



Making Digital School: Digital-based Social Studies Learning with Indigenous Knowledge

Asep Ginanjar; Noviani Achmad Putri; Aisyah Nur Sayidatun Nisa; Galih Mahardika Christian Putra; Aan Probo Wiranto

Universitas Negeri Semarang, Indonesia

<http://dx.doi.org/10.18415/ijmmu.v12i2.6482>

Abstract

A teacher who has digital competence is not only technologically literate and implements digitalization of learning, but can also integrate ethics, law, human and social issues into the learning process which is packaged in the digital learning process, so that students not only become more focused in using technology. but also has the value and character needed as a filter for the negative excesses of advances in internet technology. One effort is integrating indigenous knowledge in social studies and digital-based learning which can accommodate the learning needs of students as digital native generations. This research attempts to explore the factual conditions of social studies learning with an Indigenous Knowledge perspective in Semarang City Middle Schools, examine the optimization of digital-based social studies learning in Semarang City Middle Schools, and look for digital-based patterns of Indigenous Knowledge-based social studies learning in Semarang City Middle Schools using qualitative methods. The results of this research include: Semarang City has a lot of cultural heritage, both tangible and intangible cultural heritage, including Indigenous Knowledge values which can be integrated into the learning process, especially social studies learning; Implementation of digital-based social studies learning must be applied to teachers, students, learning objectives, teaching materials, learning media, learning methods, and evaluation. If these seven components can be implemented digitally, then the digital-based social studies learning process will run optimally; Digital-based Social Studies learning with an Indigenous Knowledge perspective in Semarang City Middle Schools, there are several patterns in digital-based learning. The learning pattern consists of Blended Learning, Virtual Learning Environment; Mobile Learning (M-Learning).

Keywords: *Digital School; Indigenous Knowledge; Social Studies Learning*

Introduction

Regulation of the Minister of Education, Culture, Research and Technology of the Republic of Indonesia Number 13 of 2022 concerning Amendments to Regulation of the Minister of Education and Culture Number 22 of 2020 concerning the Strategic Plan of the Ministry of Education and Culture for 2020-2024 states that Education is one of the fields that supports the achievement of 4 pillar of Indonesia's vision towards a golden Indonesia in 2024. Where education makes efforts to support the first

pillar, namely human development and mastery of science and technology (Renstra, 2024). Educational support in this case is by always trying to improve the quality of education and learning. The quality of education increases if the elements in education can synergize with each other, namely related to input, process and output of learning (Juliantoro, 2017). The current development of science and technology (IPTEK) is very massive and has an impact on all aspects of people's lives, including the world of education. Internet technology is the technology that has the biggest and broadest impact, especially for digital native generations who cannot be separated from internet access in their daily lives. Based on the results of a survey conducted by the Indonesian Internet Service Providers Association (APJII) in the 2022-2023 period, internet users in Indonesia reached 215.63 million, this figure increased by 2.67% from the 2021-2022 period. The increase in the number of internet users can be seen in more detail in Figure 1 below.

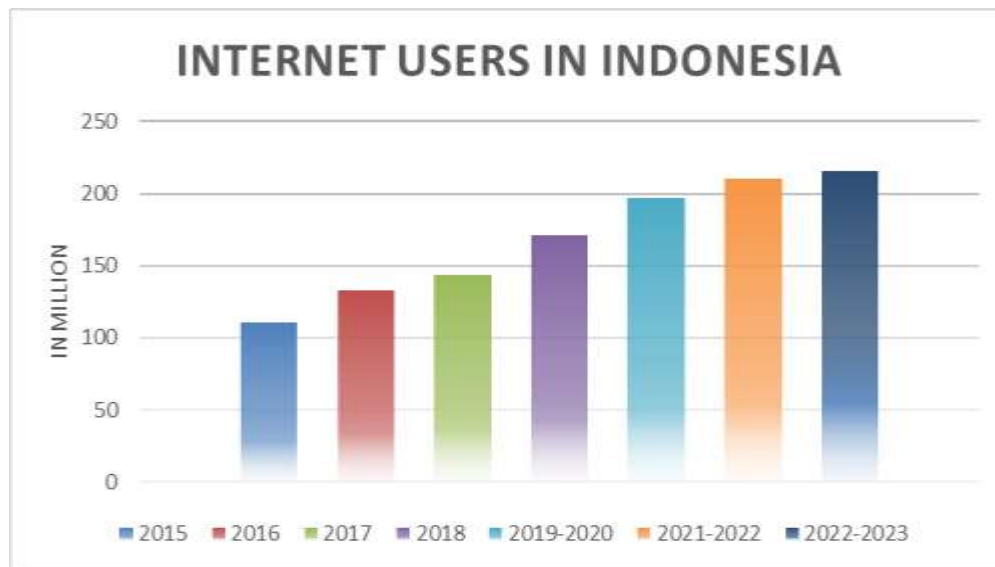


Figure 1. Increase in Internet Users in Indonesia
(Source: Asosiasi Penyelenggara Jasa Internet Indonesia, 2023)

Based on Figure 1, it can be concluded that the number of internet users continues to increase from year to year, and the number of internet users at the end of 2023 which reached 215.63 million shows that 78.19% of Indonesia's total population of 275.77 million has accessed the internet. . This of course requires serious treatment to mitigate the negative impact of massive internet access in society, especially internet users among teenagers or children. Based on ICT Watch, there are several risks or negative impacts of internet use among teenagers or children, such as: (a) they can experience mental disorders; (b) being the perpetrator or victim of bullying; (c) accustomed to hate speech or violence; (d) familiar with pornographic content; (e) be an individualist; (f) less sensitive to the surrounding conditions; (e) loss of interest in socializing with other people (Scoutto, 2016). The results of the Kompas Research and Development survey regarding criminal acts committed by teenagers carried out in 67 cities and 65 regencies in 34 provinces show that criminal acts committed by teenagers are more common in urban areas, but cases of muggings are more common in rural areas. More details can be seen in Figure 2 below.



Figure 2. Results of Youth Crime Survey
(Source: Litbang Kompas, 2022)

Based on data showing internet penetration among teenagers along with the negative impact of internet access by teenagers, it shows that this requires handling by educational institutions. Teachers as the front guard in the world of education are required to have digital skills and competencies in carrying out their profession as educators. In this context, it is important for educators to integrate technology in their professional practice so as to support students for life and work (Unesco, 2022). Teachers in the digital era are required to fulfill 6 digital competency indicators, namely mastering technology concepts and operations, digitalization of teaching, learning and curriculum, assessment and evaluation, productivity and professional practice, social, ethical, legal and human issues, and planning and designing the environment and digital-based learning experience (Tharamma, 2020). A teacher who has digital competence is not only technologically literate and implements digitalization of learning, but also a teacher must be able to integrate ethics, law, human and social issues into the learning process.

One effort to integrate the digital world by instilling national values and character is by implementing an independent curriculum that is adapted to the challenges of advances in information technology and the era of globalization without forgetting indigenous knowledge. Indigenous knowledge is unique traditional local knowledge or insight, which still exists and is developing in a particular community and region. Social Sciences (IPS) learning is closely related to indigenous knowledge. One strategy for integrating values is through teaching materials, learning methods and learning models (Juliantoro, 2017). Social studies learning will be more meaningful if the learning process integrates local wisdom values (Jumriani, 2021). These local wisdom values can be religious, responsible, disciplined, hardworking, caring for the environment and social caring (Azizah and Basyari, 2023). However, in the current era, a teacher has his own challenges in integrating local wisdom values. The main challenge of culture-based learning in Indonesia is teachers' understanding and skills in integrating local culture into the learning process and how to package learning to suit the characteristics of students as digital native generations who are close to the development of digital technology (Alifiyah and Nur, 2023). One example is digital-based social studies teaching materials that are integrated with local wisdom which can support long distance lectures both synchronously and asynchronously (Haerunnisa, 2020). Teaching materials based on local wisdom are suitable as a source of character education, are practical to apply, and are effective in improving the character of students (Karsiwan, 2023).

The integration of local wisdom values will be very important in the future because it has its own goals and benefits, namely that it can act as a filter for various external influences that enter various aspects of community life (Kawuryan, 2009). The presence of local geniuses in learning means that cultural acculturation can influence students' character in a better direction, so that local cultural wisdom is not lost due to the influence of foreign culture (Juliantoro, 2017). Apart from that, it also functions as a driving factor for mutual understanding between humans, cares about human relations and social relationships, as well as being an individual filter and social control, so that it can raise students' awareness in facing life today and in the future (Munir, 2017). Furthermore, increasing literacy about social studies learning based on local wisdom is also able to increase feelings of pride and love for the

nation's cultural values (Jayanti, 2023). Therefore, it is important to apply social studies learning with an indigenous knowledge perspective to improve the quality of social studies learning both in input, process and output (Hadi, 2022).

Semarang City is a city that is included in the 5 big cities in Indonesia. As the capital of Central Java Province, exposure to internet technology among teenagers and delinquency or criminal acts committed by teenagers often occur as can be seen in Figure 2. Educational institutions, namely schools in the city of Semarang, have started implementing social studies learning processes with an indigenous knowledge and based perspective. digital, although this integration does not become a complete unit. Efforts to digitize learning in Semarang City have been carried out starting from 2022. As reported in *kompas.com* in 2022, there are 370 state primary and secondary schools in Semarang City already using digital platforms. The city of Semarang also has several traditions resulting from ethnic diversity in the city of Semarang which have very good values to instill in students, such as the traditions of *dugderan*, *diaperan* and *rewanda* offerings. This can of course be the initial capital for developing a social studies learning model that has a digital-based indigenous knowledge perspective. It is hoped that the application of social studies learning with a digital-based indigenous knowledge perspective will be able to help students become more qualified in the learning process in accordance with students' learning needs, especially in Semarang City Middle Schools.

Methods

The method in this research uses qualitative research. Qualitative research was chosen for several reasons, one of which is because the focus in this research is more appropriate to reveal and collect data using techniques in qualitative methods. The phenomena in this research can be revealed in more depth and comprehensively if explored using qualitative research methods. The aim of this qualitative research seeks to uncover, explain and contextually analyze phenomena that occur in the field both deductively and inductively (Puspitasari, 2023). The location of this research was carried out at SMP Negeri 22 Semarang, SMP Negeri 8 Semarang, SMP Negeri 19 Semarang, SMP Negeri 37 Semarang and SMP Nasima Semarang. Data collection in this research used observation, interview and documentation study techniques. These three techniques are the most important techniques in qualitative research (Pernantah, 2022).

The validity of the data in this research uses data triangulation techniques. There are several triangulation techniques in qualitative research, including using methods, data sources, theories and between researchers (Crewell, 2015). The triangulation technique used in the research is method and theory triangulation technique. The triangulation technique using this method is carried out by comparing interview data with observation and documentation data. Next, the triangulation technique using theory is carried out by cross-checking the interview results using a previously determined theory. The next stage is data analysis. Data analysis in this research was carried out in an integrated manner from the three study focuses studied, where the approach to analyzing this phenomenon is called holistic analysis (Moleong, 2014). Analysis of this phenomenon is carried out with in-depth analysis and then an assertion is made, namely an interpretation of the meaning of the phenomenon (Moleong, 2014). Data analysis was carried out based on the existing research flow.

Results and Discussion

1. Factual Conditions of Social Studies Learning with an Indigenous Knowledge Insight in Semarang City Middle Schools

Recognition of the existence of customary law communities and local wisdom is contained in the 1945 Constitution Article 18 B paragraph (2) and Article 28 I paragraph (3), Law Number 32 of 2009

concerning Environmental Protection and Management Article 63 paragraph (1) letter t, Article 63 paragraph (2) letter n and Article 63 paragraph (3) letter k. Local wisdom has six dimensions which include local knowledge, local values, local resources, local decision-making mechanisms, local group solidarity. Local wisdom is one of the components implemented in education in accordance with Law on the national education system number 20 of 2003 in chapter that responds to challenges (Rummar, 2022).

The city of Semarang has a lot of cultural heritage, both tangible and intangible cultural heritage. Some of the cultural heritage in the form of objects are Sam Poo Kong, Tay Kak Sie Temple, Lawang Sewu, Blenduk Church, Tanjung Mas Lighthouse, Avalokitesvara Pagoda, Kauman Mosque, etc. Meanwhile, the intangible cultural heritage of Semarang City can be seen in Table 1 below (Semarang City Culture and Tourism Office, 2015).

Table 1. Intangible Cultural Heritage of the People of Semarang City

No.	Intangible Cultural Heritage Category	Culture Name
1.	Customs, Celebrations, Rites	1. Kiran Bende Nangkasawit 2. Ruwatan 3. Dugderan dan Warak Ngendog 4. Rwandan offerings
2.	Performing Arts	1. Puppet People 2. Shadow puppets 3. Ketoprak 4. Trutuk 5. Sobokarti Arts Center 6. Gambang Semarangan 7. Semarangan Gending-gending Dance
3.	Tradition and Expression	1. Semarangan House 2. Semarangan Bride/Manten Kaji 3. Semarangan dialect
4.	Skills and Traditional	1. Semarangan Batik 2. Semarang culinary delights such as Lumpia, Milkfish Presto, Gimbal Tofu, Wedang Tahu, Mie Kopyok, Roti Ganjel Rel, Gulai Bustaman, and Wingko Tripe.
5.	Knowledge and Behavioral Habits Regarding Nature and the Universe	Caring for Springs

With so much cultural heritage containing local wisdom values as can be seen in table 1, efforts are needed to preserve and develop local wisdom, especially in the era of globalization where foreign values or culture are rapidly entering and eroding Indonesian culture. One of the efforts made is by integrating Indigenous Knowledge into the learning process, especially social studies learning.

Based on the results of interviews with school principals, teachers and students at several junior high schools in Semarang City, they agreed that local wisdom values are very important to be integrated into the social studies learning process. In the social studies learning process, there have been efforts by teachers to link Indigenous knowledge with social studies material, however new teachers are limited to linking it with material on socio-cultural change. Apart from that, the teacher also gave several examples of local wisdom in the Semarang City area, such as the Dugderan tradition in Semarang City, the Nyadran tradition in Gunungpati District and the Popokan tradition in Bringin District.

Teachers' efforts to integrate Indigenous Knowledge into social studies learning have not yet reached the point of integration into the development of learning media, the learning media used is mostly still in the form of presentation materials in the form of Power Point or using videos taken from the

internet. While good teaching materials can be seen from several aspects such as the appearance of the material, its support, linguistic aspects, cultural content aspects, philosophical aspects, and evaluation aspects [27], the development of social studies teaching materials and learning media that has been carried out has not fulfilled these aspects.

The method used in the social studies learning process with an Indigenous Knowledge perspective is still in the form of lectures, discussions and practicums which are integrated with other subjects, namely arts and culture lessons on dance material. Students are limited to gaining knowledge about the types of traditions that exist in the city of Semarang, but have not yet reached the point of instilling local wisdom values to shape the students' character.

2. Optimizing digital-based social studies learning in Semarang City Middle Schools

Technological developments, especially internet technology, have brought massive changes in various fields, including education. Middle school level students are teenagers who are the Digital Native Generation who were born and grew up with the development of digital technology. In the future, the world will be dominated by the Alpha generation who were exposed to digital technology from an early age. This demands changes in the world of education and the learning process to integrate digital technology to make it relevant to students.

The digitalization policy in the world of education in 2019 was implemented through a digital platform in the form of a Learning House developed by the Center for Educational Technology and Communication (Pustekkom) which provides virtual laboratories, online tutoring, and various kinds of digital learning media. The digitalization of education has been pushed even faster after Covid-19 forced the learning process to be carried out online through various digital platforms. The latest policy for implementing digitalization of education in the independent curriculum is carried out through the Merdeka Mengajar Platform (PMM).

A digital-based learning process does not mean that the learning process is carried out only online, but the learning process can be carried out online, offline or a mixture of the two by integrating methods, teaching materials and digital learning media. Digital-based learning can make the learning process more interesting because with digital technology media and teaching materials can be developed that are varied, interactive, up-to-date and relevant to the world of students.

In social studies subjects, digitizing the learning process will help students achieve the goal of social studies, namely helping students become good citizens. Students at the junior high school level as the Digital Native Generation will certainly be very relevant when the social studies learning process is designed to suit their daily lives which cannot be separated from the use of digital devices. Digital-based teaching materials and learning media can provide a variety of materials in various formats such as text, audio graphics, animations, videos which students can choose according to their individual preferences. On the other hand, with digital-based social studies learning, teachers can design differentiated learning so that Teaching at the Right Level (TaRL) can be created where the learning process runs in accordance with students' learning readiness and understanding, is inclusive and responsive to students' needs.

Implementation of digital-based social studies learning must be applied to teachers, students, learning objectives, teaching materials, learning media, learning methods, and evaluation. If these seven components can be implemented digitally, then the digital-based social studies learning process will run optimally. So that the digital-based social studies learning process will be able to help students achieve social studies learning goals, not the other way around, namely becoming an obstacle in the learning process.

The first component is the teacher, where social studies teachers must have qualifications and competencies appropriate to their field. This can be seen from competency certification such as teacher certification and other competency certificates. A social studies teacher must have the ability to design and develop digital-based teaching materials and learning media. This ability can be obtained from attending workshops, seminars, or In House Training (IHT). Various types of training can be facilitated by schools, education offices, ministries or can take advantage of community service activities that are often carried out by universities as part of higher education tri dharma activities.

The second component is students. In the digital-based social studies learning process, students as a generation that was born and grew up along with digital technology will certainly not experience difficulties in using digital devices. However, the use of digital devices must be accompanied by intelligence in utilizing digital devices. Students must be educated in the positive use of digital devices, such as how to play on the internet safely, selecting and sorting information, looking for credible and valid reference materials, so that students' ability to use digital devices can support the digital-based social studies learning process.

The third component is learning objectives. The essence of every learning process is to help students achieve learning goals that are expected to be useful for their lives. The formulation of learning objectives certainly needs to pay attention to the demands of the digital era, where in this era students are not only required to understand the theories in social studies subjects, but are also required to be able to apply them to the real world. Determining the learning goals to be achieved must be in accordance with the needs of students in the digital era, namely being adaptive to developments in digital technology, preparing life skills in the digital era and being flexible in following rapid developments.

The fourth component is teaching materials. The development of teaching materials is carried out by a social studies teacher or group of teachers based on the results of a needs analysis. The form of teaching materials can be text, video, animation, graphics, audio. Determining the form of teaching materials is adjusted to the type of material to be delivered. For example, if the material to be presented contains theory and there is a lot of it, the teaching material can be in the form of a text module, but if the type of material is a volcanic eruption process or needs to show a process, then the form of teaching material can be in the form of graphics or videos because they can provide clearer illustrations. Teaching materials in the digital-based social studies learning process in any form must be digital, this can make it easier for students to access teaching materials anywhere and at any time.

The fifth component is learning media. The development or selection of social studies learning media must be adjusted to the characteristics of the material, the character of the students, and technological developments. The use of digital-based social studies learning media can be a forum for teaching materials or delivering material effectively and efficiently. Several online digital platforms such as Google Classroom, Edmodo or Microsoft Sway can be used as a medium for delivering material or learning asynchronously. Video conferencing services such as Zoom, Google Meet, Microsoft Team or Gather can be used as a synchronous learning medium. Teachers and students can also use the Rumah Belajar Learning Management System (LMS) developed by the Ministry of Education and Culture for learning both synchronously and asynchronously. Teachers can also use several online digital-based interactive learning media such as Canva, Wordwall, Quizizz which can package the material to be more interesting.

The sixth component is learning methods. The use of learning methods in the digital-based social studies learning process must be varied and adapted to the learning model used. Learning methods can take the form of lectures, questions and answers, role playing, demonstrations, discussions, practices. The choice of using various learning methods is adjusted to the needs when the teacher will deliver material at a certain stage in a learning process.

The seventh component is evaluation. In digital-based social studies learning, assessment uses formative and summative assessments. Formative assessment is to evaluate progress and identify learning difficulties, while summative assessment is to measure the achievement of learning objectives. Reflection also needs to be done at the end of the learning process to find out the perceptions of teachers and students regarding the learning process that has been carried out. In digital-based social studies learning, assessments can be carried out in real time and can be accessed by stakeholders such as the Education Department, School Supervisors, School Principals and parents using online digital platforms such as Quizizz, Google Form, and Kahoot, so that the results of the evaluation can be easily obtained. quickly used as material for improving the next learning process based on input from various parties.

3. Digital-based Social Sciences Learning Patterns with Indigenous Knowledge in Semarang City Middle Schools

The application of digital literacy requires teachers as the main facilitator not only to rely on existing learning sources such as student textbooks but also to collaborate with other learning sources such as magazines, newspapers, the internet and digital media so that what is learned is in accordance with world development conditions. Based on the results of interviews in several schools regarding digital-based social studies learning with an Indigenous Knowledge perspective in Semarang City Middle Schools, there are several patterns in digital-based learning. The learning pattern consists of Blended Learning, Virtual Learning Environment; Mobile Learning (M-Learning). In more detail, the author describes these patterns in more detail below:

a. Blended Learning

Blended Learning is learning that combines face-to-face learning with the use of internet technology. With blended learning, social studies learning with an indigenous knowledge perspective will provide many options for interaction and delivery of material from teachers and resource persons to students. Likewise, learning methods, models and media will become more varied and attract students' interest.

Face-to-face learning can provide direct interactive experiences between fellow students, students and teachers, and students with resource persons such as cultural activists, traditional community leaders and other stakeholders where meeting face to face will train students in communicating both verbally and non-verbal. Sensitivity, empathy and sympathy will be more honed when students interact directly so that the cultivation of indigenous knowledge values will increasingly penetrate into the hearts of students.



Figure 5. Face-to-face learning in the classroom

The use of various learning methods such as role playing and simulations can also help students to experience firsthand how local knowledge is put into practice so that it will be memorable and stick firmly in the minds of students. The use of educational technology can also be done during face-to-face learning, such as using smartboards which can help teachers deliver more interactive and interesting teaching material.



Figure 6. Use of Smartboards at Nasima Middle School, Semarang

Online learning as an additional method in blended learning can facilitate students in accessing material in rich multimedia form that can be accessed anywhere and at any time. It is easier for students to understand indigenous knowledge material from various sources available online. In developing knowledge, understanding and critically analyzing indigenous knowledge, it is not enough just through learning in the classroom, students also need to explore and learn outside the classroom through online learning. Students can collect and process data from various sources, discuss and communicate in order to solve problems while remaining under the teacher's supervision effectively and efficiently. Applications that can be used in blended learning include Google Classroom, Google Site, Microsoft Sway, Edmodo. Teachers and students can use some of these applications for free or for a fee and are relatively easy to use.





Figure 7. Use of Google Site as a means of social studies learning with an Indigenous knowledge perspective online asynchronously

For example, using the Google Site to convey social studies material with an Indigenous Knowledge perspective can be designed to be as attractive as possible and can include various types of media from various sources such as videos, articles, virtual reality, to educational games such as Wordwall. Apart from Google Site, a web-based application that can be used in online learning is Microsoft Sway. Just like Google Site or Google Classroom, Microsoft Sway is relatively easy to use because it is created by simply dragging and dropping, teachers can add various kinds of interactive media so that the learning process will be even more interesting.

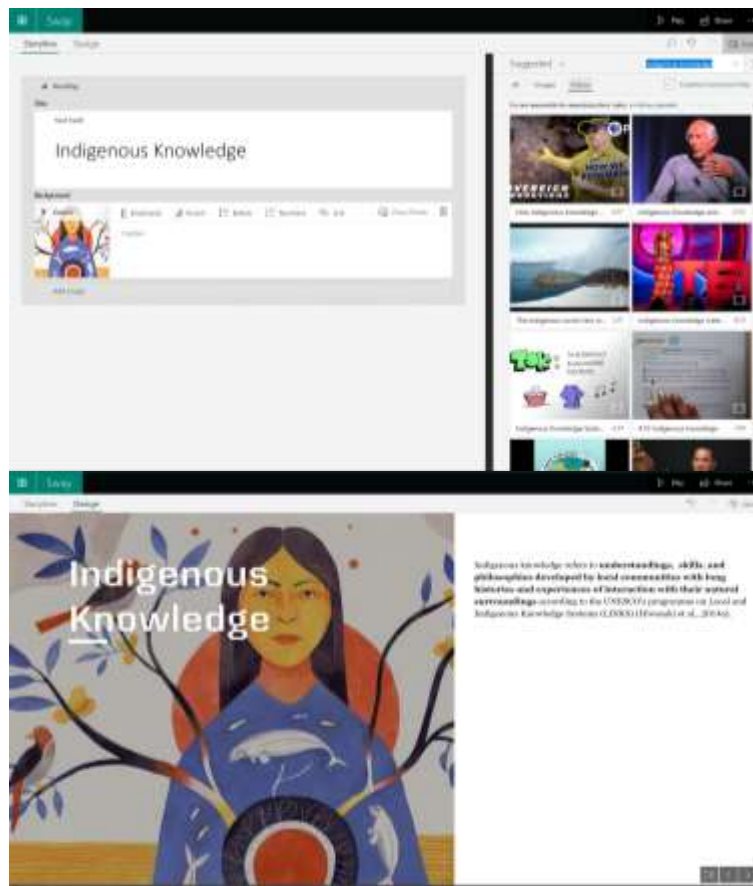


Figure 7. Use of Microsoft Sway as a digital-based social studies learning tool

The online assessment process can be carried out using web-based applications such as Quizizz and Kahoot which can be embedded in Google Site or Microsoft Sway so that students will be more motivated in working on questions and teachers can monitor assessment results in real time anytime and anywhere.

b. Virtual Learning Environment

Virtual Learning Environment (VLE) is a digital platform that can be used in social studies learning with an indigenous knowledge perspective. VLE can provide a social studies learning experience using space or a virtual world. Students can explore and interact in the virtual world according to their wishes but remain within the limits or supervision of the teacher. In a virtual space or world, teachers can design a virtual world by adding social studies material with an Indigenous Knowledge perspective in various forms of interesting media.

VLE can be an alternative environment for learning to make it more relevant and interesting for students who are the Digital Native Generation, where this generation was born and grew up along with massive advances in digital technology. This generation spends more time in virtual spaces such as social media. With this VLE, teachers and students can interact using avatars in the virtual world and can play any role according to a predetermined theme. Teachers can design virtual space to be a place rich in Indigenous Knowledge and together with students play the role of becoming residents of that place. In this way, it is hoped that students can better absorb and feel the goodness of Indigenous Knowledge values and can implement them in real life.



Figure 8. Digital-based social studies learning at Nasima Middle School, Semarang

Gather, as a web-based application that provides an interactive virtual space that simulates direct interaction in real life, can be used by teachers to design a virtual social studies learning space or world with an Indigenous Knowledge perspective. In it, teachers can choose a theme and design a layout according to the local knowledge values that will be instilled in students. In the Gather application, teachers and students can interact with each other through avatars in the application. Avatars can be modified according to the user's personality. Various kinds of sources and teaching materials can be embedded in this application. Various kinds of virtual rooms with their respective themes such as rooms, kitchens, courtyards, playgrounds mean that students will not get bored exploring the various virtual rooms.

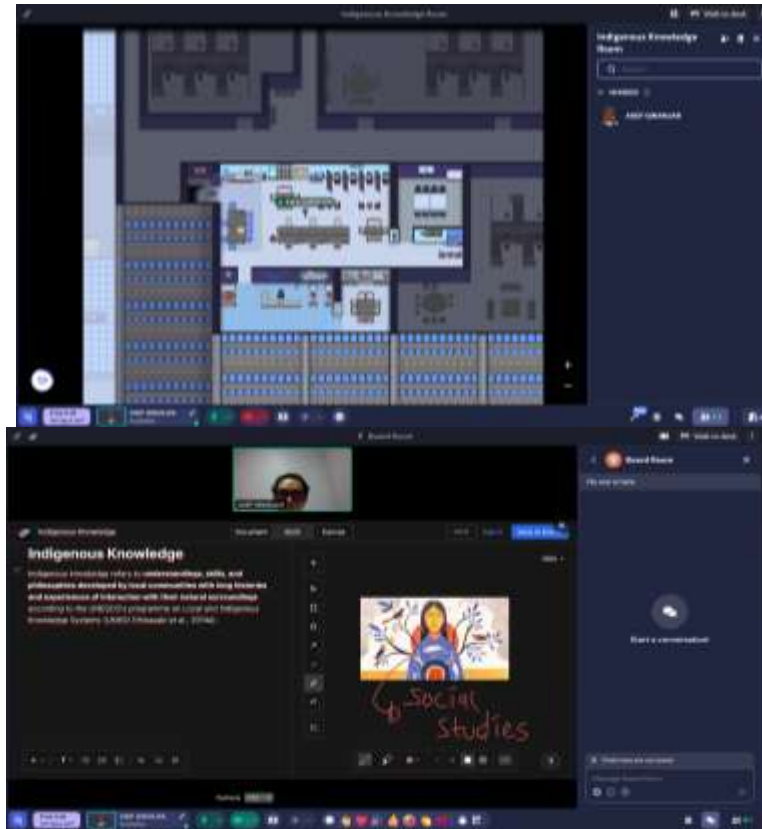


Figure 9. Utilization of the Gather Web-Based Application as a Virtual Learning Environment in Social Sciences Learning with an Indigenous Knowledge Insight

In Gather, teachers and students can hold video conferences which can be used by teachers to provide instructions, direction and reinforcement of material after students are satisfied exploring the virtual world that has been designed by the teacher. The immersion of Indigenous Knowledge values through digital-based social studies learning like this makes the learning process interesting and enjoyable.

c. Mobile Learning (M-Learning)

Mobile Learning is learning with the help of wireless mobile technology (smartphones). Mobile learning makes it easy for anyone to access information and learning materials from anywhere and at any time. The mobile learning learning model encourages active students to always learn whenever and wherever they want without being limited by space and time. This means that by using mobile learning students are given ease in learning without reducing their duties and responsibilities. Students are trained to learn independently and manage time and priorities in using smartphones.

Social studies learning with an indigenous knowledge perspective carried out through Mobile Learning, teachers can include various kinds of sources and media related to local knowledge such as videos, comics, animations, posters, articles, news and other sources. The use of Mobile Learning is not limited to just providing material, but can also be a digital-based assessment tool whose results can be monitored by anyone, anytime and anywhere. One of the schools in Semarang City that has implemented Mobile Learning is Nasima Middle School, where this school has an Android-based application that can be used as a learning medium as well as a forum for information for school members such as school activity news, savings information, counseling guidance, progress in memorizing the Al-Quran, guardianship, presence, achievement and licensing management.

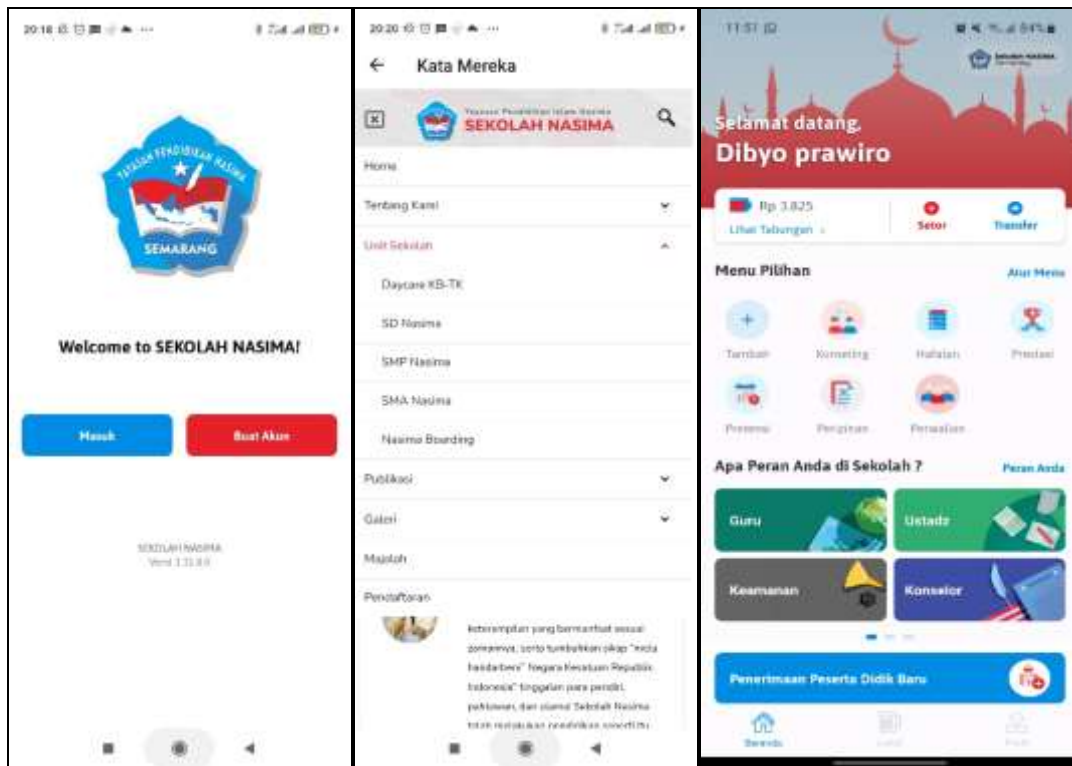


Figure 10. Mobile Learning at Nasima Middle School, Semarang

The potential for developing Mobile Learning in social studies learning with an indigenous knowledge perspective is still very wide open, such as the development of augmented reality which can include elements of tradition and culture in the city of Semarang. So that students can at any time find a cultural site, just direct their smartphone to scan and get information related to the scanned site. Of course, there is still much more that can be developed from Mobile Learning in line with the increasingly rapid advances in digital technology.

Conclusion

Based on the results and discussion, the conclusions in this article are: 1) Semarang City has a lot of cultural heritage, both tangible and intangible cultural heritage, including Indigenous Knowledge values which can be integrated into the learning process, especially social studies learning; 2) Implementation of digital-based social studies learning must be applied to teachers, students, learning objectives, teaching materials, learning media, learning methods and evaluation. If these seven components can be implemented digitally, then the digital-based social studies learning process will run optimally; 3) Digital-based Social Studies learning with an Indigenous Knowledge perspective in Semarang City Middle Schools, there are several patterns in digital-based learning. The learning pattern consists of Blended Learning, Virtual Learning Environment; Mobile Learning (M-Learning).

References

Alifiyah, Nur Lailatul Farah. (2023). Ekstensi local genius berbasis diseminasi pembelajaran dalam mengatasi krisis pendidikan karakter di era digital. *Jurnal Integrasi dan Harmoni Inovatif Ilmu-Ilmu Sosial*. 3(1), 1-7. <https://doi.org/10.17977/um063v3i1p1-7>

- Azizah, P. I., Dhewantoro, H. N. S., & Basyari, A. (2023). Integrasi Kearifan Lokal Pada Pembelajaran IPS SMP di Indonesia. *Langgong: Jurnal Ilmu Sosial Dan Humaniora*. 2(1), 37-48. <https://doi.org/10.30872/langgong.v2i1.2264>
- Creswell, 2015. Penelitian Kualitatif dan Desain Riset Memilih di antara lima pendekatan. Yogyakarta: Pustaka Pelajar.
- Dinas Kebudayaan dan Pariwisata Kota Semarang. 2015, Daftar Warisan Budaya Tak Benda Kota Semarang, Dinas Kebudayaan dan Pariwisata Kota Semarang.
- Hadi, A.C. Sungkana. (2022). Melestarikan Kearifan Masyarakat Tradisional (Indigenous Knowledge). Tersedia :<http://pustaka.uns.ac.id>
- Haerunnisa, Nining, dkk. (2020). Pengembangan Bahan Ajar Berbasis Kearifan Lokal Kampung Nambangan Sebagai Sumber Pendidikan Karakter Siswa pada Pembelajaran IPS di SD. *ELSE (Elementary School Education Journal): Jurnal Pendidikan dan Pembelajaran Sekolah Dasar*. 4(2), 19-40. <https://doi.org/10.30651/else.v4i2.4771>
- J.Moleong, Lexy. 2014. *Metode Penelitian Kualitatif, Edisi Revisi*. Bandung: PT Remaja Rosdakarya.
- Jayanti, Dwi Reni, dkk. (2023). Analisis Interpretif Tradisi Local Wisdom sebagai Sumber Nilai Karakter Pembelajaran IPS di Kabupaten Trenggalek. *Jurnal Pendidikan: Riset dan Konseptual*. 7(3), 533-542. http://doi.org/10.28926/riset_konseptual.v7i3.817
- Juliantoro, Mohamad. 2017. Peran Kepala Sekolah dalam Meningkatkan Mutu Pendidikan. *Jurnal al-Hikmah*. 5(2), 24-38.
- Juliantoro, Mohamad. 2017. Peran Kepala Sekolah dalam Meningkatkan Mutu Pendidikan. *Jurnal al-Hikmah*. 5(2), 24-38.
- Jumriani, dkk. (2021). The Urgency of Local Wisdom Content in Social Studies Learning. *The Innovation of Social Studies journal*. 2(2), 103-109. <https://doi.org/10.21831/jipsindo.v10i2.64328>
- Karsiwan, dkk. (2023) Penguatan Pendidikan Karakter Melalui Pembelajaran IPS Berbasis Kearifan Lokal di Lampung. *SOCIAL PEDAGOGY: Journal of Social Science Education*. 4(1), 39-52. <https://doi.org/10.32332/social-pedagogy.v4i1.6612>
- Kawuryan, Sekar Purbani (2009). Pemanfaatan Potensi Budaya Lokal untuk Meningkatkan Kualitas Pembelajaran IPS di SD, Tersedia: <http://pps.uny.ac.id/index.php?pilih=pustaka&mod=yes&aksi=lihat&id=40>
- Munir. 2017. *Pembelajaran Digital*. Bandung: Alfabeta.
- Peraturan Menteri Pendidikan, Kebudayaan, Riset, Dan Teknologi Republik Indonesia Nomor 13 Tahun 2022 Tentang Perubahan Atas Peraturan Menteri Pendidikan Dan Kebudayaan Nomor 22 Tahun 2020 Tentang Rencana Strategis Kementerian Pendidikan Dan Kebudayaan Tahun 2020-2024.
- Pernantah, Setri Piki, dkk. (2022). Inovasi Bahan Ajar Pendidikan IPS Berbasis Digital Flipbook Terintegrasi Local Wisdom dalam Menunjang Perkuliahan Jarak Jauh. *Jurnal Pendidikan Ilmu Pengetahuan Sosial Indonesia*. 8(2), 136-145. 10.18860/jpips.v8i2.14886
- Puspitasari, Ratna, & Resmalasari, Septiani. (2023). Penguatan Literasi Digital berbasis Kearifan Lokal dalam Pembelajaran IPS di MTs Kota Cirebon Pasca Pandemi. *Jurnal Pendidikan Ilmu Pengetahuan Sosial Indonesia*. 10(2), 129-144. <https://doi.org/10.20527/>

Rencana Strategis PTN BH UNNES 2023-2028

- Rummar, Marthen. 2022. "Kearifan Lokal Dan Penerapannya Di Sekolah. "Jurnal Syntax Transformation 3 (12): 1580–88. <https://doi.org/10.46799/jst.v3i12.655>.
- Tharamma George T, S. J. (2020). Teacher in a Digital Era - Changing Role and Competencies. *IOSR Journal Of Humanities And Social Science (IOSR-JHSS)*, 25(2), 62–64. <https://doi.org/10.9790/0837-2502116264>
- Tohri, A., Syamsiar, H., Rasyad, A., Hafiz, A., & Rizkah, R. (2022). Relevansi Metode Pembelajaran IPS Terpadu berbasis Kearifan Lokal di Era Masyarakat Digital: The Relevance of Integrated Local Wisdom-based Social Study Learning Method in the Digital Society Era. *Jurnal Teknodik*, 26(2), 115–128. <https://doi.org/10.32550/teknodik.vi.951>
- Unesco. (2022). The ICT Competency Framework for Teachers Harnessing OER Project. United Nations Educational, Scientific and Cultural Organization.
- V. Scuotto, A. Ferraris, and S. Bresciani, "Internet of Things: Applications and challenges in smart cities: a case study of IBM smart city projects," *Bus. Process Manag. J.*, vol. 22, no. 2, pp. 357–367, 2016, doi: 10.1108/BPMJ-05-2015-0074.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).