion

The advances in science and technology in the 21st Century, the Fourth Industrial Revolution (4IR), fostered the Internet of Education Things (IoET). In Social Sciences, the digital revolution spawned the Internet of Social Things (IoST). Social Sciences education guides students in the human and social environment on five dimensions, namely nationalism, plural and multicultural societies, social justice, social integration, and social awareness. Thus, blended learning is directed at the goodness and sustainability of the nation. Blended learning in the constructivist approach requires three main things, namely the improvement of educational infrastructure, namely computer equipment and internet networks, curriculum revitalization that leads to C21st competence and skills, and educators are trained and highly committed to change.

This study concludes that blended learning's innovative approach to Social Sciences in higher education correlates with participant citizenships namely examining local and intercultural issues, understanding and appreciating the perspectives and Indonesian views of others, taking action for collective well-being and sustainable development,

and engagements in open, appropriate and effective interactions across cultures. The strength of blended learning is its ability to create a more personal learning experience that is changing learning activities from talking to action. Blended learning is changing the way of thinking from learners who are responsible for homework in these levels of understanding to learners and educators work together. The blended learning model of Social Sciences cannot possibly be confused with non-Social Sciences. The Social Sciences Laboratory is a human being and his social environment, therefore Social Sciences competencies and skills are not only focused on the mastery of knowledge but also the sustainability of the nation and society, namely equity and well-being. Therefore, Social Sciences education in the 4IR era was directed at achieving C21st global competence and skills which had an impact on participant citizenship.

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