# Literature Study: Development of Case-Based Teaching Materials through North Sumatra Culture

Nurhayati <sup>1),</sup> Fathurrohman <sup>2),</sup> and Ulfa Khoirotul Rosidah<sup>3)</sup> <sup>1),2),3)</sup> Yogayakarta State University

\*Corresponding Author, email: nurhayati.2023@student.uny.ac.id

Received: Oktober 25, 2024, Revised: November 30, 2024, Accepted: November, 3, 2024

## Abstract

This research aims to develop case-based teaching materials that integrate North Sumatran culture into Pancasila Education learning in elementary schools. The method used is qualitative research with a literature study approach, where data is collected from various sources such as books, proposals, articles, and scientific journals. The collected data is analyzed in depth and then presented in narrative form. The results of the study show that there is an increase in student activity and activeness in learning Pancasila Education after the application of this teaching material. In cycle I, students tend to be less active, but in cycle II, student activity increases and falls into the active category. Based on the results of the literature review, case-based teaching materials that elevate the culture of North Sumatra have been proven to make it easier for students to understand, foster interest in learning, and be effectively applied in elementary schools.

Keywords: Case-based Teaching Materials, North Sumatra culture, Pancasila Education.

## Introduction

Learning and teaching and learning activities continue to develop over time, especially in methods, media, and teaching materials. The trend of the 21st century demands an adjustment in the educational process, which focuses not only on mastery of the material but also on the development of skills relevant to future needs, such as digital literacy, critical thinking skills, effective communication, productivity, and spiritual values (Erwanto et al., 2020).

In order to students to achieve the expected competencies, teachers are expected to be able to understand the basic needs of students and create interactive and contextual teaching materials. Research shows that teaching materials based on local wisdom, which integrate the values and traditions of the local community, have been proven to improve students' understanding of the material more effectively. Rasyid, (2017) and Riwu et al., (2019) found that students more easily understood material related to local practices and customs, as the material was more relevant and could be well internalized by students.

However, the use of local wisdom in learning Pancasila Education in several elementary schools in North Sumatra is still not optimal (Amaliyah, 2023; Shufa, 2018). Coupled with the increasing influence of popular culture from outside that is widely spread through technology, many students are not familiar with their own local culture, and the tendency of monotonous learning makes students less interested in Pancasila Education materials (Farida Nur Kumala, 2017; Pingge, 2017). In fact, using digital technology, teachers can facilitate students' understanding of abstract concepts through interactive and contextual media.

This research focuses on the development of digital teaching materials based on North Sumatran culture for Pancasila Education learning in grade IV of elementary school, which is expected to create interesting learning, increase interest in learning, and advance the achievement of the Independent curriculum, especially in shaping *Pancasila Student Profile* (Andara et al., 2021; Menapace, 2018; Rahayu et al., 2021; Winatha et al., 2018).

### **Case-based Teaching Materials**

Schools, as part of the national education system, have a great responsibility to realize educational goals according to the mandate of Article 31, paragraph 3 of the 1945 Constitution, which is to form students' faith and maturity of thinking. *Case Method* It emphasizes the development of problem-solving skills by presenting real-life situations that are relevant to students' daily lives so that they learn to analyze problems, formulate solutions, and develop a social sensitivity that is solutive and responsive to the surrounding environment (Prihatsanti et al., 2018; Yuan et al., 2024). With this approach, students understand the material theoretically and practice it in a more authentic context, ultimately improving the quality of the learning process and outcomes.

## Teaching Materials Based on North Sumatra Culture

Local wisdom is a typical identity of each region, which can enrich thematic learning according to the needs of students. In the context of Pancasila Education, learning based on local wisdom, such as the Batak Toba culture, is effective in instilling the concept of diversity and equipping students to face the challenges of the times (Kartono et al., 2021; Editorial, 2015). For example, Rumah Bolon as a traditional house of Batak Toba, Gordang musical instruments, and Tor-tor dance, which has a deep cultural significance (Shufa, 2018; Widiastuti et al., 2020). Based on the existing learning challenges, the researcher developed case-based teaching materials that integrate the culture of North Sumatra to motivate students and encourage teachers' creativity in teaching.

## Methods

This study uses a qualitative descriptive approach with the literature study method as the main technique. This approach involves collecting data from a variety of reference sources, including books, relevant research results, as well as academic literature, to build a solid theoretical foundation (Susanto & Untari, 2022). The data analysis process refers to the model developed by Miles and Huberman, as described in Sugiyono (2010). This analysis model includes three mutually sustainable main stages: data reduction, data presentation, and drawing a conclusion.

The data sources used in this study include academic documents such as theses, scientific articles, and relevant journals, especially those supporting studies related to developing teaching materials based on a case study approach and local wisdom from North Sumatra. The data obtained through the collection stage is analyzed in depth, using a critical and systematic approach to thoroughly explore and understand its meaning. The results of this analysis are then presented in the form of a structured narrative to facilitate interpretation (Fetra Bonita Sari, Risda Amini, 2020; Putri et al., 2020).

## **Result and Discussion**

The development of technology and science encourages educational institutions to design and collaborate to achieve educational goals. Developing electronic and culture-based materials can improve the quality of education through continuous improvement of student achievement. Computer-based teaching materials can blend various media such as text, images, audio, video, and animation and create dynamic and interactive presentations (Malalina & Kesumawati, 2013).

This case-based teaching material is an electronic teaching material based on North Sumatra Local Wisdom. Based on the presentation of the above problem, the researcher is interested in conducting a development research entitled Development of Case-Based Teaching Materials through North Sumatra Local Wisdom on the Theme of the Beauty of Togetherness in Grade IV Elementary School. To describe the North Sumatran ethnicity, especially Traditional Clothes, Traditional Houses, and Regional Specialties on the theme of the Beauty of Togetherness subtheme of Cultural Diversity of the Bangsaku Grade IV Elementary School through Case-Based Teaching Materials through North Sumatra Local Wisdom. The following research results are used as data to strengthen the research.

Table 1. Data Literature Review						
Writer	<b>Research</b> Title	<b>Research Results</b>				
Sakundari & Rizqi (2024)	Analysis of the Needs of Digital Teaching Materials in PKN Learning in Elementary Schools	Teachers still use conventional teaching materials; the need for digital teaching materials is diverse and complex; Stakeholder support is needed. The development of North Sumatran culture-based teaching materials can help adjust to the digital era.				
Erwanto et al. (2020)	Analysis of the Needs of Teaching Materials Based on Local Wisdom in Pineapple Cultivation with Honey Bought	Teachers need teaching materials that increase students' enthusiasm for learning, creativity, and activities. The development of teaching materials based on local wisdom in the form of e-modules can improve the quality of learning.				
Susilo & Prasetyo (2020)	Android-Based2DMobileLearningTeachingMaterials:A Technology-BasedLearning in DealingwithIndustrialRevolution 4.0	Android-based mobile learning helps students learn independently and reduce dependence on online games, increasing students' enthusiasm and learning achievement.				
Widiantari et al. (2021)	Interactive Teaching Materials Based on Balinese Local Wisdom The Beautiful Theme of Togetherness	Students are less interested in learning Pancasila Education because the teaching materials are not interesting. Interactive teaching materials based on local Balinese wisdom on the theme The Beauty of Togetherness in Grade IV Elementary School were declared valid and attracted students' interest.				
Wei (2021)	A Case Study of Primary School Chinese Reading Teaching Based on Core Literacy	Learning to read Chinese based on cultural literacy improves students' language, thinking, and core literacy skills, as well as showing cultural influence in meeting students' learning needs.				
Utaminingsih & Zuliana (2018)	Design of Thematic Integrative Learning Based on Local Advantage in Elementary School	Integrated thematic learning design based on local excellence can help students love the homeland and preserve culture through the integration of local excellence.				
Handayani et al. (2023)	21st Century Learning: 4C Skills in Case Method and Team-Based Project Learning	The case method and project-based learning improve the 4Cs skills in students, with high scores in critical thinking, creativity, communication, and cooperation.				

Table 1. Data Literature Review

Hiltz (2021)	A Case Study of School Technology Support Networks	Studies on technology support networks in schools show the importance of teacher social networks and leadership support in the integration of educational technology.		
August (2023)	Case Method Model: Strategies for High School Students to Overcome Problems in Learning Poetry	The case method helps students overcome difficulties in writing and reading poetry, improving their understanding and skills in learning poetry.		
Maunula et al. (2023)	Elementary School Teachers' Experiences of Implementing the Teacher Classroom Management Method.	Student diversity challenges teachers' teaching skills; Positive communication improves student interaction and learning outcomes. Case method support helps teachers face classroom challenges.		
Supriyono & Lestrari (2023)	Development of Poster Teaching Materials Based on North Sumatra Local Wisdom on the Theme of the Beauty of Togetherness in Grade IV Elementary School	Poster teaching materials based on North Sumatra local wisdom on the theme of togetherness in grade IV elementary school were declared valid and suitable for use in learning.		
Barbara (2022)	Case Studies in Effective Schools Research	Case studies in schools are effective in increasing the attention of teachers and students to argue, encouraging improved teaching and learning performance.		
Tolu et al. (2023)	Effect of Model Teaching Method on Essay Writing Performance of Senior Secondary School Students in Ekiti	Model teaching methods improve students' attitudes and academic performance in writing essays, using applications such as PDF, YouTube, and Google Sites for the design of teaching materials.		
Bonastia, C. (2022)	The Case for School Integration	Case studies of school integration improve teacher performance and student motivation, making a positive contribution to shared learning.		
Thomas, G. (2023)	Case Study Methods in Education	Provide critical analysis and development maps of case study methods in education, as well as provide guidance for students to plan their case studies.		

## Discussion

Research Kartono et al., (2021) defines local knowledge (*indigenous knowledge*) as place-based knowledge formed from the experiences of local communities, acquired through adaptation, imitation, and experimentation. This knowledge arises from daily practice through the approach *Trial and error*, empirical, practical, and integrated into local traditions and culture. Local wisdom itself is the result of human interaction with its natural environment, which develops over time and is inherited across generations. According to Nur Afinni Dwi Jayanti et al., (2017) Teaching materials based on local wisdom based on local cultural values can be a learning innovation in Indonesia, helping students achieve educational goals as a provision for life.

Meanwhile, Yuniarto et al., (2022) It shows that the development of character education based on local wisdom in schools produces essential values such as religion, social, tolerance, mutual cooperation, and patriotism. These values are applied through learning models, syllabi, and lesson plans that integrate local wisdom, which serves as a standard in character education in schools, especially in instilling local cultural values effectively. By integrating local wisdom in teaching materials, it is hoped that students will not forget local knowledge.

In the development of case-based teaching materials for North Sumatran culture in PPKn subjects, development research methods are used to produce and test the feasibility of products based on expert validation Alanur et al., (2022); Susilawati et al., (2022) The validity of the product is measured through stages that involve the selection of materials according to the Competency Standards and Basic Competencies, as well as indicators in the class IV thematic book. After the material is prepared and the teaching materials are designed, validation is carried out by material, media, and learning experts, who show good results according to the needs of students and local conditions. Mudlofir's opinion (2018) supports that case-based electronic teaching materials are essential to meet the needs and conditions of students, as well as ensure that learning takes place in a relevant context in the context of local wisdom.

## Conclusion

Based on the analyzed research, several important findings are related to the development of teaching materials and learning methods and improving the quality of education. Teachers still use a lot of conventional teaching materials, while the need for digital teaching materials that are relevant to the modern era continues to increase. The development of teaching materials based on local wisdom, such as the culture of North Sumatra and Bali, has been proven to attract students' interest, increase creativity, and support contextual learning (Agustin I. N. N. & Supriyono A, 2009; Sakundari & Rizqi, 2024; Widiantari et al., 2021). Case-based learning methods are effective in improving students' understanding of complex materials, as well as utilizing technology to facilitate learning (August, 2023; Tolu et al., 2023). These studies emphasize the importance of interactive, technology-based, innovative teaching materials and learning approaches that integrate local cultural values to improve education quality holistically.

#### Acknowledgments

We would like to thank the Indonesian Education Endowment Fund (LPDP) Scholarship, which has provided support from help cost conferences, accommodation, and materials for our research and to Yogyakarta State University.

## References

Agustan, A. (2023). Case Method Model: Strategies for High School Students to Overcome Problems in Learning Poetry. *AL-ISHLAH: Journal of Education*, 15(3), 3179–3188. https://doi.org/10.35445/alishlah.v15i3.3864

Agustin, I. N., N. & Supriyono, A. (2009). Educational problems in Indonesia. Magistra, Vol 21, No 69

(2009):	Magistra	June	Edition,	15.
http://journal.u	nwidha.ac.id/index.php/m	agistra/article/view/1	86	

 Alanur, S. N., Nawing, K., Septiwiharti, D., Syuaib, D., & Jamaludin, J. (2022). Development of PPKn Teaching Materials Loaded with Pancasila Student Profile Values as Strengthening Student Citizenship Character. *Journal of Civic Education*, 12(2), 107. https://doi.org/10.20527/kewarganegaraan.v12i2.15281

Amaliyah, N. (2023). DEWANTARA+Vol+2+no+3+September+2023+p+129-147. 2(3).

- Andara, S., Dewi, D. A., & Furnamasari, Y. F. (2021). Increasing the spirit of nationalism through PPKN learning in elementary schools. *Tambusai Education Journal*, 5(3), 7733–7737.
- Erwanto, E., Roshayanti, F., Siswanto, J., & Hayat, M. S. (2020). Analysis of the needs of teaching materials based on local wisdom in the cultivation of honey pineapple. *Journal of Educational Quality*, 1(3), 75–85. https://doi.org/10.51651/jkp.v1i3.12
- Farida Nur Kumala, P. S. (2017). Development of Science Teaching Materials Based on Local Wisdom. November, 978–602.
- Fetra Bonita Sari, Risda Amini, M. (2020). Jurnal basicedu. Basicedu Journal, *Journal of Basicedu*, 5(5), 3(2), 524–532. https://journal.uii.ac.id/ajie/article/view/971
- Kartono, G., Sugito, S., & Azis, A. C. K. (2021). Development of Batak Local Content Teaching Materials for Secondary Schools in Medan City. *Gorga : Journal of Fine Arts*, 10(1), 215. https://doi.org/10.24114/gr.v10i1.25971
- Malalina, & Kesumawati, N. (2013). Development of Computer-Based Interactive Teaching Materials. *Journal of Mathematics Education*, 7(2), 55–70.
- Menapace, B. (2018). Civic education as a democratic education with character. *Print and Promo*, 56(11), 40–42.
- Nur Afinni Dwi Jayanti, U., Susilo, H., & Suarsini, E. (2017). Analysis of the Needs of Local Potential-Based Learning Resources and Biology Learning Media for Class X High School in Lampung Province. *Proceedings of Seminan Postgraduate Science Education UM*, 2, 591–599.
- Pingge, H. D. (2017). Local wisdom and its application in schools. *Journal of Education Sumba (JES)*, *1*(2), 128–135. https://doi.org/10.53395/jes.v1i2.27
- Prihatsanti, U., Suryanto, S., & Hendriani, W. (2018). Using Case Studies as a Scientific Method in Psychology. *Psychology Bulletin*, 26(2), 126. https://doi.org/10.22146/buletinpsikologi.38895
- Putri, I. P., Yuniasih, N., & Sakdiyah, S. H. (2020). Development of e-modules based on kvisoft flipbook maker for the struggle of heroes in grade IV of elementary school. *National Seminar of PGSD* UNIKAMA, 4, 523–530.
- Rahayu, S., Ladamay, I., Ulfatin, N., Kumala, F. N., & Aminatun, S. (2021). Development of Electronic LKPD for Thematic Learning Based on High Order Thinking Skill (HOTS). *Journal of Basic Education*, 13(2), 112–118.
- Rasyid, R. E. (2017). Character education through local wisdom. *Second National Seminar on Progressive and Encouraging Education*, 279–286.
- Editor. (2015). Journal of Educational Technology. *Journal of Educational Technology (JTP)*, 8(2), 530–537. https://doi.org/10.24114/jtp.v8i2.3329
- Riwu, I. U., Laksana, D. N. L., & Dhiu, K. D. (2019). Development of Electronic Teaching Materials with Multimedia Charges on the Theme of Caring for Living Beings for Grade IV Elementary School Students in Ngada Regency. *Journal of Education Technology*, 2(2), 56. https://doi.org/10.23887/jet.v2i2.16182
- Sakundari, K. I., & Rizqi, H. Y. (2024). Jurnal basicedu. Basicedu Journal, *Basicedu Journal*, 8(1), 601–614. https://journal.uii.ac.id/ajie/article/view/971
- Shufa, N. K. F. (2018). Learning Based on Local Wisdom in Elementary Schools: A Conceptual Framework. *INOPENDAS: Scientific Journal of Education*, 1(1), 48–53.

https://jurnal.umk.ac.id/index.php/pendas/article/view/2316

- Susanto, D., & Untari, E. (2022). The experimentation of the Make A Match (MM) and Two Stay Two Stray (TSTS) learning models was reviewed from Emotional Intelligence (EQ). *DICTION: Journal of Educational and Social Studies*, 3(2), 44–50. https://doi.org/10.53299/diksi.v3i2.201
- Susilawati, W. O., Veriyani, F. T. V., Pratiwi, Y., Sari, T. A. N., & Riani, S. (2022). The development of PPKn SD digital textbooks is integrated with Pancasila student profiles in supporting the independent curriculum. *Journal of Education, Social Sciences, and Religion*, 8(1), 187–201. https://doi.org/10.53565/pssa.v8i1.452
- Tolu, O. O., Aderonke, O. G., & Safi, L. (2023). Effect of Model Teaching Method on Essay Writing Performance of Senior Secondary School Students in Ekiti. 7(1), 15–21. https://doi.org/10.11648/j.ajeit.20230701.13
- Widiantari, N. N., Gading, I. K., & Astawan, I. G. (2021). Interactive teaching materials based on local Balinese wisdom The theme of the beauty of togetherness. *Indonesian Journal of Multicultural Education*, 4(1), 13–22. https://doi.org/10.23887/jpmu.v4i1.34796
- Widiastuti, U., Sembiring, A. S., & Mukhlis, M. (2020). Development of North Sumatra Ethnic-Based Learning Media. *Virtuoso: Journal of Music Studies and Creation*, *3*(2), 84. https://doi.org/10.26740/vt.v3n2.p84-88
- Winatha, K. R., Suharsono, N., & Agustin, K. (2018). Development of Mathematics Project-Based Interactive E-Modules. *Journal of Technology and Vocational Education*, 4(2), 188–199. https://ejournal.undiksha.ac.id/index.php/JPTK/article/viewFile/14021/9438
- Yuan, X., Zhang, C., Li, J., Niu, J., Li, X., & Shi, X. (2024). A Deep Learning-Based Teaching Design for High School Geography Units: Taking the Example of Landforms of the Humanistic Education Edition. *Journal of Contemporary Educational Research*, 8(2), 176–182. https://doi.org/10.26689/jcer.v8i2.6039
- Yuniarto, B., Lama'atushabakh, M., Maryanto, M., & Habibi, A. (2022). Pancasila Education in the Independent Curriculum. *Journal of Social and Science*, 2(11), 1170–1178. https://doi.org/10.59188/jurnalsosains.v2i11.522