Analysis of the need for digital history teaching materials for the merdeka curriculum in senior high schools

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ABSTRACT

Changing from the 2013 curriculum to a Merdeka curriculum means that learning tools, including teaching materials, must be adjusted to appropriate learning outcomes and objectives of history subject. This research aims to determine the need for media, content, and language teaching materials. This research uses a qualitative study with a descriptive approach. Primary data sources were obtained from informants, namely Malang teachers and high school students, and observations in the field. The stages of data analysis are data reduction, data display, conclusion, and verification. The results show that the need for digital history teaching materials in terms of media, namely: availability of wifi in schools and student internet quota, preferred font types are Calibri and Arial, preferred colors are bright colors, all students have smartphones with medium-high specifications, and videos and images in teaching materials must be explicit. There is a need for teaching materials in terms of content. Namely, the curriculum used is the Merdeka curriculum. Students prefer independent study, and some questions stimulate students to think historically. There is a need for teaching materials in terms of language. Namely, the language used as an introduction is Indonesian, and the language used must be easy for students to understand.

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Introduction

Currently, all levels of formal education, PAUD, SD, SMP, SMA, and Higher Education can implement Merdeka Belajar in stages. The difference is that PAUD to SMA/equivalent levels apply Merdeka Belajar-Merdeka Curriculum while universities implement Merdeka Belajar-Kampus Merdeka. The Merdeka Curriculum is one of the curriculum options implemented at the educational level where the intracurricular learning is varied, and the content will be more optimal so that students have enough time to explore concepts and strengthen competencies (Direktorat Sekolah Dasar, n.d.; Mala, Priyanto, & Iskandar, 2020). The Merdeka curriculum is implemented in senior high schools based on readiness which is divided into independent learning, independent change, and independent sharing (Badan Standar Kurikulum dan Asesmen Pendidikan, 2023). The structure of the high school curriculum consists of 2 (two) phases, namely: a. Phase E for class X and Phase F for class XI and class XII (Menteri Pendidikan Kebudayaan Riset dan Teknologi Republik Indonesia, 2022).
History subject is very important to teach in senior high school. Historical subject contains the values of heroism, exemplary, pioneering, patriotism, nationalism, and the spirit of never giving up which underlies the process of forming the character and personality of students, contains treasures regarding the civilization of nations, including the civilization of the Indonesian nation, is full of moral teachings and wisdom, instill and develop a responsible attitude in maintaining environmental balance and sustainability (Amelia, 2014; Sayono, 2015). History material taught in high school is in Phase E and Phase F. Phase E History has 2 general learning outcomes (CP), namely: (1) At the end of Phase E, students can understand the basic concepts of human, space, time, diachronic (chronology), synchrony, historical use, history and social theory, historical research methods, and local history. Through literacy, discussions, direct visits to historical places, and collaborative project-based research, students can analyze and evaluate various historical events that occurred in Indonesia, including the concept of ancestral origins and spice routes in Indonesia, Hindu-Buddhist kingdoms, and Islamic kingdoms. In Indonesia and (2) At the end of Phase E, students can use primary or secondary sources to conduct local historical research that has a common thread with Indonesianess either directly or indirectly, diachronically and/or synchronously and then communicate it in oral, written, and/or other media. Apart from that, they can also use various historical skills to explain historical events and interpret the values contained therein (Badan Standar Kurikulum dan Asesmen Pendidikan, 2022).

Phase F History has 3 general learning outcomes (CP), namely: (1) In Phase F, students in Classes XI and XII are able to develop basic historical concepts to study historical events in local, national and global trajectories. Through literacy, discussions, direct visits to historical places, and collaborative project-based research, students are able to analyze and evaluate various historical events that occurred in Indonesia which can be linked or linked to various other events that occurred in the world in the same period including Colonialism and Resistance. Indonesian Nation, Indonesian National Movement, Japanese Occupation in Indonesia, Proclamation of Indonesian Independence, Struggle to Maintain Independence, Liberal Democracy and Guided Democracy Government, New Order Government, and Reform Government, (2) Students in Class XI are able to use primary sources and/or secondary to conduct historical research diachronically and/or synchronically and then communicate it in oral, written and/or other media. Apart from that, they are also able to use historical skills to explain, analyze and evaluate historical events, as well as interpret the values contained therein, and (3) Students in Class XII are able to use primary and secondary sources to conduct historical research synchronously and / or diachronically then communicate it in oral, written and/or other media. Apart from that, they are also able to use historical skills to explain, analyze and evaluate historical events from various perspectives and actualize their interests in history through further studies or historical activities outside of school. (Ayundasari, 2022; Badan Standar Kurikulum dan Asesmen Pendidikan, 2022).

The demands for achieving history learning are very complex. For this reason, teachers need to innovate teaching materials that make it easier for students to understand the material (Iskandar, Syafei, Bahatmaka, Hidayat, & Huda, 2023). Currently, technological developments have shifted from analog or paperless to digital. Many teaching materials are completely digital. Digital teaching materials have the benefit of improving historical thinking skills (Saputro, 2022), chronological thinking skills (Putri, Zafri, & Ofianto, 2019), historical empathy (Susanto & Purwanta, 2022), learning motivation (Marsudi, Hudiyanto, & Sulistyow, 2023; Sari, 2018), learning outcomes (Alfianti, Suprapti, & Andayani, 2019; Ramadhani, 2023), fostering historical awareness (Hanifah, 2022), critical thinking skills (Kaviza, 2019), creative thinking skills, and learning independence of students (Fauzi, Syafrudin, & Mardasari, 2022; Irwandi, Sayono, & Hudiyanto, 2021).

The selection of teaching materials is adjusted to the student's learning style and learning speed. Students' learning styles vary; some like listening and looking at objects. Reading and writing, some like to practice. As a facilitator, the teacher must be able to accommodate all students' learning styles. The impact of this problem, if it still needs to be resolved, is that learning outcomes will not be achieved. Students learning abilities vary; some can understand quickly, on average, and others tend to be slow Therefore, teachers must prepare various teaching materials, not only packaged textbooks but also modules, handouts, worksheets, audio videos, and interactive multimedia (Indragani, Astika, & Tantri, 2021; Rustamana, Mutiara, Aprilia, Aini, & Yuda, 2023).

Student characteristics influence the achievement of history learning outcomes. High school students have different characteristics from elementary, middle school, or college students. The average age of high school students is 15-19 years (Cahyo, Wigati, & Shaluhiyah, 2012; Fuadah, 2011). The characteristics of high school students (neuroticism, extraversion, openness, friendliness, and conscientiousness) are sufficient and in the high category (Sitanggang & Saragih, 2013). High school students are searching for identity, still confused about what is happening to them, and they are still anxious about the physical and psychological changes within themselves. High school students begin to gain behavioral maturity, learn to regulate impulsivity, and make initial judgments about career goals to be achieved during middle adolescence. The thinking ability of high school students begins to learn throughout life, thinking about all possibilities, thinking scientifically, and being able to combine

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thoughts to reach logical conclusions (Suryana, Hasdikurniati, Harmayanti, & Harto, 2022). Based on the problems above, this research aims to determine the need for senior high school Merdeka curriculum history teaching materials. The novelty of this research is that there has been no research regarding the analysis of the need for history learning materials in the merdeka curriculum since its launch on February 11, 2022 (Direktorat Sekolah Dasar, 2022).

**Method**

This research uses qualitative research. Of the type of research used, the research approach chosen by the researcher is descriptive. A descriptive approach is used based on the consideration that the problems to be researched are currently ongoing to analyze phenomena that occur in the field. The data source in this research was obtained from primary data sources. Primary data sources were obtained from informants, namely Malang teachers and high school students, and observations in the field. Researchers used three techniques to get data in the field: documentation, observation, and interviewing. Data analysis in this research refers to the qualitative analysis stated by Miles and Huberman. The stages used in conducting data analysis are data collection, data reduction, data display, and conclusion (Miles & Huberman, 2005).

![Research Flow](image)

**Results and Discussions**

**Teaching Materials Viewed from the Media Aspect**

The teaching materials developed must be adapted to the needs of the users and students. From the media aspect, several indicators must be considered: preferred font types, colors, images, audio, video, animation, smartphone specifications, digital teaching materials, and internet availability. The preferred font types are Calibri and Arial. Calibri and Arial are examples of sans-serif fonts. Sans serif is very suitable for reading on a screen, while serif (Times New Roman) is suitable for printed teaching materials (Chan, Linnell, Trac, Drzewiecki, & Ottmar, 2023). Sans serif fonts are more inclusive because those can be read and liked by ordinary people and dyslexics (Rello & Baeza-Yates, 2016).

![Font of Calibri, Arial and Times New Roman](image)

Teaching materials should also pay attention to color. Everyone likes different colors, including high school students. High school students like bright colors like white, blue, and green. Colors can be divided into bright colors and dark colors. More brilliant and more colorful colors are rated as more pleasing; darker and more colorful colors are considered more exciting; and darker and more saturated colors are considered more dominant (Jonauskaite, Althaus, Dael, Dan-Glauer, & Mohr, 2018). The association between color and emotional dimensions holds; for example, light colors are rated more positively than dark colors. The music itself has been cross-linked with color. Music with a faster tempo and in a significant mode (rated as “happy” music) is adapted to more saturated, brighter, and yellower colors compared to music with a slower tempo and minor mode (graded as “sad” music), which adjusted for fewer saturated, darker, and blue colors from a sample of 37 colors (Jonauskaite et al., 2018).

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Figure 3 <37 Colors>

Smartphone specifications influence digital teaching materials. Based on interviews, most students have smartphones with at least 4 GB RAM specifications. The available RAM capacity will significantly affect the performance of the smartphone; the higher the available RAM, the safer the smartphone will be (Eraspace, 2020). The Senior high schools have wifi, and students have an internet quota. To access and download teaching materials, you need the internet. However, the speed of accessing and downloading teaching materials varies depending on the network (weak or strong) and the signal (2G-5G) (Bakti, 2018; Oktari, 2021). With wifi and the internet quota, students can access and download teaching materials anytime and anywhere. Images and videos must be clear. Unclear images and videos make it difficult for students to understand them (Hudiyanto, 2015; Mahardani, Hunaifi, & Mujiwati, 2023; Mbela, Bela, & Bhoke, 2021). Pixels affect the quality of images and videos (Hafidzah, 2022). The smaller the pixels, the more fragmented the images and videos.

Teaching Materials Viewed from the Content Aspect

The interview results show that the curriculum used is currently the independent curriculum. The independent curriculum is an option to overcome the learning crisis exacerbated by the spread of COVID-19, which will be implemented starting in 2022 for the senior high school level (Pengelola Web Kemdikbud, 2022). In this curriculum, teachers believe that the historical competency that students should be able to master is the ability to think historically. Historical thinking skills are attitudes, knowledge, skills regarding historical events, and the ability to think deeply. History allows students to criticize past events linked to current issues or problems (Nisa, Shavab, & Jayusman, 2020).

According to the teacher, suitable material to teach is the forced cultivation system, Hindu-Buddhism, ethical politics, colonialism, and movement organizations (NU and Muhammadiyah). Historical thinking skills are applied in phase F of the Historical Process Skills element, taught in classes XI and XII. The scope of material in class XI and family, school history, history of the spice route in the region, history of kingdoms in the region, etc.; collect primary and secondary sources through the surrounding environment, libraries and the internet; selecting and criticizing primary and secondary sources; interpreting to describe the meaning behind primary and/or secondary sources; and writing research results in historiographic form, (2) Explanation of historical events diachronically (chronologically) which focuses on process and/or synchronically which focuses on structure; Explanation of historical events based on causal relationships; Relate historical events to everyday life; and placing historical events in the context of their time, (3) Explanation of historical events from the perspective of the past, present and future; Explanation of historical events from patterns of development, change, continuity and recurrence, (4) Explanation of historical events in local, national and global scope; Linking the relationship between local, national and global historical events, and (5) Understanding the values of historical events and contextualizing them in today's life (Badan Standar Kurikulum dan Asesmen Pendidikan, 2022).

According to students, they prefer to study independently rather than in groups. The teaching materials prepared for independent study differ from those for group study. The most appropriate teaching materials for independent learning are modules. A module is a series of learning activities consisting of materials, methods, student activity sheets, worksheets, test question sheets, and critical test sheets to achieve learning objectives without teacher guidance. (Dirto, 2021).

Teaching materials must be able to train students in historical thinking skills. To train historical thinking skills, the content must vary, not only text but also videos, animations, images, and sounds from primary and secondary sources as learning resources. Historical questions can solve problems related to specific events.
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(Widiadi, Saputra, & Handoyo, 2022). Diversity of content can enable learning goals to be achieved effectively and efficiently (Andayani, Irafahmi, & Sulastri, 2012).

Teaching Materials Viewed from the Language Aspect
The teacher believes that the language used in teaching materials is Indonesian. Indonesian is the official language for school instruction in learning activities (Pemerintah Indonesia, 2009). This also includes those used in teaching materials as student learning resources. However, English can be used as the language used in teaching materials. Using English as the language of instruction for teaching materials can improve communication skills, which are needed in the 21st century. Teachers believe that the language used should be easy to understand. Teaching materials must be easy to understand to achieve learning objectives effectively and efficiently. For this reason, the language used must be appropriate to the characteristics of high school students. Apart from that, the choice of diction must pay attention to politeness (Handayani, Mubarak, & Purba, 2020).

Conclusions
This research concludes that the need for teaching materials can be divided into three aspects: media, content, and language. The need for teaching materials in terms of media for history learning, namely: availability of wifi at school and student internet quota, preferred font types are Calibri and Arial, preferred colors are bright colors, all students have smartphones with medium-high specifications, and videos and images in teaching materials must be explicit. There is a need for teaching materials in terms of content, namely: the curriculum used is merdeka, students prefer independent study, and there are questions that stimulate students to think historically. There is a need for teaching materials in terms of language. Namely, the language used as an introduction is bahasa, and the language used must be easy for students to understand.

Conflicts of Interest Statement
The authors certify that they have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers’ bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

References

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