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Digital Native Characteristics: A Phenomenological Study Focused on Essential Material in Sociology Courses

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ABSTRAK

*Generasi peserta didik yang lahir di era digital (*digital native*) memiliki beberapa karakteristik yang perlu diperhatikan oleh guru. Akan tetapi, belum banyak guru yang menerapkan materi esensial pada pembelajaran yang sesuai dengan karakteristik digital native. Maka diperlukan inovasi guru untuk menyesuaikan dan mengelaborasi materi esensial sesuai dengan karakteristik digital native. Penelitian ini bertujuan mengeksplorasi penerapan materi esensial pembelajaran sosiologi oleh guru yang disesuaikan dengan karakteristik* digital native*. Penelitian ini menggunakan pendekatan kualitatif jenis fenomenologi. Teknik pengumpulan data dilakukan melalui observasi, wawancara, serta dokumentasi. Penelitian ini melibatkan 14 guru yang telah menggunakan kurikulum merdeka dan menggabungkan teknologi dalam proses pembelajaran serta 18 peserta didik yang aktif dalam pembelajaran berbasis teknologi dari 9 SMA se-Karesidenan Surakarta. Hasil penelitian menunjukkan bahwa terdapat 6 karakteristik* digital native*, yaitu kecakapan digital, fleksibilitas teknologi, pembelajaran berbasis pengalaman, visual, sosial, dan multitasking. Guru telah berupaya menerapkan materi esensial sosiologi dengan memperhatikan karakteristik* digital native*. Meskipun begitu, terdapat beberapa kendala seperti kurangnya penguasaan guru pada teknologi, kurangnya inovasi dalam menyusun media pembelajaran, serta minimnya sarana dan prasarana di sekolah. Penelitian ini berkontribusi bagi guru dalam mengadaptasi metode pengajaran sosiologi sesuai dengan karakteristik digital native. Penelitian menunjukkan bahwa guru telah menyesuaikan pembelajaran sosiologi dengan karakteristik* digital native*, meski terkendala sarana prasarana dan kurangnya inovasi.*

ABSTRACT

The generation of students born in the digital era (digital natives) possesses distinct characteristics that educators must consider. However, many teachers have yet to implement essential materials in their teaching practices that align with these characteristics. Therefore, teacher innovation is required to adapt and elaborate on essential materials to meet the needs of digital natives. This study aims to explore the implementation of essential sociology learning materials by teachers tailored to the characteristics of digital natives. The research employs a qualitative phenomenological approach. Data collection techniques include observation, interviews, and documentation. The study involves 14 teachers who have implemented the independent curriculum and integrated technology into the learning process, as well as 18 students actively engaged in technology-based learning from 9 high schools in the Surakarta residency. The findings reveal six characteristics of digital natives: digital proficiency, technological flexibility, experiential learning, visual orientation, social interaction, and multitasking. Teachers have made efforts to deliver essential sociology materials while considering these characteristics. However, several challenges remain, such as limited teacher proficiency in technology, lack of innovation in designing teaching media, and inadequate school facilities and infrastructure. This study contributes to helping educators adapt sociology teaching methods to the characteristics of digital natives. The findings indicate that while teachers have aligned sociology learning with the traits of digital natives, they face challenges related to infrastructure and innovation.

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1. INTRODUCTION

Teachers are the primary actors in the field of education, playing a crucial role in adapting to ongoing changes. There have been repeated changes to the curriculum in Indonesia, from its inception in 1947 to the implementation of the Emergency Curriculum and the *Merdeka* Curriculum by the Ministry of Education, Culture, Research, and Technology in 2022. The COVID-19 pandemic has led to setbacks in educational processes, causing learning loss and learning gaps amid the implementation of the 2013 Curriculum (Nugraha, 2022). The *Merdeka* Curriculum policy aligns with national education standards to realize national education based on the National Education System Law (*UU Sisdiknas*) Number 20 of 2003, Article 26 (Iskandar et al., 2022; Ramadhan, 2023). The *Merdeka* Curriculum fully promotes student-centered learning. At the core of the *Merdeka* Curriculum is the reduction of basic competencies in each subject to allow teachers and students to focus on prerequisite and essential competencies (Fauzan et al., 2023; Nugraha, 2022). Teachers have the flexibility to choose essential materials for their students. The goal is for students to achieve optimal learning by understanding the concepts of the material, literacy, and numeracy in accordance with their daily lives (Fatah et al., 2023; Kuswanti, 2023). The essential materials in the *Merdeka* Curriculum provide the flexibility to manage the allocation of learning time according to context and needs, allowing teachers to focus more on fostering students' character in line with the values of Pancasila (Damanik, 2023; Ramadhan, 2023).

Another objective of *Merdeka* Curriculum is to shape students in achieving 21st-century skills towards Industry 5.0. The current era has transformed from conventional learning to digital learning. Digital learning makes the learning process more enjoyable, creative, and participatory for students. The use of various media such as presentations, videos, online platforms, and other digital tools helps deepen students' understanding and enrich their learning experiences. Teachers should possess pedagogical competence to master technology and create a comfortable classroom atmosphere that stimulates students' enthusiasm for learning (Fauzan et al., 2023; Muttaqin, 2022; Rohmatika, 2023; Sumartiwi et al., 2022).

Students possess digital competencies through the material delivered by teachers, encompassing cognitive, affective, and psychomotor abilities. This is because students are digital natives, born amidst the rise of digital technology, making the internet an integral part of their lives (Muttaqin, 2022; Supratman, 2022). The characteristics of digital natives include a thirst for up-to-date information, a dislike for waiting, and a dependency on the internet. Consequently, technology can enhance their ability to independently master material, be creative, innovative, work in teams, build critical thinking, make decisions, solve problems, and integrate the knowledge they gain with the real world (Fatah et al., 2023; Fauzan et al., 2023; Wulansari & Kusumaningrum, 2020). The *Merdeka* Curriculum has a contextual and flexible approach, providing students with the opportunity to explore knowledge about deep social issues and realities based on their needs. The sociology subject allows students to observe how the dynamics of organized social communities can influence their daily lives, beyond just lectures. This approach is referred to as essential material, where teachers determine the material for students based on daily life to make learning more meaningful and stimulate students' curiosity and critical thinking about the social realities they encounter (Damanik, 2023; Fatah et al., 2023).

A study shows that the implementation of the *Merdeka* Curriculum at SMA Negeri 10 Palembang runs smoothly, but there are still shortcomings in teacher competence, student literacy, and infrastructure (Noviyanti et al., 2023). Optimal learning can be achieved if teachers can analyse the conditions and appropriate learning methods. Similar research indicates that the design of learning with gamification principles on essential material about social symptoms can create an active and enjoyable learning atmosphere. The use of video games is considered capable of increasing the motivation of students who are interested in visual content (Anastasiadis et al., 2018). Similar research shows that the use of the TikTok application as a learning medium among digital natives is quite effective. Educators and content creators are encouraged to use this platform to create effective learning (Mahbubi & Aini, 2023). Another study reveals that technology plays an important role in the learning process, as seen in the essential geography material that is difficult for students to understand, specifically the lithosphere sub-chapter on volcanism. Teachers must have strategies to help students understand and absorb the material well. The Volcano application was developed to visualize essential geography material that is risky to observe directly (Seviana et al., 2023). Similar research shows that it is important for teachers to pay attention to students' learning achievements through the selection of essential material. History subjects will become more interesting if aligned with the surrounding context through local events. Emphasizing local history as a historical issue in history learning can develop participatory dialogue among students (Stefaniak et al., 2017).

Research on the analysis of learning focusing on essential material in sociology subjects based on the characteristics of digital native students is important. There has not been much research discussing the application of essential material by teachers to align with the characteristics of students as digital natives.

Therefore, further research is needed on the application of essential material in sociology subjects. This study aims to further identify the implementation of essential sociology learning material through the use of media or technology in learning. This idea can also serve as a foundation for teachers to see the opportunities presented by the characteristics of digital native students, especially in the application of essential sociology learning material.

2. METHOD

There are five types of qualitative research: case study, grounded theory, narrative, phenomenology, and ethnography (Cresswell, 2014). This research employs phenomenology, which delves deeper into the meaning of a phenomenon or experience for the people involved (Adeniran & Tayo-Ladega, 2024). The phenomenological qualitative study in this research aims to analyse the characteristics of digital natives in learning, focusing on the essential content of Sociology subjects in high schools across the Surakarta Residency. Data collection techniques were carried out through observation and direct interviews with 14 Sociology teachers and 18 high school students at Surakarta, Boyolali, Sragen, Sukoharjo, Karanganyar, and Klaten. The selection of schools was aligned with the research focus across the Surakarta Residency and included a comparison between private and public schools. Data collection was conducted using interview techniques, which is a process of gathering data to uncover ongoing information regarding a particular category or issue (Emzir, 2021). Observations and interviews were carried out from February to April 2024. This study employed purposive sampling; a sampling technique based on specific criteria predetermined by the researcher. The criteria for teachers as informants in this study were sociology teachers who have implemented teaching within the *Merdeka* Curriculum during their teaching activities and have integrated technology or applications, especially in sociology education. The criteria for students as informants were those with a high interest in learning based on essential materials and technology. This is useful for collecting data regarding students' experiences and digital technology skills, as well as their perceptions of the essential materials provided by teachers in sociology subjects. After obtaining the data, data analysis was performed. According to Creswell, data analysis is divided into three stages: data collection through interviews and observations to gather data on how teachers adjust their teaching by incorporating essential materials into sociology subjects and aligning with the characteristics of digital natives; the next stage is analysing the interview results, and finally, reporting (Cresswell, 2014).

3. RESULT AND DISCUSSION

Result

Along with technological advancements, teachers need to adjust the material so that students understand the benefits of the learning process, ensuring it is conveyed effectively. One way to achieve this is by incorporating essential material into the lessons while integrating the use of technology. This approach is crucial considering that sociology is a field of study that discusses human relationships, and technology is an important tool in the lives of students who are digital natives. By combining these two aspects, effective and enjoyable learning can be created. Based on observations and interviews conducted at 9 high schools in the Surakarta Residency area, both public and private, it can be concluded that teachers have understood the essence of essential material, particularly in sociology education. Through the preparation of teaching modules, training sessions, teacher working groups (MGMP), and seminars, teachers are starting to learn how to inspire students' enthusiasm for learning through technology and by adjusting to their characteristics as digital natives.

When preparing teaching modules, teachers collaborate with colleagues and MGMP to determine the essential material, the duration for discussing a topic, and the type of assignments to be given, following the guidelines of the independent curriculum and the characteristics of students as digital natives. During the learning process, teachers have observed several characteristics of students who are digital natives and try to incorporate learning material that aligns with the needs and daily lives of these students. Through the preparation of teaching modules, training sessions, MGMP, and seminars, teachers are beginning to learn ways to spark students' enthusiasm for learning through technology and adjustments to their characteristics as digital natives. Below are the characteristics of digital natives and the roles that teachers play in adapting the learning process.

Tabel 1. Analysis Results

No	Digital Native Characteristic	Student Analysis	Teacher Analysis
1.	Digital Skills	Tendency to access the internet to search for information (websites, applications, AI) Able to filter the credibility of literature sources	Teachers provide opportunities for students to use mobile phones/laptops to find references Teachers allow students to search for reference sources via the internet or AI
2.	Technological Flexibility	Students discuss assignments through WhatsApp groups	Teachers use WhatsApp groups to coordinate learning activities
3.	Experience-Based Learning	Better understanding of material when linked to social realities or trending issues	eachers explain sociology material and relate it to everyday life
		Students become more aware of their surroundings	Teachers assign tasks related to the surrounding environment
4.	Visual	Students prefer learning through videos, reading illustrated materials, and games	Teachers implement engaging learning methods using audio and visual aids (PPT, Canva, videos) and develop applications for sociology learning (LMS, Glssmansakra, Sosis berbi)
5.	Social	Students are open to cooperating in groups and able to adjust to other peers	Teachers assign group tasks and randomly divide the students
		Student prefer active and interactive learning	Teachers strive to be close to students by building a conducive learning atmosphere
		Students prefer individual based learning	Teachers also provide individual assessments within group assignments
6.	Multitasking	Students doodle and chat when bored during lessons	Teachers provide ice-breaking activities when students lose focus during lessons
		Students can search for material and design infographic assignments through Canva simultaneously, producing interesting presentations	Teachers give students the freedom to access materials and design infographics, power points, and posters.

Discussion

Sociology is a discipline that explores human relationships, both direct and indirect. Digital native students are a generation accustomed to using technology. Hence, learning must adapt to the daily lives of digital natives, requiring teachers to integrate technology with essential content, particularly sociology. The *Merdeka* Curriculum emphasizes meaningful learning by connecting new material with previously acquired knowledge. This concept aligns with Ausubel's theory that meaningful learning is a process of linking new information to concepts relevant to the student's prior knowledge (Basyir et al., 2022; Wijayanti & Sila, 2021). Digital native students possess several characteristics that teachers must consider to create meaningful sociology learning experiences (Flynn, 2021; Mahbubi & Aini, 2023; Vitvitskaya et al., 2022).

The first characteristic is digital skills, which refer to the ability to utilize information and communication technology to search for, evaluate, create content, and exchange information through digital devices (Ballenghein et al., 2020; Vitvitskaya et al., 2022). Research findings indicate that both students and teachers intensively use technology in the learning process, employing social media, digital media, and news sites to find references and complete assignments. They prefer technology based learning methods due to their practicality and ease of access to material and current social issues. Despite rapid technological advancements, the fundamental role of teachers as educators remains irreplaceable (Handiyani & Abidin, 2023; Yu, 2024). Research also shows that teachers have adopted technology in their teaching. Additionally, teachers make the material relevant to daily life and integrate sociology learning material with technology. This is very appropriate considering that sociology is a science that develops according to the phenomena that occur in society (Martono, 2020). The use of technology supported by digital skills in learning is very

beneficial. As a result, learners not only receive material, but also connect new phenomena into their learning structure, resulting in meaningful learning in sociology. Therefore, teachers are expected to provide motivation, conduct literacy activities, enhance their competencies, and collaborate with parents to improve students' literacy skills (Hijjayati et al., 2022).

The second characteristic is the technological flexibility of digital natives. Technological flexibility fosters interconnectedness among individuals, becoming an integral part of digital natives' lives. They use the internet for communication, learning, entertainment, and productivity. Technology has become part of classroom learning, connecting teachers and students. Teachers not only use technology but also engage in mobile applications (Engeness, 2020). Based on the research results, the flexibility of technology is reflected in the use of digital communication by both teachers and students. Teachers use digital communication to manage and supervise students' collaborative tasks, provide additional materials, and disseminate school-related information. Digital technology (communication) has an impact on more flexible interactions between teachers and students without having to meet at school (Alenezi et al., 2023).

Students utilize digital communication as a medium for individual or group discussions to complete tasks. This role of technological flexibility is very important in the sociology learning process because there are times when they need to discuss important material without having to meet face to face, so technology acts as a liaison. This is in line with the finding that almost all learners born as digital natives utilise technology to conduct VLE (Virtual Learning Environment) (Flynn, 2021). Technology shortens the time students need to discuss online about the material being taught (Faxriddinov, 2023). Thus, it can be understood that the flexibility of technology is an innovation in communication that must be inherent in teachers and digital native students. Connected digital communication facilitates the provision of materials, information, and discussion spaces. The flexibility of technology emphasizes that technological advances accelerate the dissemination of information between teachers and students or among students (Puspitosari & Lokananta, 2021).

The third characteristic is experiential learning. Learning conducted for digital natives must essentially be aligned with how digital natives learn in their daily lives. Experience is an important part of learning, as students need to construct their experiences into learning material to make it meaningful. According to research, students prefer experiential learning, either by connecting their experiences with sociology material or engaging in new experiences through assignments given by the teacher. Experiential learning can have a positive impact on students because they can experience learning directly rather than abstractly (Hanip et al., 2023). Therefore, teachers strive to accumulate experiences related to the material so that students understand the benefits of sociology in their daily lives, whether through games, quizzes, observations, or sociodramas. This is consistent with similar research that experiential learning using games can enhance the dynamics of learning and encourage students to find their own solutions (Singha & Singha, 2024). Through the teacher's skills in applying experiential learning in sociology lessons, it makes it easier for students to understand the essence of a sub-material. This is also considering that sociology is a science that studies human actions in a social environment. through experiential learning, they can practice the social actions themselves. For example, even within the school environment, students enjoy learning outside the classroom because they gain experiences in the free curriculum that can sharpen their skills, foster high curiosity, and enjoy arguing about issues. Through this, they develop sensitivity to their living environment.

The fourth characteristic is visual. Visuals are one medium that can clearly convey information without having to read long texts. According to research, students prefer learning using technology because it can reach more aspects, including visuals. These results are in line with other research which states that students actively respond to learning with virtual platforms through graphic information such as text, images, presentations, and audio (Vitvitskaya et al., 2022). Another media that students like regarding its visual form is games. This aligns with the research of digital natives who enjoy playing games, leading to the concept of "digital is learning tool" (Rahayu et al., 2023). As facilitators, teachers play an important role in implementing appropriate learning methods. Teachers strive to implement learning that follows students' conditions. They try to utilize technology and visual-based media to deliver material and assignments. This is in line with the characteristics of digital natives who have a preference for learning through visuals (Mahbubi & Aini, 2023; Toth et al., 2022). Additionally, teachers also develop applications, either personally or with the school, such as LMS and specific platforms like "Glssmansakra" and "Sosis Berbi" (*Sosiologi Asik bersama Debi*) to enhance literacy and make learning sociology more enjoyable with visualization. Through sociology learning that is well visualised, it can make it easier for students, especially those with a visual learning style, to remember the sociology learning that has been taught. This is in accordance with research on educational games or game-based learning that enhances students' cognitive, psychomotor and affective development (Ayu Saputri et al., 2023; Pratiwi & Siswanto, 2020). The visual characteristic of digital natives can be linked to meaningful learning according to Ausubel. Meaningful learning is the integration of new

information into a person's relevant cognitive structure (Basyir et al., 2022; Budi Wijaya & Windayani, 2020). Visuals become a way for digital natives to understand information.

The fifth characteristic is social. The increasing capability of technology to facilitate activities through the virtual world makes it difficult for digital natives to interact with friends in real life. Based on research findings, it is known that when collaborating with peers, most students prefer to complete tasks individually rather than in groups. They feel that working individually helps them better develop their potential and creativity. With the aid of technology, they can easily and quickly access materials. Conversely, students believe that group work requires them to adjust to the abilities of their peers, which hinders their personal development. This sense of individualism among students aligns with similar research, which found that digital natives tend to be individualistic and antisocial due to the influence of mobile phones (Net et al., 2023). The social characteristics of digital natives are moderate (Gbadeyan & Bayrakktar, 2023). This means that even though they engage in group tasks, digital natives prefer working individually because it is perceived as more effective.

Teachers play a crucial role in addressing this issue. One essential element in sociology education that can be applied is the ability to socialize with others (Martin & Hermon, 2022; Vodanovich et al., 2015). Teachers need to adapt their teaching methods to help students maximize their potential while also developing good collaboration skills by incorporating group learning to create meaningful learning experiences (Novitasari et al., 2023). According to research findings, teachers have implemented these efforts by assigning differentiated group tasks while also giving each student the opportunity to express their opinions during lessons and assessing them individually. Other research explains that teachers interact with students by utilising social media, so that teachers can develop personal relationships (Net et al., 2023; Sitompul, 2022).

The sixth characteristic is multitasking. Multitasking refers to the proficiency of digital natives in performing two or more tasks simultaneously (Computers & Education Timing). Research findings categorize multitasking into relevant and irrelevant types. Relevant multitasking is directly related to learning, such as students working on group tasks through online platforms while simultaneously searching for materials to enhance their creativity. In contrast, irrelevant multitasking is not directly related to learning, such as students chatting with peers while listening to the teacher's explanation. Irrelevant multitasking negatively impacts the learning process, particularly in understanding the material (Jogezai et al., 2023; Toth et al., 2022). Other research shows that many students are distracted by gadgets and other devices (Rahayu et al., 2023; Toth et al., 2022). This is due to excessive cognitive load, where one task receives more focus while the other is neglected (Gbadeyan & Bayrakktar, 2023; Okoye et al., 2021).

Another type of multitasking identified in the research is multimedia and non-multimedia multitasking. Multimedia multitasking involves activities that use technology, such as sending messages on a mobile phone while listening to the teacher, or listening to music while taking notes. Non-multimedia multitasking refers to activities that do not involve electronic devices, such as doodling on the back of a notebook while the teacher explains the material (Gbadeyan & Bayrakktar, 2023; Sintawati & Indriani, 2019). Considering the phenomenon of multitasking among digital natives in education, teachers become essential actors in implementing teaching strategies that match students' characteristics. Research findings indicate that teachers have adapted to this characteristic by establishing classroom agreements for smartphone use at specific times, particularly for sociology assignments. Teachers also facilitate students by implementing differentiated instruction according to learning styles, which can enhance students' focus. Other research shows that teachers can provide game-based as to adjust the characteristics of students who like digital media (Anastasiadis et al., 2018; Ayu Saputri et al., 2023). When linked to Ausubel's concept of meaningful learning, multitasking allows students to actively construct their knowledge by integrating technology, thereby enhancing meaningful learning (Basyir et al., 2022; Hirsh-Pasek et al., 2015).

This research contributes to several indicators of research subjects including teachers, learners, and schools. For teachers, this research helps teachers see the various characteristics of learners as digital natives and adapt sociology learning to these characteristics through the application of essential materials. For learners, this research can help them understand their characteristics as digital natives and encourage them to be more active in technology-based learning, especially sociology subjects. Through this activeness, students will know the essence of the material presented by the teacher, so that meaningful learning occurs. For schools, this research can be used to evaluate school support components including facilities and infrastructure, especially those related to technology, so that the learning process can run well. This research also affects the object of research, namely, the development of sociology learning. Through this research, educators and policy makers can develop strategies so that sociology learning can be more fun and meaningful, in accordance with the characteristics of digital natives by remembering the selection of the right essential material. The limitations of this study can be seen in the research location which only covers the Surakarta Prefecture. This can be a foothold for future researchers to explore more in-depth

information about the focus of subjects other than sociology in the perspective of teachers and students in areas other than the Surakarta Prefecture.

4. CONCLUSION

Based on the results of observations and interviews with teachers and students at 9 high schools in the Surakarta Residency, it can be concluded that there are 6 characteristics of students as digital natives: digital proficiency, technological flexibility, experiential learning, visual orientation, social interaction, and multitasking. Teachers have incorporated essential materials into sociology lessons through the utilization of media and technology in the learning process. This is evident from the use of technology, including web LMS, Word Wall, Quizizz, Kahoot, Canva, Google Forms, WhatsApp, and Zoom, as well as the application "Sosis Berbi" (Fun Sociology with Debi) created by one of the sociology teachers. Teachers also determine the timing of lessons and the delivery of essential materials based on the needs and characteristics of the students through discussions with colleagues or MGMP (Subject Teacher Deliberation). Through this approach, learning becomes more meaningful as it centers on managing students' information. However, there are some obstacles in the implementation of this learning such as the lack of facilities and infrastructure at school and the lack of teacher innovation in learning, especially in exploring community empowerment and local wisdom in their neighbourhood.

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