

Identification of Methods in Developing Basic Social Studies Learning Materials Based on Culture in the Midst of the Issue of Artificial Intelligence Development

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Abstract: The development of Learning Materials itself as a benchmark for lecturers' mastery of the material in the higher education curriculum. Various media can be utilized in the development of Learning Materials to ensure the presentation of information that is enjoyable and meaningful. Historical review has proven that existing and developed Learning Materials are very useful in the lives of students, but when reviewing the standard education based outcome (OBE) which is correlated with the standard of graduate competency, it is still considered necessary to develop Learning Materials in every educational institution or university. Judging from the study that was conducted, this research is a qualitative research with a phenomenological type. Phenomenology is also a philosophical approach to investigating human experience. In this study, researchers are required to develop Learning Materials from the results of investigations into Learning Materials that have been developed by previous experts. The results of phenomenological research show that the delivery of messages and ideas in Learning Materials must be designed based on the subjective experiences of students. Narrative, dialogical, visualization, reflective, experiential, and technology-based approaches have proven effective in creating meaningful learning.

Keywords: *Learning Materials; Social Science; Artificial Intelligence*

INTRODUCTION

In the era of technology 4.0, various learning resources and Learning Materials have been developed to meet the needs of the learning process. This is important regarding the issue of the relevance of the development of Learning Materials amidst the development of artificial intelligence that can structure sentences in a short time with certain commands. Learning Materials are often used as references in various universities to understand a material and direct the learning process. Related to the ideas and concepts of an educator, Learning Materials are still needed with consideration of the use of methods in Learning Materials in compiling sentence structures. Learning Materials are used to ensure connectivity between materials and the characteristics of students who vary from visual intelligence, observing and receiving information in their brain structures. The development of Learning Materials has now grown rapidly, such as the availability of e-books, e-modules, visual Learning Materials and so on.

The relevance of Learning Materials is reviewed from the culture and academic culture that exists in educational institutions based on philosophy and sociology. Culture is used as a place to stimulate knowledge and character based on the habits created in the educational environment where it is held. The development of artificial intelligence is an important issue in the development of Learning Materials in facing global competition by prioritizing textual literacy. In compiling Learning Materials, an educator should conduct an interconnected discussion to design Learning Materials with expert considerations in the domain. Interconnected discussion as a control in the development of ideas from researchers, practitioners, and the community on the internet as relevant study materials. Of course, the semester learning plan is directed by the strategic plan in each university.

The development of Learning Materials itself is a benchmark for lecturers' mastery of the material in the higher education curriculum. Various media can be utilized in the development of Learning Materials to ensure the presentation of information that is enjoyable and meaningful. The review of meaningfulness is certainly inseparable from the role of experts in their fields in the development of Learning Materials. The role of experts as reviewers in compiling sentence structures, using methods, media and learning resources is important in today's era.

Historical review has proven that existing and developed Learning Materials are very useful in the lives of students, but when reviewing the standard education based outcome (OBE) which is correlated with the standard of graduate competency, it is still considered necessary to develop Learning Materials in every educational institution or university. Learning Materials are used to direct students to learn independently or in groups according to the learning achievements of the courses that have been planned by the educator. Learning Materials are also used to develop a reading culture for students and can be used anywhere and anytime. Culture where character formation is associated with the disciplines developed in Learning Materials. The availability of Learning Materials that are developed later has hopes that are in accordance with the ideals of the Indonesian nation which are based on Pancasila, the Constitution and the current regulations of the Minister of Education.

The development of this material takes into account previous studies sourced from reference books, book chapters, and scientific journals. The selection and consideration of the use of methods are based on the analysis of sentence structures developed in Learning Materials. In certain situations and when an educator will use a certain method in compiling the sentence structure. So that the variety of studies becomes important to consider the novelty of the information presented. The variety of cultures and educational climates can be used as examples by considering contextual methods in their development. While concept analysis cannot be separated from the role of experts and specialists in the field.

Social Science Basic Concept Learning Materials examine various disciplines in social sciences. Social sciences experience changes all the time influenced by the diverse culture of society and the development of information and communication technology. The development of Learning Materials is still textual by considering the influence of technology in the cognitive and psychological domains.

In the cognitive domain, books can control the level of readability of information obtained and remembered by students, while the use of technology in e-books allows students to read all the contents of the book in a short period of time. Consideration of information

acquisition in the development of this teaching material is important. In the psychological domain, books do not have a high saturation impact compared to the use of technology in e-books. There is self-control over access to information making the information obtained effective.

Meanwhile, psychological studies on the use of technology in e-books can lead to boredom in reading which is caused by excess light entering the eyes, as well as the intensity of the brain in understanding the concepts and material.

Updating the material is not merely a reason for developing basic social studies concept Learning Materials, but updating the material is positioned because of changes and social phenomena that occur in the digital community environment regarding the use of information. And the methodology used in developing basic social studies concept Learning Materials does not refer to Research and Development (R&D), but rather to the phenomenological methodology. This is because other experts at STAI Al-Azhar have developed it first, which has an impact on the study of phenomena that occur in people's lives in a complex and ever-evolving manner. Learning activities are taken into consideration in compiling these Learning Materials starting from understanding the concept, connecting the concept with real life and studying the benefits for their lives.

Based on the implementation of the independent curriculum and the use of the national framework curriculum for higher education, the relevant methods are case-based and problem-based. Of course, the use of these methods is used in transforming the arrangement of sentence structures in Learning Materials later. The study of the use of cases in sentence structures is still a polemic among experts because of the various points of view regarding cases and the in-depth study of material, information that is so complex. Therefore, in this research, the researcher took the title Identification of Methods in the Development of Basic Social Studies Concept Learning Materials based on Culture in the Al-Azhar Menganti Gresik STAI Environment. Various considerations for researchers to take this title such as the study of religious moderation mandated by the Ministry of Religion and the Pancasila Student Profile in the independent curriculum and the Implementation of the Indonesian National Framework Curriculum. In this study, the researcher only acts as a learning designer who develops Basic Social Studies Concept Learning Materials

Learning Materials are adjusted to the learning outcomes of the course and competency maps whose development refers to the Model developed by Dick and Carey. Competency mapping of Basic Social Studies Learning Materials includes Procedural, Hierarchy, clusters, and combinations in lecture materials referring to previous literature studies. Characteristics of students including visual intelligence in reading, observing, and understanding sentence structures are used as further considerations. Characteristics refer to pedagogical studies that include visual, verbal, and tactical abilities. Furthermore, the use of image media in Learning Materials that have visual abilities can understand ideas, information and phenomena. Feedback in Learning Materials considers the achievement of material starting from learning activities in reading, observing and analyzing.

RESEARCH METHODOLOGY

Judging from the study conducted, this research is a qualitative research with a phenomenological type. Phenomenology is also a philosophical approach to investigating human experience. In this study, researchers are required to develop Learning Materials from the results of investigations into Learning Materials that have been developed by previous experts. Domain mapping and studies integrated into institutional culture are novelties from the results of investigations into Learning Materials that have been developed by other experts. The development of Learning Materials is generally developed following the direction and goals of the organization.

Phenomenology means a method of thinking to obtain new knowledge or develop existing knowledge with logical, systematic critical steps, not based on a priori/prejudice, and not dogmatic. In phenomenological research involves careful and thorough testing of human experience consciousness. The main concept in phenomenology is meaning. Meaning is an important content that arises from the experience of human consciousness. every human experience is actually an expression of consciousness.

To achieve a phenomenological attitude, developing a phenomenological method is planned to identify the core structure and features of human experience. The identification used in this study is the use of methods in Learning Materials as an expert's experience in conceptualizing and compiling Learning Materials. The stages used to obtain research data are as follows: 1) Reading and re-reading; 2) Initial noting; 3) Developing Emergent themes; 4) Searching for connections across emergent themes; 5) Moving the next cases; and 6) Looking for patterns across cases. The types of data obtained will be in the form of observations and interviews, both in-depth interviews (in-depth interviews)¹⁷. Phenomenological research research subjects can be determined to represent individual groups that are considered important in the study.

RESULTS AND DISCUSSION

The results of phenomenological research show that the delivery of messages and ideas in Learning Materials must be designed based on the subjective experiences of students. Narrative, dialogical, visualization, reflective, experiential, and technology-based approaches have proven effective in creating meaningful learning. Therefore, teaching material developers need to consider these approaches to create relevant, personal, and inspiring learning experiences.

Table 1.2 Identification of Method

Method	Description	Advantages	Disadvantages	Example of Implementation
Gamification	Embedding game elements into online learning materials, such as points, levels, or challenges.	<ul style="list-style-type: none"> - Increases learning motivation. - Makes materials more engaging and interactive. 	<ul style="list-style-type: none"> - Requires creative design. - Not all social studies concepts are suitable for gamification. 	Creating quizzes based on historical stories, such as 'The Journey to Proclamation of Independence'.
Simulation and Visualization	Presenting materials through graphics, animations, or AI-based simulations.	<ul style="list-style-type: none"> - Simplifies understanding of abstract concepts. - Provides deep learning experiences. 	<ul style="list-style-type: none"> - Requires high-tech devices. - Relatively high development costs. 	Interactive simulation of environmental changes caused by human activities using AI platforms.

Interactive Chatbot	Using AI-based chatbots to provide responses and feedback to students.	<ul style="list-style-type: none"> - Offers personalized learning experiences. - Answers students' questions in real time. 	<ul style="list-style-type: none"> - May not handle complex questions well. - Requires proper configuration. 	A chatbot answering students' questions about social interaction in social studies.
Microlearning	Delivering materials in small chunks (short modules) focusing on one main idea.	<ul style="list-style-type: none"> - Helps students absorb information easily. - Suitable for flexible learning. 	<ul style="list-style-type: none"> - Too simplistic for concepts requiring in-depth analysis. 	Short videos on the impact of urbanization on social environments in major cities.
Contextualization	Delivering materials by linking them to current situations or events using AI.	<ul style="list-style-type: none"> - Makes concepts easier for students to relate to reality. - Encourages critical thinking. 	<ul style="list-style-type: none"> - Requires relevant and accurate up-to-date data. 	Teaching environmental sustainability by linking it to the issue of plastic pollution in Indonesia.
Recommendation System	Using AI to recommend materials tailored to students' learning needs.	<ul style="list-style-type: none"> - More personalized learning. - Increases learning efficiency. 	<ul style="list-style-type: none"> - Risk of bias in recommendation algorithms. - Cannot replace direct discussions. 	A system recommending videos or additional modules on human-environment interactions.

The method matrix that was compiled aims to identify and explain various approaches that can be used in presenting messages and ideas from online Learning Materials on basic concepts of Social Sciences (IPS). Each method has its own uniqueness in delivering material, from increasing student learning motivation, facilitating the understanding of abstract concepts, to creating a more personal learning experience through the use of Artificial Intelligence (AI)-based technology. Methods such as gamification, simulations, and interactive chatbots utilize AI technology to increase the interactivity and appeal of Learning Materials, thereby helping students understand often complex IPS material.

However, although these methods offer various advantages, there are also weaknesses that need to be considered. For example, gamification requires appropriate creative design, while AI-based simulations require technological devices with relatively high development costs. In addition, methods such as recommendation systems face the risk of algorithmic bias, which can affect the accuracy of the material recommended to students. Thus, educators need to carefully consider the combination of methods that are most relevant to their teaching context, ensuring that technology is not only a tool, but is also able to support balanced critical learning.

IPS is part of the school curriculum, through IPS material can train in terms of affection, cognition, and psychomotor students to become humans who can build Indonesia. IPS is known as a subject that tends to use memorization techniques, but IPS material processes and reasoning related to humans and the surrounding environment. IPS itself teaches students about the real conditions in everyday life so that students understand and know how to solve existing conditions through reasoning. IPS aims to have the ability to develop themselves through talents, interests and the environment and gain knowledge, values and attitudes

In the world of education, technological developments, especially artificial intelligence (AI), have presented new challenges and opportunities. Online Learning Materials are now one of the main media in learning, especially in the field of social sciences (IPS). However, the effectiveness of these Learning Materials is highly dependent on the methods used to present messages and ideas, especially in the context of rapid technological change.

The presentation method in online Learning Materials plays an important role in ensuring students' understanding of the basic concepts of IPS. IPS concepts, which include an understanding of society, the environment, and social relationships, require interactive and adaptive presentation methods. AI technology enables personalization of learning based on students' needs, such as through a material recommendation system or virtual tutor.

According to Brown (2022), "AI-based learning allows the teaching process to be more efficient, because it is able to analyze the specific needs of students and provide appropriate learning experiences." In the context of IPS, this approach can be used to explain complex concepts through simulations or digital mapping.

The use of game elements in online Learning Materials can increase students' motivation to learn. For example, interactive quizzes or challenges based on social stories can be used to deepen students' understanding of concepts such as the relationship between humans and the environment.

This method is very relevant in conveying abstract concepts. With AI, simulations can be made more dynamic, such as modeling social relationships in society or environmental changes due to human activities.

The application of AI-based chatbots in online Learning Materials can help students understand concepts in a more personal way. Chatbots can provide direct feedback and answer student questions in real time.

Despite its great potential, the use of AI in online Learning Materials also has challenges, such as the gap in technology access and the need for technical mastery by educators. In the context of social studies, this issue becomes more complex because the material often involves critical discussions that are difficult to replace with AI. As stated by Smith (2023), "the technological approach must be balanced with human values in learning

CONCLUSION

The phenomenological research highlights the importance of designing Learning Materials based on students' subjective experiences. Effective approaches such as narrative, dialogical, visualization, reflective, experiential, and technology-based methods have been identified as crucial for creating meaningful learning experiences. Developers of teaching materials should integrate these approaches to ensure that learning is relevant, personal, and inspiring. While each method offers unique advantages, it is essential to consider their limitations and carefully select the most appropriate combination to support balanced and critical learning. This ensures that technology serves as a tool to enhance, rather than replace, the human values in education.

REFERENCE

- Agustin, N. (2023). Penggunaan metode berbasis kasus dalam e-learning pada mata kuliah konsep dasar IPS untuk menanamkan nilai sosial-budaya dan spiritual di STAI Al-Azhar Menganti Gresik. *JTIEE (Journal of Teaching in Elementary Education)*, 7(2): 77–90.
<https://doi.org/10.30587/jtiee.v7i2.7007>

- Aminah, S. (2024). Pengembangan materi pembelajaran IPS untuk kelas awal dan lanjutan. *Indonesian Research Journal in Education*. Retrieved from [\[https://irje.org\]](https://irje.org)(<https://irje.org>)
- Anderson, L. W., et al. (2001). A taxonomy for learning, teaching, and assessing. New York: Pre Press Company Inc.
- Arsyad, A. (2016). Media pembelajaran (Edisi Revisi). Jakarta: PT Rajagrafindo Persada.
- Baharuddin, & Wahyuni, E. N. (2010). Teori belajar dan pembelajaran. Yogyakarta: Ar-Ruzz Media.
- Budi, B.N. (2012). Pengembangan metode pembelajaran online berbasis e-learning (Studi kasus mata kuliah bahasa pemrograman). *Jurnal Sains Terapan*, 2(1): 103–113.
[\[https://repository.ipb.ac.id/handle/123456789/66435\]](https://repository.ipb.ac.id/handle/123456789/66435)(<https://repository.ipb.ac.id/handle/123456789/66435>)
- Burgos, D., & Specht, M. (2006). Adaptive e-learning methods and IMS learning design: An integrated approach. Proceedings of the Sixth International Conference on Advanced Learning Technologies (pp. xx–xx). Kerkrate, The Netherlands: IEEE.
- Cahyadi, A. (2018). Pengembangan media dan sumber belajar: Teori dan prosedur. Serang: Penerbit Laksita Indonesia.
- Firmansah, M.L.H. (2023). Pengembangan modul ajar dengan model problem based learning berbasis masalah pada mata kuliah konsep dasar IPS. *JTIEE (Journal of Teaching in Elementary Education)*, 7(2): 108–115.
[\[https://doi.org/10.30587/jtiee.v7i2.7090\]](https://doi.org/10.30587/jtiee.v7i2.7090)(<https://doi.org/10.30587/jtiee.v7i2.7090>)
- Firmansah, M.L.H. (2022). Curriculum development and message design in e-learning based contextual using animation for determinant matrix course: Curriculum development and design in e-learning. *International Journal of Curriculum and Instruction*, 14(3): 1813–1830.
- Firmansah, M.L.H. (2022). Visualization and message design concepts of presenting statistical data through videos to improve understanding. *International Journal of Multidisciplinary Sciences and Arts*, 1(1): 1–6.
[\[https://doi.org/10.47709/ijmdsa.v1i1.1463\]](https://doi.org/10.47709/ijmdsa.v1i1.1463)(<https://doi.org/10.47709/ijmdsa.v1i1.1463>)
- Firmansah, M.L.H. (2022). Message design animation in e-learning to stimulate students to design messages using technology. *International Journal of Educational Research and Social Sciences (IJERSC)*, 3(2).
[\[https://doi.org/10.51601/ijersc.v3i2.353\]](https://doi.org/10.51601/ijersc.v3i2.353)(<https://doi.org/10.51601/ijersc.v3i2.353>)
- Firmansah, M.L.H. (2022). Desain pembelajaran kooperatif dalam e-learning pada program studi pendidikan guru sekolah dasar. *Jurnal Basicedu*, 6(1).
[\[https://doi.org/10.31004/basicedu.v6i1.2052\]](https://doi.org/10.31004/basicedu.v6i1.2052)(<https://doi.org/10.31004/basicedu.v6i1.2052>)
- Gherardini, M., & Frima, A. (2019). Pengembangan bahan ajar konsep dasar IPS berbasis karakter untuk mahasiswa PGSD. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 2(2): 1–10.
[\[https://doi.org/10.31539/joes.v2i2.950\]](https://doi.org/10.31539/joes.v2i2.950)(<https://doi.org/10.31539/joes.v2i2.950>)
- Hidayah, N. (2024). Pengembangan bahan ajar mata kuliah konsep dasar IPS SD bagi mahasiswa PGSD. *Jurnal Review Pendidikan dan Pengajaran*, 7(1). Retrieved from [\[https://journal.universitaspahlawan.ac.id\]](https://journal.universitaspahlawan.ac.id)(<https://journal.universitaspahlawan.ac.id>)
- Maulana, R. (2024). Pengembangan bahan ajar berbasis digital pada materi IPS. *Jurnal Riset Inovasi Pembelajaran*. Retrieved from [\[https://etdci.org\]](https://etdci.org)(<https://etdci.org>)
- Purnama, I. C. (2024). Pengembangan bahan ajar IPS karakteristik geografis Indonesia menggunakan flipbook untuk siswa kelas V sekolah dasar. Skripsi. Program Studi Pendidikan Guru Sekolah Dasar, Universitas Negeri Yogyakarta. Retrieved from <https://eprints.uny.ac.id>

Nurul Agustin, and Muhammad Lukman Haris Firmansah, *Identification of Methods in Developing Basic Social Studies Learning Materials Based on Culture in the Midst of the Issue of Artificial Intelligence Development*

Sari, D.P., & Sumarni, N. (2022). Analisis kebutuhan bahan ajar konsep dasar IPS bermuatan kearifan lokal di jurusan PGSD Universitas Musamus. **Jurnal Basicedu**, 6(1): 1–10.

<https://doi.org/10.31004/basicedu.v6i1.4320>

Sujana, I.M. (2024). Bahan ajar digital konsep dasar IPS materi kegiatan ekonomi. **Jurnal Media dan Teknologi Pendidikan**, 4(1): 69–79. Retrieved from

<https://ejournal.undiksha.ac.id>

Supriadi. (2015). Pemanfaatan sumber belajar dalam proses pembelajaran. **Lantanida Journal**, 3(2): 128–138. <http://dx.doi.org/10.22373/lj.v3i2.1654>

Wicaksono, H., Mustaji, & Danu, R. (2019). Pengembangan media e-learning dengan pemanfaatan aplikasi Moodle sebagai bahan ajar siswa kelas X SMK Kristen Petra Surabaya. **Jurnal Education and Development**, 7(2): 151–158.

<https://doi.org/10.37081/ed.v7i2.912>