Journal of Educational Research and Evaluation

Volume 8, Issue 4, 2024, pp. 633-642 P-ISSN: 2597-422x E-ISSN: 2549-2675 Open Access: https://doi.org/10.23887/jere.v8i4.79359



The Adaptation of Essential Material in Digital Natives Characteristics-based Sociology Subject in Senior High Schools

Riadi Syafutra Siregar^{1*}, Bagas Narendra Parahita², Ghufronuddin³, Dwi Astutik⁴, Siany Indria Liestyasari⁵, Atik Catur Budiati⁶

1,2,3,4,5,6 Education Of Sociology Anthropology, Sebelas Maret University, Surakarta, Indonesia

ARTICLE INFO

Article history:

Received May 30, 2024 Accepted October 10, 2024 Available online November 25, 2024

Kata Kunci:

Karakteristik Digital Natives, Materi esensial, Pelajaran Sosiologi

Keywords:

Digital Natives Characteristics, Essential Material, Sosiology Subjects



This is an open access article under the CC BY-SA license.

Copyright ©2024 by Author. Published by Universitas Pendidikan Ganesha

ABSTRAK

Materi esensial dibutuhkan dalam pembelajaran sosiologi untuk memberikan pengalaman belajar yang efektif bagi siswa terutama di era digitalisasi. Kesesuaian materi esensial yang diberikan berbasis karakter digital natives menambah kepedulian sosial dan kemampuan berinteraksi dalam masyarakat. Penelitian ini bertujuan untuk menganalisis materi esensial yang sesuai dalam pokok bahasan pembelajaran sosiologi yang dibutuhkan oleh digital natives dan strategi Penelitian mengimplementasikannya. kualitatif dengan teknik pengumpulan data melalui observasi dan wawancara mendalam terhadap 8 guru sosiologi merupakan metode yang digunakan dalam penelitian ini. Digunakan analisis data dengan tahapan: pengumpulan data, reduksi data, display data, verifikasi dan penarikan kesimpulan. Temuan penelitian berdasarkan urgensi (U), relevansi (R) dan kegunaan (K) memperlihatkan materi yang esensial untuk digital natives terdiri dari interaksi sosial dan dinamika sosial, perilaku menyimpang, konflik sosial, perubahan sosial, kearifan lokal dan penelitian sosial. Strategi guru dalam mengimplementasikannya dengan mengangkat materi dan contoh kasus yang relevan dalam kehidupan sosial siswa. Karakteristik digital native's yang disesuikan guru dalam materi esensial sosiologi berupa melek digital, multitasking, pengalaman belajar, kolaboratif, sosial dan berorientasi tujuan yang tidak hanya terfokus pada kompetensi, melainkan sikap dan berperilaku di era digitalisasi. Secara keseluruhan, penyesuaian materi esensial dalam pelajaran sosiologi memberikan dampak positif terhadap motivasi, kompetensi, sikap dan perilaku peserta didik dalam memanfaatkan teknologi digital dan menempatkan diri pada lingkungan sosial.

ABSTRACT

The essential material is needed in Sociology learning to give the students an effective learning experience particularly in digitalization era. The suitability of essential material provided based on digital natives character increases social concern and interacting ability among the people. This research aims to analyze the appropriate essential material in Sociology learning subject matter needed by digital natives and teacher's strategy in implementing. Qualitative research using observation and in-depth interview with 8 Sociology teachers as the technique collecting data is the research method used in this research. Data analysis was also used including the following stages: data collection, data reduction, data display, verification and conclusion drawing. The findings of research based urgency (U), relevance (R) and function (F) reveal essential material for digital natives consisting of social interaction and social dynamic, deviating behavior, social conflict, social change, local wisdom, and social research. Teachers' strategy in implementing is through raise material and case example relevant to social life of students. The characteristics of digital natives adapted by teachers in Sociology essential material are digital literacy, multitasking, learning experience, collaboration, social, and purpose-oriented focusing not only on competency but also attitude and behavior in digitalization era. Overall, the adaptation of essential material in sociology subject exerts positive impact on motivation, competency, attitude, and behavior of students in utilizing digital technology and positioning themselves in social environment.

*Corresponding author.

1. INTRODUCTION

Education development for students shifts significantly in line with digital era's demand, it is characterized with students' predisposition in searching for information through accessing internet and applying it to the learning, considered appropriate and ideal (Koumachi, 2019; Stjepić et al., 2019). Students are now belonging to digital native's category because they are inseparable from internet connection and digital technology use as daily needs. An individual searches for information different from other individuals do according to the needs they want to fulfill and to use (Kesharwani, 2020; Wilson et al., 2022). The predisposition to access information by observing and recording something presented in digital media can actually be a basic medium to deliver relevant knowledge and education. However, not all students have good digital ability, and it inhibits them from receiving good learning (Koumachi, 2019; Stjepić et al., 2019). Previous research findings state that the digital natives is a generation born when internet connection has been used commonly in interaction and become a digital culture with such characteristics as digital literate, multitasking, experiential learning, group or collaborative work, social and goal-oriented, making it feasible to be owned and actualized by the students into the learning (Flynn, 2021; Janschitz & Penker, 2022; Kincl & Štrach, 2021; Mahapatra et al., 2022).

School is responsible for the application or the use of digital technology beneficial to support the students' ability of receiving lesson, enabling them to understand and get learning experience. Teacher should have an ability of predicting or envisaging the future as the students wish. By studying how they learn and conceive the life (McCormack & Hoerl, 2020; Sadeghi et al., 2022). It is important to maintain their orientation in facing a variety of social problems in digital era today, to enable them to have positive future representation based on their self-imagination and critical idea on themselves. Digital culture era is confirmed with the use of smartphone enabling the students to access a variety of applications, including those supporting the effectiveness of learning (Martzoukou et al., 2024; Reid et al., 2023). However, the attractiveness of its use encourages the students to access further the information provided by internet and to spend time excessively; thus, it affects character and social interaction in the learning. Consequently, the learning not utilizing digital application became less popular and seemed to be underestimated by digital natives, moreover due to the effect of Covid-19 pandemic (Almazova et al., 2020; Maini et al., 2021; Nabolsi et al., 2021).

Teachers are required to skillfully accommodate the students' different perception on internet and materials taught at school. School as a place where learning activities are carried out and even the second home to students should be a place where character is built to deal with digital culture. Moreover, the change of learning method from face-to-face into online one results in the habit of using smartphone excessively. Leading the students to experience learning loss and learning difficulty. Such condition is justified by Indonesian government through the ministry of education and culture by launching Freedom Curriculum (Indonesian: Kurikulum Merdeka) containing the following characteristics: (a) soft skill and character development; (b) focus on essential material; and (c) flexible learning, that should be implemented by the school. Focus on essential material included into the characteristics of Freedom Curriculum constituting a breakthrough very efficient to students and effective to teachers in implementing the learning process. Essential material underlies the development of strong comprehension on learning, as it contains literacy and numeracy (Ardianti & Amalia, 2022; Ilmawan, 2024).

The change of 2013 curriculum into Freedom Curriculum gives the Sociology teachers a distinctive challenge. It is because of the changing references provided by Kemendikbud. In the 2013 curriculum. The learning process does not "focus verily" on essential material and it is presented in the number order in Basic Competency (Indonesian: Kompetensi dasar or KD), meanwhile the paragraph in the Learning Gain (Indonesian: Capaian Pembelajaran or CP) is presented in the Freedom Curriculum (Pratiwi et al., 2021; Purwasih et al., 2023). Sociology teachers' ability of adjusting essential material is desirable because broad literacy will enable the students to comprehend Sociology subject simultaneously and efficiently. Although the Freedom Curriculum provides certain standard to follow and implement by teachers, it does not give them freedom and creativity space to develop and to adapt teaching materials to essential materials in Sociology subject. It is because basically the appropriate essential material can give learning experience understandable and applicable to the students, recalling that the content of essential material is the relevance of daily life the students experience. Sociology is a subject very close to daily life and interaction within society and thereby can be prioritized in preparing students (digital natives) for facing digitalization era. Essential material in the curriculum is to make the curriculum more relevant and respond readily to dynamic environment and varying changes and to provide space for the learning appropriate to local context and students' needs (Davis et al., 2016; Smith et al., 2020).

In the Freedom Curriculum, competency becomes basic principle rather than content accumulation or material content. It means that the Freedom Curriculum is developed based on the competencies the

students want to grow and achieve. The Freedom Curriculum focuses mainly not only on material breadth or how much the material the teachers teach is but also on the ability students get from the material. The comprehension on the material delivered and the abilities of applying, evaluating, and even formulating knowledge are two factors underlying the Freedom Curriculum. The application of principles to the curriculum should focus on essential materials. The presence of Freedom Curriculum idea on essential materials is the solution for the teachers to implement the learning in the class. Teachers will be free from the shadows to pursue the targeted material and their quality will be affected because they have more time to invite and to guide discussion and to apply more active and other interactive learning method (Retnaningsih & Khairiyah, 2022; Zahro, 2015).

The curriculum becoming a means of achieving the objective of education can also be viewed as a supporting medium to help the students learn according to their own age. The urgency of this research is importance of understanding the students' ability of receiving appropriate information on Sociology learning should be considered by the teachers before designing teaching materials. Therefore, this research aims to analyze the appropriate essential material in Sociology learning subject matter needed by digital natives and teacher's strategy in implementing it to the students (digital natives), no study has focused on the adaptation of essential material in Sociology learning based on the characteristics of digital natives. The novelty of current study is expected to give knowledge and ideal implementing strategy a teacher, particularly a Sociology teacher, should do in Senior High School in preparing more understandable and applicable learning for the students.

2. METHODS

A qualitative research is used to discuss the problem related to the adaptation of essential material in the learning made by Sociology teachers. The qualitative research is used to find and to understand the importance of essential material adapted to the characteristics of digital natives in Sociology learning. Qualitative research is an approach used to explore and to understand individual meaning or group considered having social or humanity problems (Creswell & Creswell, 2017). The research process presents a question "how do teachers adapt essential material to Sociology learning and what are strategies used to implement it to students (digital natives) in the learning both inside and outside the class. Data were collected using through interviewing and observing research subjects consisting of Sociology teachers of Senior High School throughout Surakarta selected using purposive sampling technique based on the implementation of Freedom Curriculum the schools have carried out. The purposive sampling technique is used to select meaningful sample consistent with the specification of question and its use purpose in the research (Tracy, 2024). Based on Sociology teachers experienced with preparing P5 (Project of Reinforcing Pancasila Student Profile) and schools having implemented Freedom Curriculum for 2 semesters.

The data collection was carried out using field observation, in-depth interview, and document study. The observation data obtained are the adaptation of essential material in Sociology learning process in the classroom. Interpreting the application of Sociology learning with essential material related with teaching module. In-depth interview with 8 Sociology teachers by preparing interview guidelines of the implementation strategy taken by teachers in the learning process inside and outside the class. Interview enables the author to get informants' insight and conception potentially helping him understad the data expected and the context of research data (Aurini, J. D. et al., 2021). Meanwhile, documentation study is used to adapt the essential materials included into syllabus and Freedom Curriculum to the characteristics of digital natives; thus, the conformity of essential material is found in Sociology learning.

The data obtained in the research should be validated to make it scientific and having data validity. Therefore, data validity test was carried out in this research using triangulation of similar and different data sources. Technique of analyzing data used was qualitative data analysis with Miles and Huberman's model encompassing data collection, data reduction, data display, verification, and conclusion drawing to obtain the result of research (Miles & Huberman, 1994). The data collected through field observation, in-depth interview and documentation study were reduced to explain the essential materials in Sociology subject, the relevance of material to the characteristics of digital natives and the implementation strategy the teachers took in the learning inside and outside the class. Appropriate data display resulting from data reduction was verified and then conclusion was drawn to find the result of research, the adaptation of essential material in Sociology subject based on the characteristics of digital natives.

3. RESULT AND DISCUSSION

Results

The adaptation of essential material in Sociology subject in Senior High Schools in Surakarta is a process of implanting Sociology education very necessary to students. Students belonging to digital native's category need an appropriate ideal approach to facilitate them to receive learning material at school. The attempt of improving the quality of Sociology learning can be taken through improving teaching materials and teachers' pedagogic competency in determining appropriate essential material and implementation strategy. Adapting essential materials to the characteristics of digital natives is the important point in motivating students to receive the lesson.

Students' life along with technology and digitalization should be prioritized by the parties in developing education at school. To achieve the objective, the change of curriculum made by the government should be implemented well at school, so that teachers have opportunity and discretion to develop teaching materials creatively and students get essential quality of teaching materials. The result of interview reveals that not all teachers have discretion in developing teaching materials, while they have creativity that can be adapted to students' need based on the characteristics of digital natives. It is due to the teachers' piling administrative assignments and school having not facilitated and implemented fully the Freedom Curriculum. Moreover, several teachers assuming Sociology subject do not have Sociology education background, so that it results in difference in preparing and designing essential material conforming to the social life. This condition affects students' comprehension, competency, and motivation in attending the learning process in the class.

Essential material is the one prioritized, important, and sustainable that should be understood, comprehended, and mastered by the students and thereby can reinforce critical thinking ability because most materials contained within it are taken from surrounding environment and experienced directly. Utilizing the conformity of essential material in basic material content, particularly Sociology Subject, can create students with social character and concerned with surrounding environment. The result of interview reveals that teachers' strategy of determining an essential material starts with seeing urgency (U) of basic materials that can be applied to the community. Then, its relevance (R) to the characteristics of digital natives and its Function (F) as the students' capital in daily life should be seen as well. For more detail, see Table 1 showing the result of interview with teacher informants.

Table 1. Essential Material in Sociology Lesson

No	Materi Pokok Sosiologi	U	R	F	Predikat
1	Sociology as a science to studies society	-		-	
2	Value and Norm	$\sqrt{}$	-		
3	Social Interaction dan Social Dynamic	$\sqrt{}$			Essential
4	Socialization dan Personality Formation	-			
5	Deviant Behavior	$\sqrt{}$			Essential
6	Social Structure	$\sqrt{}$	-		
7	Social Differentiation	$\sqrt{}$	-	-	
8	Social Stratification	$\sqrt{}$	-	-	
9	Social Conflict	$\sqrt{}$			Essential
10	Social Mobility	-			
11	Social Change				Essential
12	Social Institutions	-	-		
13	Local Wisdom	$\sqrt{}$			Essential
14	Social Research	$\sqrt{}$			Essential

From Table 1, it can be seen that nearly all basic materials in Sociology lesson should be designed and should focus on essential material implemented by teachers, so that the students having entered digital culture era will have strong knowledge and comprehension to filter needs and information conformity. The urgency of material presented in Table 1 is based on the phenomenon often occurring in general society and needs solution, at least for the students to position themselves in social environment. The result of interview explains that all informants consisting of Sociology teachers have similarities and agreement on 6 basic materials for which essential materials should be prepared. Social interaction and social dynamics obtained by the students through utilizing internet connection can influence social behavior worryingly leading to deviant behavior. Then, such deviation will generate social conflict and social change within society.

Sociology Learning so far focuses on the development of students' character contained in several basic materials such as social interaction and social dynamics, deviant behavior, social conflict, social change, local wisdom, and social research. The basic material is prioritized by teachers in designing essential teaching materials because basically they pertain to social problems. This is motivated by interaction made by students either directly (offline intercourse) or indirectly (online), leading to dynamics that can results in promiscuity, bullying, online gambling, and criminality if it is not anticipated well. As a result, deviant behavior and social conflict among them will increase and limited literacy will inhibit its settlement. Additionally, social change should be comprehended with values containing in local wisdom, to enable the students to understand that there are good and bad values in social life. Students will get them from the assignment given by the teacher to carry out social research and to present the report on the research in the class.

The characteristics of digital natives should be paired with essential material existing in Sociology lesson to help students choose what is and what is not beneficial when they access internet connection and use smartphone. It is because many students access internet connection silently in the class to play online game and to watch YouTube while the learning process is running. It makes the students' concentration divided into listening and comprehending the materials delivered by teachers or playing online game or accessing social media. Sociology teacher's strategies of designing, preparing material and teaching media by involving smartphone are very important to avoid students from using it beyond the material taught and to know the students' ability of absorbing Sociology lesson. The result of interview explains that Sociology teachers always raise surrounding environment as the theme, for example: students smoking in school environment or still wearing school uniform, affiliated with a gang, and bullying. Bullying committed by students, based on the research finding, is not related to physique or family's economy, but bullying here is related to their poor skill in playing online game and addressing their parents' name in their interaction, changing their parents' name into other names (aliases). It can generate conflict and eventually lead to either individual or group quarrel both inside and outside the school. The factor causing quarrel between students of Senior High School is, among others, bullying by addressing parents' name, in addition to intercourse or assumption that their school is stronger than others'. Some teachers raised this theme to maximize essential material in basic material of social interaction, social dynamic, and social conflict.

Then, teachers give assignment related to social research material. The assignment given is to observe surrounding environment and to present the report on observation in the following meeting in Sociology learning. To maximize the achievement of students' competency and teachers' pedagogic ability in applying the teaching material containing essential material, outing class (learning outside the classroom) is required. However, some teachers find difficulty in assigning the students to explore the society directly. Because the content of Sociology learning is combined with other social studies, teachers should discuss first and achieve agreement on what material correlates with social studies learning before preparing the teaching material with essential material. Meanwhile, the students choosing Sociology concentration or subject have the following characteristics: active, exploratory, and loving to debate the materials discussed. In addition, teaching materials delivered by teachers raise students' intercourse (circle group) that restrict them from the intercourse in the class (e.g. not willing to be in one work group with other students beyond their circle group). The explanation stimulates students' social concern and gradually change their behavior in their social interaction. Consequently, the students' ability is not only limited to competency but also includes their changing attitude and characteristics in attending the learning in the class.

In the basic material of social change, teachers design essential materials and connect them to the characteristics of digital natives, the change occurring in educational environment such as the use of technology-based learning media, paper-based book replaced with smartphone, and even offline classroom changed into online one. Thus, students comprehend more easily the materials delivered by teachers so that the learning becomes more interactive, because basically students have experienced it before the lesson delivered by the teachers. To anticipate the social change generating moral degradation, teachers deliver local wisdom materials including hasthalaku, bersih dusun tradition, wayang, karawitan and sedekah bumi, indeed that are close to and can be perceived by students. The adaptation of essential material made by teachers in Sociology learning through connecting it to the characteristics of digital natives affect students' social behavior, attitude, and learning motivation positively and significantly.

Discussion

To maximize the adaptation of essential material in social learning, teachers' ability of seeing the relevance of material to the characteristics of digital natives is needed. The data findings show that teachers have not fully implemented learning related to digital literacy, even though digital literacy is inseparable from students' daily life. In the learning process implemented, teachers should use mixed method to explain

the lesson (Eynon, 2021; Tondeur et al., 2020). Mixed method is used through integrating textbook into technology- or internet connection-based learning application or media (McDougall et al., 2018; Pangrazio et al., 2020). The finding of research reveals that students allowed to use smartphone will be more active and have critical thinking in discussion. Easy access to internet provided by the school motivates them to find issues or problems related to the lesson. This change of teaching-learning method is aimed at equipping the students with more active, relevant, and sustainable learning experience (Blaschke, 2021; Moore, 2020). Learning experience using smartphone is something new to students, because in previous school level they were not freed to access internet; moreover, social media like Instagram, Twitter and Facebook have given them interesting issues. In addition, the assignment given by the teachers to write discussion report in the form of poster or infographics using application like Canva motivates and improves the students' creativity better. To support digital literacy, teachers should have ability of using latest applications familiar to the students (Evans & Robertson, 2020; Falloon, 2020).

The difference between digital natives and digital immigrants lies on, among others, multitasking characteristics. Digital immigrants switch from the use of conventional application to the use of digitalbased application, while digital natives have been familiar with digital-based application since they were born until they become students (Anzari et al., 2021; Jarrahi & Eshraghi, 2019; Li et al., 2020). It can be seen from the result of observation showing that a teacher finds difficulty in doing parallel work, including preparing teaching material through scoring or dealing with administrative affairs at school. Meanwhile, students love parallel work because they can utilize some applications simultaneously. Multitasking habit can remove laziness from students and motivates them to complete the assignment given by the teachers (Aagaard, 2019; Ettinger & Cohen, 2020). In learning process, students will access some information feasible to discuss and prepare interesting report. The more interesting the issue presented and the presentation of report prepared by the students, the more active will be the class. In basic material of local wisdom as shown in the result of observation, the students search for information, analyze, and prepare poster simultaneously without complaining anything to the teachers assigning to do so. Consequently, in addition to maximum score the students get, they also can improve their skill and creativity in operating digital application. Previous research findings state that the teachers should have pedagogic skill relevant to the characteristics of digital natives that is student-oriented with collaborative approach and innovative learning (Falloon, 2020; Taufan, 2022).

The finding of research reveals essential material is based on the principle of prioritizing current condition, prioritizing students' learning discipline, emphasizing teachers' pedagogic skill focusing on transfer of knowledge, growing self-control, practicing effective learning, concentrating on core skill, finding out students' needs, and implementing discipline in classroom. The implementation of policy about the use of digital-based application can encourage the utilization of educational technology in teaching (Bagur-Femenías et al., 2020; Benlahcene et al., 2020). The digital application-based technology is beneficial to be used in both inside and outside the classroom. The learning not completed in the class will be the assignment given by the teachers outside the class so that many students discuss it through digital application such as Google meet or WhatsApp group to complete the assignment. It is corresponding to the characteristics of collaborative work implemented by teachers to affect the use of smartphone in students, because one of characteristics contained in the curriculum is flexibility (Jonker et al., 2020; Wanner & Palmer, 2015). Thus, the flexible collaborative work gives its users comfort, and even it gives the students comfort in completing the assignment given by the teachers.

To facilitate the learning experience corresponding to the characteristics of digital natives, the essential material provided by teachers in Sociology learning should emphasize the students' closeness to the substance of teaching material. The result of research shows that essential materials delivered by teachers are the ones ever heard, experienced, and seen by the students rather than the problems far from the neighborhood. This activity is in line with the characteristics of experiential learning, because learning experience based on certain context provides concrete knowledge and direct observation becomes a learning media meaningful to students (Fadieny & Fauzi, 2021; Morris, 2020). Assigning the students to carry out social research directly on the problems occurring in surrounding environment (contextual) makes the students rich of context and enables them to conceptualize Sociology learning. Learning by experience is indeed recognized very important in developing students' character and improving their competency, but there is no single model to actualize it. The finding of research reveals that the social research containing essential materials enables students to get learning experience and to comprehend basic material of sociology learning more easily that the textbooks does. Reading textbooks gives boring experience and satiation and precludes the students from being innovative in digitalization era. The goaloriented characteristics emphasized by teachers on students can grow good behavior and attitude in defining academic and empirical differences (Håkansson Lindqvist, 2019; Kesson, 2020).

The finding of research shows that the students' smoking behavior begins to decrease because of the essential material delivered by teachers in basic material of Sociology learning. It is based on the growth of evaluative characteristic and self-reflection in the learning process, performed continuously and repeatedly in the classroom. Goal-oriented characteristics give the students strong perspective in making decision independently and evaluating their self-behavior (Schumacher & Ifenthaler, 2018; Talbi & Ouared, 2022). Thus, teachers have prepared an affective learning in sociology learning that can influence students' behavior in making decision. An appropriate and planned decision making is an important factor to influence behavior (Nilfyr et al., 2021; Waters & Bateman, 2015). In addition, goal-oriented characteristic can give the students such objectives as to position themselves within society and to develop life skill, and motivation to achieve their ideals. Motivation is divided into extrinsic motivation, intrinsic motivation and amotivation. This makes students have different motivation in preferring participation in the society and preparing the better future. Moreover, the students who will continue study in state university (Indonesian: Perguruan Tinggi Negeri or PTN) totally practice goal-oriented characteristic in absorbing sociology learning, because teachers explained the importance of Sociology in life sustainability.

Essential material in Sociology learning also influences social response useful to anticipate bad impact of information through social media application. Supporting digital application should be considered more effective in emotional processing, to avoid the self from solitude in social life. The reinforcement of social characteristics can be teachers' ideal strategy to be implemented in sociology learning so that the students will be avoided from isolating behavior, because basically sociology is the subject containing self-management essence in social life. Social life is a space for the students to have good emotional relation to their environment, because the theory obtained in the class should be the way of behaving and receiving social dynamics (Colasante et al., 2022; Surahman et al., 2022). Social character is also an approach anticipating social deviation and creating new social reality. The finding reveals that the new reality intended is the excessive use of smartphone during gathering. Gathering is previously identical with exchanging idea, discussing and having joke, but now it is replaced with using social media application individually or playing online game, so that social interaction with surrounding environment changes into interaction in cyberspace.

Result of this research has an implication to the school in implementing the Freedom Curriculum so that the teachers will have discretion in preparing the best teaching material and the adaptation of essential material to the need of digital natives in Sociology learning is expected to benefit the students. The relationship between essential material of Sociology learning and the characteristics of digital natives provides learning process emphasizing students' improved competency, positive attitude and behavior. Social situation existing within society and studied in Sociology class can activate the critical thinking space, so that students will face social reality more readily and have a means to position themselves in the intercourse. The successful adaptation of essential material in Sociology learning based on the characteristics of digital natives can be seen from the students' improved self-confidence in analyzing problems and their participation in argumentation in discussion activity. The limitation of this research considering the data and the background is not discussion the model of support to improve the quality of sociology teacher and the development of teacher profession. In addition, supporting facilities and infrastructures are also needed to improve the implementation of Freedom Curriculum, particularly in Senior High Schools in Surakarta. The future recommendations, it is important for the government to participate in planning, implementing, and evaluation how far the Freedom Curriculum can benefit education. Anticipating the different interpretation on the implementation of Freedom Curriculum is expected to exert positive and more effective effect on teaching-learning activity.

4. CONCLUSION

Considering the result of research and data analysis, it can be seen that the adaptation of essential material to Sociology learning based on digital native's character is made by teachers through considering urgency, relevancy, and function of basic materials included into syllabus. Urgency refers to basic material of Sociology that can be applied by the students to the society. Relevance is correlated to the needs of students belonging to digital native's category. Function becomes students' capital in living their daily life. The strategies the teachers have taken to implement it in the learning are to use ideal approach and to improve the quality of teaching materials. Ideal approach was used through motivating students to absorb the lesson, to project life with technology development, to represent the positive effect of digitalization use and to explain the negative effect of digital application. The quality of teaching material was improved through designing and preparing learning material and media utilizing smartphone so that the students can implement digital literacy easily in relation to the content of Sociology learning.

5. ACKNOWLEDGE

The authors expresses his gratitude to Universitas Sebelas Maret (Sebelas Maret University) with which the author is affiliated and UNS's Agency for Research and Community Service (*Indonesian: Lembaga Penelitian dan Pengabdian Masyarakat Universitas Sebelas Maret* or LPPM UNS) for granting research fund and publication with contract number: 194.2/UN27.22/PT.01.03/2024. In addition, the authors also thanks to informants and students engaged in this research.

6. REFERENCES

- Aagaard, J. (2019). Multitasking as distraction: A conceptual analysis of media multitasking research. *Theory & Psychology*, 29(1), 87–99. https://doi.org/10.1177/0959354318815766.
- Almazova, N., Krylova, E., Rubtsova, A., & Odinokaya, M. (2020). Challenges and Opportunities for Russian Higher Education amid COVID-19: Teachers' Perspective. *Education Sciences*, *10*(12), 368. https://doi.org/10.3390/educsci10120368.
- Anzari, P. P., Al Shiddiq, I. H., Pratiwi, S. S., Fatanti, M. N., & Silvallana, D. F. (2021). Teachers Technological Capability as Digital Immigrants in Learning from Home Activities. *International Journal of Emerging Technologies in Learning (IJET, 16*(7), 146–159. https://doi.org/10.3991/ijet.v16i07.21229.
- Ardianti, Y., & Amalia, N. (2022). Kurikulum Merdeka: Pemaknaan Merdeka dalam Perencanaan Pembelajaran di Sekolah Dasar. *Jurnal Penelitian Dan Pengembangan Pendidikan*, 6(3), 399–407. https://doi.org/10.23887/jppp.v6i3.55749.
- Aurini, J. D., Heath, M., & Howells, S. (2021). The how to of qualitative research. Sage.
- Bagur-Femenías, L., Buil-Fabrega, M., & Aznar, J. P. (2020). Teaching digital natives to acquire competences for sustainable development". *International Journal of Sustainability in Higher Education*, *21*(6), 1053–1069. https://doi.org/10.1108/IJSHE-09-2019-0284.
- Benlahcene, A., Lashari, S. A., Lashari, T. A., Shehzad, M. W., & Deli, W. (2020). Exploring the Perception of Students Using Student-Centered Learning Approach in a Malaysian Public University. *International Journal of Higher Education*, 9(1), 204–217. https://doi.org/10.5430/ijhe.v9n1p204.
- Blaschke, L. M. (2021). The dynamic mix of heutagogy and technology: Preparing learners for lifelong learning. *British Journal of Educational Technology*, 52(4), 1629–1645. https://doi.org/10.1111/bjet.13105.
- Colasante, T., Lin, L., France, K., & Hollenstein, T. (2022). Any time and place? Digital emotional support for digital natives. *American Psychologist*, 77(2), 186–195. https://doi.org/10.1037/amp0000708.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches.* Sage publications.
- Davis, E. A., Janssen, F. J., & Van Driel, J. H. (2016). Teachers and science curriculum materials: where we are and where we need to go. *Studies in Science Education*, 52(2), 127–160. https://doi.org/10.1080/03057267.2016.1161701.
- Ettinger, K., & Cohen, A. (2020). Pattern of multitasking behaviours of adolescents in digital environments. *Educ Inf Technol*, *25*, 623–645. https://doi.org/10.1007/s10639-019-09982-4.
- Evans, C., & Robertson, W. (2020). The four phases of the digital native's debate. *Human Behavior and Emerging Technologies*, *2*(3), 269–277. https://doi.org/10.1002/hbe2.196.
- Eynon, R. (2021). Becoming digitally literate: Reinstating an educational lens to digital skills policies for adults. *British Educational Research Journal*, 47(1), 146–162. https://doi.org/10.1002/berj.3686.
- Fadieny, N., & Fauzi, A. (2021). Usefulness of E-module Based on Experiential Learning in Physics Learning. *International Journal of Progressive Sciences and Technologies*, 25(1), 410. https://doi.org/10.52155/ijpsat.v25.1.2783.
- Falloon, G. (2020). From digital literacy to digital competence: the teacher digital competency (TDC) framework. *Educational Technology Research and Development*, 68(5), 2449–2472. https://doi.org/10.1007/s11423-020-09767-4.
- Flynn, S. (2021). Education, Digital Natives, and Inequality. *Irish Journal of Sociology*, 29(2), 248–253. https://doi.org/10.1177/07916035211004815.
- Håkansson Lindqvist, M. (2019). Talking about digital textbooks. The teacher perspective. *The International Journal of Information and Learning Technology*, *36*(3), 254–265. https://doi.org/10.1108/IJILT-11-2018-0132.
- Ilmawan, D. (2024). Implementasi Kurikulum Merdeka: Pemaknaan Merdeka dalam Perencanaan Pembelajaran Di Sekolah Dasar. *Innovative: Journal Of Social Science Research*, 4(3), 820–828. https://doi.org/10.31004/innovative.v4i3.10546.

- Janschitz, G., & Penker, M. (2022). How digital are 'digital natives' actually? Developing an instrument to measure the degree of digitalisation of university students - the DDS-Index. Bulletin of Sociological Methodology/Bulletin de Méthodologie Sociologique, 153(1), https://doi.org/10.1177/07591063211061760.
- Jarrahi, M. H., & Eshraghi, A. (2019). Digital natives vs digital immigrants: A multidimensional view on interaction with social technologies in organizations. Journal of Enterprise Information *Management*, 32(6), 1051–1070. https://doi.org/10.1108/JEIM-04-2018-0071.
- Jonker, H., März, V., & Voogt, J. (2020). Curriculum flexibility in a blended curriculum. Australasian Journal of Educational Technology, 36(1), 68-84. https://doi.org/10.14742/ajet.4926.
- Kesharwani, A. (2020). Do (how) digital natives adopt a new technology differently than digital immigrants? longitudinal Information & Management, *57*(2), study. 1–16. https://doi.org/10.1016/j.im.2019.103170.
- Kesson, H. (2020). Reading digital texts: Obstacles to using digital resources. English Teaching: Practice & Critique, 19(2), 155-168. https://doi.org/10.1108/ETPC-02-2019-0019.
- Kincl, T., & Strach, P. (2021). Born digital: Is there going to be a new culture of digital natives? Journal of Global Scholars of Marketing Science, 31(1), https://doi.org/10.1080/21639159.2020.1808811.
- Koumachi, B. (2019). The Digital Turn in Higher Education: "Digital Natives" Mythbusted. International **Technology** Education 56-62. *Iournal* of in Science. 3(1), https://www.ijtes.net/index.php/ijtes/article/download/16/pdf.
- Li, Y., Wang, Q., & Lei, J. (2020). Exploring Technology Professional Development Needs of Digital Immigrant Teachers and Digital Native Teachers in China. International Journal of Information and Communication **Technology** Education (IJICTE, 16(3), 15-29. https://doi.org/10.4018/IJICTE.2020070102.
- Mahapatra, G. P., Bhullar, N., & Gupta, P. (2022). Gen Z: An Emerging Phenomenon. NHRD Network Journal, 15(2), 246–256. https://doi.org/10.1177/26314541221077137.
- Maini, R., Sehgal, S., & Agrawal, G. (2021). Todays' digital natives: an exploratory study on students' engagement and satisfaction towards virtual classes amid COVID-19 pandemic". International Journal of Information and Learning Technology, 38(5), 454-472. https://doi.org/10.1108/IJILT-03-2021-0055.
- Martzoukou, K., Luders, E. S., Mair, I., Kostagiolas, P., Johnson, N., Work, F., & Fulton, C. (2024). A crosssectional study of discipline-based self-perceived digital literacy competencies of nursing students. Journal of Advanced Nursing, 80(2), 656–672. https://doi.org/10.1111/jan.15801.
- McCormack, T., & Hoerl, C. (2020). Children's future-oriented cognition. Advances in Child Development and Behavior, 58, 215–253. https://doi.org/10.1016/bs.acdb.2020.01.008.
- McDougall, J., Readman, M., & Wilkinson, P. (2018). The uses of (digital) literacy. Learning, Media and Technology, 43(3), 263-279. https://doi.org/10.1080/17439884.2018.1462206.
- Miles, M. B., & Huberman, A. M. (1994). Qualitative Data Analysis: An Expanded Sourcebook. Sage Publications Inc.
- Moore, R. L. (2020). Developing Lifelong Learning with Heutagogy: Contexts, Critiques, and Challenges. Distance Education, 41(3), 381-401. https://doi.org/10.1080/01587919.2020.1766949.
- Morris, T. H. (2020). Experiential learning a systematic review and revision of Kolb's model. Interactive Learning Environments, 28(8), 1064-1077. https://doi.org/10.1080/10494820.2019.1570279.
- Nabolsi, M., Abu-Moghli, F., Khalaf, I., Zumot, A., & Suliman, W. (2021). Nursing Faculty Experience With Online Distance Education During COVID-19 Crisis: A Qualitative Study. Journal of Professional *Nursing*, *37*(5), 828–835. https://doi.org/10.1016/j.profnurs.2021.06.002.
- Nilfyr, K., Aspelin, J., & Lantz-Andersson, A. (2021). Teacher-Child Interaction in a Goal-Oriented Preschool Micro-Analytical Context: Α Study. Education Sciences, 11(11), 692. https://doi.org/10.3390/educsci11110692.
- Pangrazio, L., Godhe, A.-L., & Ledesma, A. G. L. (2020). What is digital literacy? A comparative review of publications across three language contexts. E-Learning and Digital Media, 17(6), 442-459. https://doi.org/10.1177/2042753020946291.
- Pratiwi, S. S., Gita Purwasih, J. H., Rozakiyah, D. S., Apriyadi, D. W., & Utami, I. W. P. (2021). Developing E-Module for Prospective Sociology Educators: Constructing Multiple Choice Questions Based on Higher Order Thinking Skill (HOTS. International Journal of Emerging Technologies in Learning (*IJET*, 16(7), 249–256. https://doi.org/10.3991/ijet.v16i07.21197.
- Purwasih, J. H. G., Pratiwi, S. S., & Meiji, N. H. P. (2023). Pelatihan Penguatan Materi Esensial Kurikulum Merdeka untuk MGMP Sosiologi Madrasah Aliyah Se-Kabupaten Malang. GERVASI: Jurnal Pengabdian Kepada Masyarakat, 7(2), 718–730. https://doi.org/10.31571/gervasi.v7i2.5776.

- Reid, L., Button, D., & Brommeyer, M. (2023). Challenging the Myth of the Digital Native: A Narrative Review. *Nursing Reports*, *13*(2), 573–600. https://doi.org/10.3390/nursrep13020052.
- Retnaningsih, L. E., & Khairiyah, U. (2022). Panduan Pembelajaran dan Asesmen Pendidikan Anak Usia Dini, Pendidikan Dasar, dan Pendidikan Menengah. *SELING: Jurnal Program Studi PGRA*, 8(2), 143–158. https://doi.org/10.29062/seling.v8i2.1223.
- Sadeghi, S., Ayoubi, S., & Brand, S. (2022). Parenting styles predict future-oriented cognition in children: A cross-sectional study. *Children*, *9*(10), 1589. https://doi.org/10.3390/children9101589.
- Schumacher, C., & Ifenthaler, D. (2018). The importance of students' motivational dispositions for designing learning analytics. *Journal of Computing in Higher Education*, 30(3), 599–619. https://doi.org/10.26412/psr206.06.
- Smith, E. E., Kahlke, R., & Judd, T. (2020). Not just digital natives: Integrating technologies in professional education contexts. *Australasian Journal of Educational Technology*, *36*(3), 1–14. https://doi.org/10.14742/ajet.5689.
- Stjepić, A.-M., Vukšić, M., & Vugec, D. S. (2019). Digital literacy of the generation z students and their attitudes and beliefs towards ICT knowledge and skills. *International Journal Vallis Aurea*, *5*(1), 17–29. https://doi.org/10.2507/ijva.5.1.2.56.
- Surahman, S., Pratiwi, R., Imron, A., Cakranegara, P. A., & Putra, P. (2022). Multicultural Education in the Forming of Social Character in the Digitalization Era. *Scaffolding: Jurnal Pendidikan Islam Dan Multikulturalisme*, 4(3), 162–174. https://doi.org/10.37680/scaffolding.v4i3.1805.
- Talbi, O., & Ouared, A. (2022). Goal-oriented student motivation in learning analytics: How can a requirements-driven approach help? *Education and Information Technologies*, *27*(9), 12083–12121. https://doi.org/10.1007/s10639-022-11091-8.
- Taufan, M. Y. (2022). Professional Development of Teachers, Competencies, Educational Facilities and Infrastructure on Teacher Performance and Learning Achievement of High School Students in Makassar City. *Golden Ratio of Social Science and Education*, 2(1), 24–38. https://doi.org/10.52970/grsse.v2i1.168.
- Tondeur, J., Scherer, R., Siddiq, F., & Baran, E. (2020). Enhancing pre-service teachers' technological pedagogical content knowledge (TPACK): A mixed-method study. *Educational Technology Research and Development*, 68(1), 319–343. https://doi.org/10.1007/s11423-019-09692-1.
- Tracy, S. J. (2024). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact.* John Wiley & Sons.
- Wanner, T., & Palmer, E. (2015). Personalising learning: Exploring student and teacher perceptions about flexible learning and assessment in a flipped university course. *Computers & Education*, 88, 354–369. https://doi.org/10.1016/j.compedu.2015.07.008.
- Waters, J., & Bateman, A. (2015). Revealing the interactional features of learning and teaching moments in outdoor activity. *European Early Childhood Education Research Journal*, 23(2), 264–276. https://doi.org/10.1080/1350293X.2013.798099.
- Wilson, M. L., Hall, J. A., & Mulder, D. J. (2022). Assessing digital nativeness in pre-service teachers: Analysis of the Digital Natives Assessment Scale and implications for practice. *Journal of Research on Technology in Education*, 54(2), 249–266. https://doi.org/10.1080/15391523.2020.1846146.
- Zahro, I. F. (2015). Implementasi Kurikulum 2013 Kelas V Sekolah Dasar Negeri Jombor 01. *Tunas Siliwangi: Jurnal Program Studi Pendidikan Guru PAUD STKIP Siliwangi Bandung*, 1(1), 92–111. https://doi.org/10.22460/ts.v1i1p92-111.95.