

A CONTENT ANALYSIS OF DIGITAL REPRESENTATION IN INDONESIAN SENIOR HIGH SCHOOL ENGLISH TEXTBOOKS

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Received: May 2026; Revised: May 2026; Accepted: June 2026

ABSTRACT

This study examines how digital representations are incorporated into the English textbook for senior high school students in Indonesia titled *Life Today* (2022), published by the Ministry of Education, Culture, Research, and Technology. Given rapid technological advancements, English language curricula should reflect how digital technologies are integrated into learning and support the development of students' digital literacy. It remains unclear how much digital content is covered in the book. This study employs qualitative content analysis of the book's 24 sections, highlighting three main aspects: digital devices, digital activities, and digital culture. Findings indicate the presence of digital elements, though they are not evenly distributed across all chapters and sections. Digital activities appear with increasing frequency, while digital devices and cultural elements are not always presented consistently. Furthermore, digital elements mostly appear through tasks requiring responses, which tend to hinder students' active participation. The absence of interactive digital features indicates that the textbook emphasizes conceptual understanding over engaging students in digital activities. These results underscore the need for a more structured and balanced approach to integrating digital practices into the curriculum, so that students can improve their digital literacy more effectively.

Keywords: content analysis; digital literacy; digital representation; ELT textbook; textbook analysis

ABSTRAK

Penelitian ini meneliti cara tema digital dimasukkan dalam buku pelajaran Bahasa Inggris untuk siswa SMA di Indonesia yang berjudul *Life Today* (2022), diterbitkan oleh Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi. Seiring dengan pesatnya perkembangan teknologi, kurikulum pembelajaran bahasa Inggris diharapkan dapat mencerminkan integrasi teknologi digital dalam proses pembelajaran serta mendukung pengembangan literasi digital siswa. Masih belum diketahui berapa banyak materi digital yang tercakup dalam buku tersebut. Penelitian ini memakai analisis isi kualitatif terhadap 24 bagian buku, menyoroti tiga aspek utama: perangkat digital, aktivitas digital, dan budaya digital. Temuan menunjukkan keberadaan elemen digital, namun tidak terdistribusi secara merata di seluruh bab dan seksi. Aktivitas digital semakin sering muncul, sementara perangkat digital dan elemen budaya tidak selalu disajikan secara konsisten. Lebih lanjut, elemen digital kebanyakan muncul lewat tugas yang memerlukan respons, yang cenderung menyulitkan partisipasi aktif siswa. Ketidakhadiran fitur digital interaktif menandakan bahwa buku lebih menekankan pemahaman konseptual dibandingkan melibatkan siswa dalam kegiatan digital. Hasil ini menandakan perlunya pendekatan yang lebih terstruktur dan seimbang dalam mengintegrasikan praktik digital ke dalam kurikulum, agar siswa dapat meningkatkan literasi digital mereka dengan lebih optimal.

Kata Kunci: analisis isi; literasi digital; epresentasi digital; buku teks ELT; analisis buku teks

How to Cite:

Rahman, F., & Wahyuni, D. S. (2026). A Content Analysis of Digital Representation in Indonesian Senior High School English Textbooks. *IJEE (Indonesian Journal of English Education)*, 13(1), 93-104. <https://doi.org/10.15408/ijee.v13i1.51590>

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IJEE (Indonesian Journal of English Education), 13 (1), 2026

P-ISSN: 2356-1777, E-ISSN: 2443-0390 | DOI: <https://doi.org/10.15408/ijee.v13i1.51590>

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INTRODUCTION

Digital technology has become a central part of daily life, transforming the way people communicate, access news, learn, and interact with society. In educational settings, including schools, these changes have reshaped expectations regarding students' competencies and learning methods. In addition to mastering academic subjects, students are now expected to be able to use digital devices efficiently and to think critically about information found online (Falloon, 2020; Ng, 2021). In the context of English Language Teaching (ELT), digital literacy is crucial because English serves as the primary language in global digital communication, such as websites, social media, online services, and digital information exchange (Godwin-Jones, 2021). Consequently, expectations for English language learning increasingly emphasize the ability to communicate in real-world situations closely tied to the digital environment.

Over time, the importance of digital literacy has continued to grow, leading many schools to incorporate digital competencies into their curricula and teaching strategies. In Indonesia, the Merdeka Curriculum has been implemented with an emphasis on developing 21st-century competencies, including communication, collaboration, critical thinking, creativity, and the optimal use of digital tools, as outlined by the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) in 2022. This policy emphasizes that instructional materials must support students in participating in digital activities and adapting to today's technological environment. Nevertheless, textbooks remain a crucial learning tool because they determine the content studied, the types of classroom activities, and how students perceive the world around them (Tomlinson, 2013). Textbooks not only present language lessons and practice exercises but also reflect cultural values, social norms, and modern issues relevant to students' daily lives (Widodo, 2018). Therefore, incorporating digital elements into textbooks is crucial, as it can influence how students understand and interact with technology in the school environment.

Recent studies on English language teaching materials have examined in greater detail how textbooks portray culture, identity, ideology, and global issues in the learning process (Setyono & Widodo, 2019; Rashidi & Safari, 2021). Other research indicates that integrating digital skills into language learning is crucial. Kohnke and Moorhouse (2021) argue that teaching materials should help students hone their ability to communicate effectively and develop their skills in using digital tools. Hafner et al. (2022) emphasize that digital literacy in language learning is not merely about access to technology but about meaningful engagement with digital tools. Pangrazio and colleagues (2020) also note that teaching methods and the application of digital skills in schools influence students' development of the ability to use digital tools efficiently. These findings suggest that digital features in learning resources need to be systematically designed and organized to deepen students' conceptual understanding and provide them with hands-on experience with technology.

Hall's (1997) theory of representation provides a useful perspective for understanding how meaning is constructed through language, symbols, and social contexts. From this perspective, textbooks are not merely instructional materials but also cultural texts that actively shape understandings of the digital world rather than simply reflecting technological reality. This perspective is further supported by studies on digital literacy, media literacy, and digital participation, which collectively highlight three interrelated dimensions of digital practice: access to technology, the use of digital tools, and the sociocultural practices associated with digital environments (Van Dijk, 2020; Warschauer & Matuchniak, 2010; Livingstone, 2004; Pangrazio et al., 2020; Selwyn, 2016).

Drawing on Hall's theory of representation together with perspectives on digital literacy, media literacy, and digital participation, digital representations in English language teaching textbooks can be examined through three complementary analytical categories: digital devices, digital activities, and digital culture. Digital devices refer to the technological tools described in the textbook; digital activities refer to learning tasks involving interaction with digital technologies; and digital culture refers to patterns of communication and social practices associated with digital

environments. Together, these categories provide a conceptual lens for examining not only what digital elements are represented but also how these representations construct meaning and position learners within digital learning contexts.

Although these studies highlight the importance of digital literacy in language education, previous research has primarily focused on online learning, technology integration in classroom practice, and teachers' competencies in using digital tools (Moorhouse & Wong, 2022; Trust et al., 2023). While these studies provide valuable insights into the educational use of digital technology, they give comparatively less attention to how digital content is represented in English language teaching textbooks, particularly through learning tasks. Furthermore, most research on English textbooks in Indonesia focuses on curriculum alignment, the quality of teaching methods, and learning objectives, without extensively examining the presentation of digital elements and their distribution across various language skills. Consequently, knowledge regarding how digital tools, digital activities, and digital culture are depicted in English language teaching textbooks remains limited, particularly in the context of listening, speaking, reading, watching, writing, and presentation activities.

This issue is significant because the way digital content is presented in textbooks can influence students' interactions with digital tools during the learning process. Spante et al. (2021) state that digital competence encompasses knowledge of digital concepts as well as opportunities for meaningful interaction with digital tools and environments. If digital elements appear only as a background or through passive exposure, students may not have sufficient opportunities to participate actively and interact meaningfully. Examining the structure and distribution of digital content in textbooks can provide insight into the extent to which such material supports the development of students' digital literacy.

In Indonesia, this issue has become increasingly important because textbooks developed in accordance with the Merdeka Curriculum are designed to reflect current educational priorities, including the integration of digital literacy. Recent studies indicate that English textbooks in this curriculum predominantly adopt a communicative and student-centered approach (Wahyudin et al., 2023). Nevertheless, few studies have specifically examined how digital components are systematically incorporated into textbooks and learning tasks.

Therefore, further research is needed to understand how digital representations are incorporated into English language teaching materials. This study examines how digital elements are presented in the senior high school English textbook titled *Life Today* (2022), published by the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia. This book was selected because it serves as the official instructional material for the implementation of the Merdeka Curriculum. The research objectives include: (1) identifying sections that feature digital representations within the book, and (2) analyzing how these digital representations are applied to various learning components, such as listening, speaking, reading, viewing, writing, and presenting.

This study aims to contribute to the discussion on digital literacy and English teaching materials by evaluating the integration of digital features in language learning media, based on observations of texts and activities. In practical terms, the results can serve as a guide for teachers, book publishers, and curriculum designers in optimizing the use of digital methods in English learning resources.

METHODS

Research design

This study employs a qualitative method using content analysis to examine how digital representations are presented in English Language Teaching (ELT) textbooks. The qualitative method was chosen because the research purpose was not to test a theory or prove a causal

relationship, but rather to observe and understand the digital representations in the learning materials. Content analysis was chosen because it provides transparent, objective, and reproducible procedures for examining textual data. This approach allows the researcher to identify, categorize, and interpret patterns of digital presentation using structured analytical procedures.

Research site and participants

This study was conducted within the context of an English language textbook at the senior high school level in Indonesia, particularly in conjunction with the implementation of the Merdeka Curriculum. The data used were drawn from a 12th-grade English textbook titled *Life Today* (2022), published by the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia. As this is a document-based study, the research did not involve human subjects. The primary focus was on the textbook as the object of study. The units of analysis were determined based on the learning segments listed in the Scope and Sequence of the book, including listening, speaking, reading, viewing, writing, and presenting. A total of 24 segments were analyzed. Each segment was selected as a unit of study because it presents a complete series of teaching activities and provides a clear framework for the inclusion and presentation of digital elements.

Data collection and analysis

Data collection was conducted through document analysis of the English textbook "Life Today" following Bowen's (2009) framework, which defines document analysis as a systematic procedure for reviewing and interpreting textual data. The textbook was first examined to understand its structure, after which learning elements listed in the Scope and Sequence were identified, resulting in 24 units of analysis covering listening, speaking, reading, viewing, writing, and presenting activities. This study employed a deductive qualitative content analysis, in which analytical categories were predetermined based on theory rather than derived from the data. A deductive approach was considered appropriate because the purpose of the study was to examine how digital representations in the textbook could be interpreted using predefined analytical categories derived from Hall's (1997) theory of representation and supporting literature on digital literacy and digital engagement, rather than to develop new categories from the data (Van Dijk, 2020; Livingstone, 2004; Pangrazio et al., 2020; Selwyn, 2016; Warschauer & Matuchniak, 2010). Hall's concept was operationalized into three analytical categories: digital devices, digital activities, and digital culture.

Digital devices refer to technological tools and infrastructures represented in the textbook, such as smartphones, computers, platforms, podcasts, videos, QR codes, and websites. Digital activities include learning tasks that involve interaction with digital technologies, such as watching videos, listening to podcasts, and searching for information. Digital culture refers to social and communicative practices in digital environments, including social media interaction, online communication, digital payments, and digital etiquette. Each learning unit was coded into these categories, with some segments assigned multiple codes where applicable. All coding was recorded in a coding sheet containing chapter, page range, learning unit, description, and assigned codes, with examples such as podcast activities coded under both digital devices and digital activities, and social media discussions coded under digital culture.

The coded data were analyzed using Miles, Huberman, and Saldaña's (2014) interactive model, consisting of data condensation, data display, and conclusion drawing/verification. Data were first grouped into the three categories, then organized into tables and descriptive summaries to identify patterns, and finally interpreted through iterative comparison with the dataset to ensure consistency. To enhance reliability, the coding process was reviewed by the researcher's supervisor to confirm category accuracy and resolve ambiguities. The researcher remained the primary instrument in both data collection and analysis.

FINDINGS AND DISCUSSION

Findings

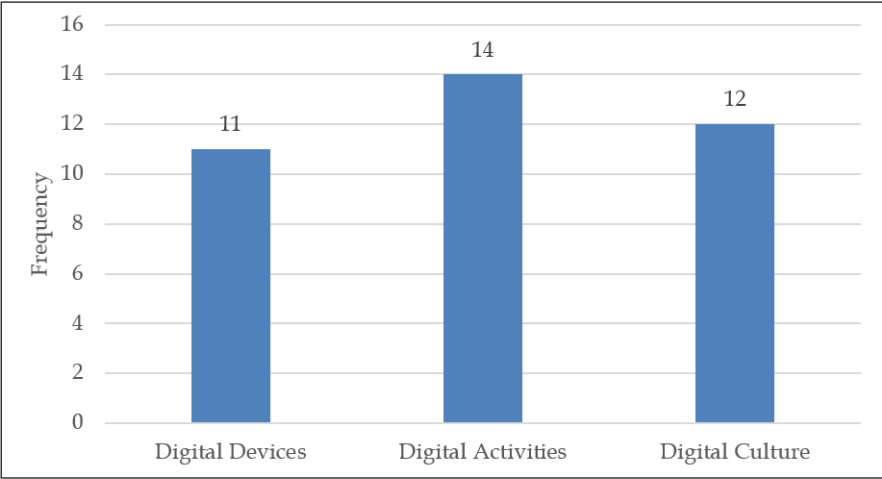
Elements of Digital Representation in the Textbook

The following section presents findings related to the first research question: the identification of various segments of digital representation in textbooks. The analysis examines three categories drawn from the digital literacy framework: tools used online, activities performed with those tools, and attitudes and mindsets in the digital environment. These three categories were used to assess how digital technology appears in 24 textbook segments. The findings indicate that digital representations are present throughout the material, but there is variation in their distribution, intensity of representation, and connection to content across chapters and language skills.

General Distribution of Digital Representation Elements

The analysis indicates that all three elements of digital representation are present in the textbook, though they do not appear with consistent frequency or placement. Digital activities are the most dominant component, followed by digital culture and digital devices.

Figure 1. General Distribution of Digital Representation Elements



According to Figure 1. From 24 segments, digital activities appeared in 14 (58.3%), making them the most frequently mentioned aspect. Digital culture was recorded in 12 (50%), while digital devices were recorded in 11 (45.8%). Although these percentages indicate the presence of digital elements in many sections of the textbook, the findings also show that these three elements do not always appear together in a single learning section. The emphasis on digital activities suggests that the textbook highlights digital-based learning experiences more than it explicitly focuses on technological understanding. Most activities categorized as digital involve students watching videos, listening to audio or podcasts, and responding to images and other visual content. These activities are primarily found in the listening and viewing sections, where technology serves as a medium for delivering language input, rather than as material studied directly.

Digital devices are typically implied through the types of media included, such as videos, audio recordings, materials accessible via QR codes, podcasts, and infographics. Textbooks rarely explain or describe the technological tools used; instead, technology is treated as part of the learning environment. This pattern indicates that digital tools are viewed as media supports, not as components that explicitly develop digital literacy skills. Meanwhile, digital culture emerges through topics closely related to students' current digital experiences, such as social media use, online shopping, digital communication, and online behavior. These topics mostly appear in reading and speaking tasks, where students are asked to explain, discuss, or respond to digital events.

However, these discussions often do not relate to actual digital practices, as students are not always required to use devices or online platforms while studying these topics.

Another important finding is that digital representations typically appear in fragments, rather than being presented as a complete whole. Some learning segments cover only one or two elements, without addressing digital devices, activities, and culture simultaneously. This fragmentation indicates that digital elements are selected selectively based on context, rather than being consistently or structurally integrated throughout the material. Overall, the research findings show that digital elements are indeed present in textbooks, but their use is inconsistent throughout the book. Textbooks place greater emphasis on introducing students to digital content and environments, while opportunities for students to engage directly in digital activities remain limited.

Distribution of Digital Representation Across Chapters

To better understand the structure of digital representation in textbooks, an in-depth analysis was conducted to examine the distribution of digital elements across the four chapters.

Table 1. General Distribution of Digital Representation by Chapter

Chapter	Sections	Devices	Activities	Culture
1	6	4 (66.7%)	4 (66.7%)	2 (33.3%)
2	6	4 (66.7%)	6 (100%)	6 (100%)
3	6	1 (16.7%)	2 (33.3%)	4 (66.7%)
4	6	2 (33.3%)	2 (33.3%)	0 (0%)

The analysis of each chapter revealed significant variations in the distribution of digital representation between chapters. These findings indicate that the use of digital features in textbooks is more influenced by the main ideas and specific learning materials in each chapter, rather than by consistent or structured implementation throughout the book.

Chapter 2 features the strongest digital representation. All six sections of the chapter cover digital activities and culture (100%), while digital devices are mentioned in four sections (66.7%). In this chapter, digital elements frequently appear together, particularly when discussing daily digital activities and how students communicate. The co-occurrence of digital activities and culture indicates a closer connection between the digital environment and student participation in the classroom compared to other sections of the discussion.

Chapter 1 exhibits a moderate level of digital representation. Digital devices and activities each appear in four segments (66.7%), while digital culture appears in only two segments (33.3%). Although digital elements appear to be present, their use does not always feel connected. Often, these elements appear in isolation, rather than as part of a broader framework to support learning. Consequently, overall integration feels uneven and not yet fully coordinated.

In Chapter 3, digital culture is the primary focus, appearing in four segments (66.7% of the content). In contrast, digital activities appear in only two segments (33.3%) and digital devices in just one segment (16.7%). This indicates that the chapter emphasizes discussions of digital life concepts rather than the practical use of technology. Students gain knowledge about digital issues, but are rarely given the opportunity to apply technology in their learning activities.

Chapter 4 exhibits the lowest level of digital representation among all chapters. Digital activities and devices each appear in only two segments (33.3%), while digital culture does not appear at all. This chapter is less connected to students' digital experiences and rarely utilizes digital contexts in language learning activities, unlike Chapter 2.

The distribution of content across chapters indicates that digital representation is not consistently structured or incorporated as a routine element in textbook design. The inclusion of digital elements appears to be more influenced by the relevance of the chapter's topic to current digital realities. Consequently, some chapters present richer, more comprehensive digital content, while others have little or inadequate digital content.

Analysis of Digital Representation Elements by Category

Digital Devices

11 of the 24 segments (45.8%) included digital devices. Most of these took the form of digital media, such as audio recordings, podcasts, videos, QR codes, and infographics. These devices are generally placed in areas where people listen or watch and serve as language input. The findings indicate that digital devices are rarely explicitly presented as technological tools that must be learned or operated with specific digital skills. Textbooks assume that students already know how to use the technologies discussed. As a result, digital devices mostly serve as invisible aids during learning activities, rather than being the focal point of digital literacy instruction.

Another clear pattern is that the use of digital devices is closely tied to activities that require language reception and comprehension. Students are often asked to access or view digital content, but are rarely given guidance on how to modify, create, or deeply reflect on the digital tools they use. Although some productive activities, such as delivering presentations or writing assignments, utilize technology, the instructions do not explicitly require the use of specific digital applications or websites. This pattern indicates that textbooks tend to view technology merely as a means of obtaining language input, rather than as an element that proactively supports the learning process. Therefore, although students utilize digital media, they do not receive structured instruction to develop the skills necessary for effective use or active participation.

Digital Activities

Digital activities are the most frequently occurring element, appearing in 14 segments, or 58.3% of the total. These activities encompass a variety of language competencies, including listening, watching, speaking, writing, and giving presentations. The findings indicate that textbooks attempt to incorporate digital activities at various stages of learning. However, most existing digital activities remain open-ended and can be influenced or responded to in specific ways. Most students engage in activities such as watching videos, listening to podcasts, reviewing images or videos, or responding to content related to technology or the internet. There are few opportunities to use digital devices productively, such as creating digital artifacts, collaborating online, or creating something that utilizes technology.

In some cases, activities labeled as "digital" do not actually require the direct use of technology. Instead, these activities merely discuss digital issues or use digital topics as the core of the lesson. This suggests that digital engagement is more often conceptualized than actually implemented. Another key point is the absence of concrete examples of individuals actively engaged in meaningful digital practices. Textbooks do not include activities involving real-time online conversations, collaboration in virtual spaces, the use of interactive websites, or general content sharing, all of which are essential for today's digital competencies. As a result, students function more as recipients of digital material rather than as active participants. Overall, although textbooks feature digital activities, nearly all of them serve to introduce content to students and help them understand it, rather than encouraging substantive engagement with technology.

Digital Culture

Digital culture appears in 12 segments, accounting for 50%, making it the second most common theme in textbooks. This aspect is primarily evident through topics related to students' daily use of digital tools, such as social media, online messaging, electronic payments, online

chat, and understanding digital security. Digital culture is typically integrated into reading and speaking tasks, where students are asked to process information, express opinions, and discuss current issues related to technology. In this context, digital representations serve as a bridge between language-learning materials and real-life social situations people experience.

Studies indicate that digital culture is frequently used to create a sense of relevance and familiarity in the learning process. Textbooks aim to situate English language learning within a contemporary social context through familiar digital themes. However, this integration remains largely conceptual, as discussions about digital life are rarely accompanied by the actual use of technology. Students are typically asked to consider or review digital topics, but are not always invited to participate in real digital activities related to those topics. Discussions about social media or online communication do not lead to actual online interactions, teamwork via digital platforms, or the production of real digital content.

This pattern indicates that digital culture in textbooks is treated more as representational material than as an actively engaged practice. Textbooks help students understand the digital world and modern communication, but offer limited opportunities for them to experience these things firsthand. Research findings indicate that the use of digital representation in textbooks focuses on familiarizing students with the digital environment, studying related issues, and providing access to digital resources. However, the inclusion of active, direct, and practical digital literacy remains rare and is often not optimally developed in instructional materials.

Presentation of Digital Representation in the Textbook

This section presents findings related to the second question: how digital representations are presented in the textbook. The analysis examines how digital devices, digital activities, and digital culture are integrated into various learning segments and their impact on student interaction with the digital environment. The study covers 24 learning segments and finds that digital representations primarily appear through activities focused on input and context. However, opportunities for direct digital experiences that enable active student participation remain limited.

Presentation through Types of Learning Sections

The findings reveal that the presentation of digital content varies across the learning process segments, including listening, viewing, reading, speaking, writing, and presenting. Each section demonstrates different ways of integrating these elements, reflecting variations in instructional objectives and levels of student engagement. In listening and viewing activities, digital representations most consistently appear through media-based inputs. These segments frequently utilize audio recordings, podcasts, videos, QR codes, and visual materials as primary learning tools. Although digital devices are mentioned in 11 sections (45.8%), their presence is rarely explicitly described, as the textbooks emphasize media content over the technology used. Students are mostly positioned as recipients of information through tasks involving listening, watching, and responding to digital content.

The research results indicate that in this context, technology primarily serves as a tool for language delivery. Students access and view digital content more frequently than they use technology directly to modify or produce it. Thus, the use of digital elements in the listening and viewing segments is largely related to information reception. This pattern confirms that digital devices are most effective when they help learners understand language meaningfully. In reading and speaking activities, digital representations are primarily showcased through the integration of themes and contexts. Digital culture is evident in these segments through topics directly related to students' daily interactions with technology, such as the use of social media, online communication, electronic transactions, and awareness of digital security practices. Students are not required to operate technology directly; rather, they are asked to understand information, share opinions, discuss issues, and reflect on the digital elements presented in the materials.

Research indicates that the use of digital materials in these fields serves primarily as a

backdrop that supports the language learning process. Technology is viewed as an element of modern social life, not as a practical learning tool. As a result, students are aware of digital issues but rarely have real opportunities to use digital devices or participate in digital activities. Meanwhile, writing and presentation activities show that students are more active in generating and disseminating their ideas. Occasionally, they are assigned tasks to write texts, organize their thoughts, and share information on digital topics. However, the integration of digital elements in this area is not always clear or systematic. Although digital activities are the most frequent overall (58.3%), productive activities do not always require the use of actual digital platforms or tools.

Technology-related instructions are often optional, not clearly defined, or poorly organized. Students can complete tasks through traditional methods without relying on digital methods, such as online writing collaboration, creating videos or other media, publishing on the internet, or communicating via digital platforms. Therefore, in practice, students do not make meaningful use of technology, even though many tasks involve digital devices. In general, the findings indicate that digital devices are used variably across sections of the learning material, depending on the teaching approach. Sections emphasizing input tend to involve technology more frequently, while sections emphasizing productivity offer fewer opportunities for significant digital engagement. This pattern indicates that textbooks place greater emphasis on presenting digital content and helping students understand the context, rather than encouraging them to actively practice using digital devices.

Patterns of Digital Representation

Upon further examination, several common patterns emerge in how digital representations are constructed throughout the textbooks. These patterns reflect how technology is integrated into the teaching process and how students are expected to interact with digital devices as part of their learning. The first major pattern is the dominance of implicit representations. Although digital devices are mentioned in nearly half of the subject areas studied (45.8%), they are not often explicitly described as technologies that students need to understand how to use or critically evaluate. Digital representations are incorporated indirectly through various media such as videos, audio files, podcasts, QR codes, and other visuals. Textbooks typically assume that students are already familiar with these technologies and do not provide explanations or guidance on how to use them.

This pattern indicates that technology is viewed as a routine element in the learning environment, rather than merely a specialized subject taught in digital literacy. As a result, students use digital media without receiving adequate guidance on how these devices work or the impact of technology on communication. The second pattern highlights that digital representations serve a dual role not only as tools, but also as contexts in which various things are understood and experienced. As a tool, technology mostly appears in listening and viewing activities, where digital media serves as a means of language input. As a context for digital representation, technology is more evident in reading and speaking activities, through discussions about social media, online communication, digital payments, and other aspects of life and interaction in the modern digital world.

However, the research findings reveal that these two roles are rarely combined in a single task. The use of technology does not always encourage reflection on how digital culture works, while discussions of digital issues typically do not involve the use of technology itself. This separation results in an inadequate presentation of digital information, with the real-world application and the concepts behind digital skills disconnected. The third pattern indicates that showing something to others is more common than giving them the opportunity to participate directly. Although digital activities are the most dominant at 58.3%, the majority of activities remain centered on receiving and understanding information. Students are mostly asked to look at, watch, listen to, or talk about digital materials, rather than to create, collaborate, share, or interact through digital tools.

The significance of this finding lies in the absence of activities involving genuine digital participation. There are no tasks requiring students to communicate online, collaborate in digital

spaces, produce digital projects using various media, or interact directly with others via digital tools. In other words, the digital content in textbooks consists mostly of symbols and examples, rather than real-world experiences or practices. Overall, the research findings indicate that digital representation is largely based on access, exposure, and conceptual understanding. Although digital topics and media are clearly presented in textbooks, opportunities for students to actively participate, engage, and think deeply about digital content remain very limited.

Presentation Based on Students' Level of Engagement

Digital representations can be analyzed by assessing the level of student participation that develops during the learning process. The findings identified three main patterns in student engagement with digital elements: passive engagement, semi-active engagement, and a lack of genuine participation. The most common pattern was passive engagement, particularly during listening and viewing activities. In this scenario, students primarily interact with digital media by absorbing and interpreting content from sources such as videos, podcasts, audio recordings, and visual aids. Although digital elements were present in 14 cases (58.3%), most tasks required only observation, listening, or comprehension-based responses. This observation indicates that technology primarily functions as a one-way channel. Students access digital content but do not actively operate digital tools, produce digital products, or participate in digital spaces.

Consequently, student interaction with technology tends to be passive and focused on receiving information. The next pattern is a semi-active approach, which is primarily evident in writing and presentation tasks. In these types of activities, students demonstrate higher levels of cognitive and productive engagement by writing texts, organizing ideas, and conveying information. However, the role of technology in these tasks is often unclear and inconsistent. Digital devices and activities are not always mandatory for productive work. In many situations, students can complete tasks traditionally without using software, collaborative platforms, or multimedia materials. Instructions involving technology are typically optional and less structured, resulting in indirect digital engagement that is not yet fully integrated into the learning framework. Another key finding is the lack of genuine digital participation.

Among the segments studied, none required students to actively engage in modern digital communication, such as online collaboration, interactive discussions, content creation in various formats, or interaction via platforms. Although elements of digital culture appeared in 12 segments (50%) and introduced students to current trends, these examples were mostly theoretical. Thus, this study highlights a clear gap between understanding the digital world and participatory practice within it. Students are motivated to recognize and discuss digital trends, yet they are not consistently positioned as primary actors in real technological environments. In conclusion, the depiction of digital representation in textbooks emphasizes exposition, understanding, and contextual awareness over actual digital participation. Students are portrayed more as recipients of digital information than as creators, collaborators, or analytical users of digital technology.

Discussion

This study reveals that digital elements in the *Life Today* textbook function as a meaning-making system aligned with the digital orientation of the Merdeka Curriculum. In line with Hall's (1997) theory of representation, these findings suggest that digital elements are not merely instructional resources but actively construct meanings about technology, learning, and participation in contemporary education. Through this process, the textbook normalizes digital tools as an integral part of English language learning, shaping how students understand technology within educational contexts. From a representational perspective, the textbook constructs the digital world as familiar, accessible, and embedded in everyday classroom practices. The recurring presence of digital references such as online communication, multimedia resources, and internet-based activities

reinforces the idea that digital environments are a natural component of learning. This reflects Hall's (1997) argument that representation does not simply reflect reality but produces meaning by shaping how reality is understood.

Representation in the textbook also positions learners within specific subject roles. Students are primarily constructed as recipients of digitally mediated knowledge who engage through activities such as watching, listening, reading, and responding. In contrast, opportunities to produce digital content, collaborate online, or engage in interactive digital practices remain limited. This indicates a constrained representation of learner agency, in which digital engagement is largely defined by consumption rather than production. These representational patterns further reflect underlying pedagogical assumptions embedded in the textbook. Digital literacy is framed as a competence developed through exposure to digital content and conceptual understanding, rather than through active participation in digital practices. This finding is broadly consistent with previous studies suggesting that digital literacy in English language learning extends beyond access to digital technologies to include meaningful engagement with digital tools and interactions (Hafner et al., 2022; Pangrazio et al., 2020). While students are introduced to topics such as online communication and digital tools, the limited presence of production-based tasks suggests an instructional orientation that prioritizes awareness over engagement, offering relatively few opportunities for creativity and collaborative digital learning.

Overall, the textbook operates as a representational space in which meanings of digitality are constructed, and learners are positioned within a particular pedagogical framework. Rather than simply illustrating technological use, it promotes a form of digital literacy centered on understanding and consuming digital content, with limited emphasis on creation and participation. This highlights the need for a more balanced representation of digital literacy that supports both conceptual understanding and active digital engagement.

CONCLUSIONS AND SUGGESTIONS

This study focuses on identifying elements of digital representation and examining their presence in English language textbooks for high school students in Indonesia. The findings indicate that digital representations emerge through the use of digital devices, online activities, and elements of digital culture; however, the integration of digital features is inconsistent and uneven across the curriculum. Typically, digital elements serve as supplements, with technology used more to convey information or contextual themes than to stimulate active participation. In general, the textbooks demonstrate an initial contextual orientation toward digital literacy, where students are more frequently exposed to digital content than provided with guidance on the effective use of technology.

This indicates that the implementation of digital practices has not been structured to foster sustained, practice-focused digital interactions. Based on these findings, it is recommended that educators transform textbook exercises into digital activities that place greater emphasis on practice. Textbook developers and curriculum designers need to clearly and consistently incorporate digital elements into all learning tasks. Further research is also needed to assess how these representations are implemented in classroom contexts and to evaluate similar patterns across various educational settings.

REFERENCES

- Bowen GA (2009), "Document Analysis as a Qualitative Research Method". *Qualitative Research Journal*, Vol. 9 No. 2 pp. 27–40, doi: <https://doi.org/10.3316/QRJ0902027>
- Darvin, R., & Hafner, C. A. (2022). Digital Literacies in TESOL: Mapping Out the Terrain. *TESOL Quarterly*, 56(3), 865–882. <https://www.jstor.org/stable/48688793>
- Erdin, Y. (2020). New Digital Technology in Education: Conceptualizing Professional Learning for Educators. *Journal of Foreign Language Education and Technology*. <https://doi.org/10.1007/978-3-319-05822-1>
- Falloon, G. From digital literacy to digital competence: the teacher digital competency (TDC) framework. *Education Tech Research Dev* 68, 2449–2472 (2020). <https://doi.org/10.1007/s11423-020-09767-4>
- Godwin-Jones, R. (2010). Emerging technologies. *Language Learning & Technology*, (14)2, 4–11. <https://doi.org/10.64152/10125/44208>

- Godwin-Jones, R. (2021). Emerging technologies: Artificial intelligence and language learning. *Language Learning & Technology*, 25(3), 5–11.
- Godwin-Jones, R. (2021). Evolving technologies for language learning. *Language Learning & Technology*, 25(3), 6–26. <http://hdl.handle.net/10125/73443>
- Hafner, C. A., Chik, A., & Jones, R. H. (2015). Digital literacies and language learning. *Language Learning & Technology*, 19(3), 1–7. Retrieved from <http://llt.msu.edu/issues/october2015/commentary.pdf>
- Hafner, C. A., Chik, A., & Jones, R. H. (2022). Digital literacies and language learning. In *The Routledge handbook of language learning and technology* (pp. 52–65). Routledge.
- Hall, S. (1997). El trabajo de la representación. *Representation: Cultural representations and signifying practices*, 1, 13–74.
- Huisman, Martijn. "van Dijk, J. (2020). The digital divide. Cambridge/Medford: Polity. 208 pp." *Communications*, vol. 46, no. 4, 2021, pp. 611–612. <https://doi.org/10.1515/commun-2020-0026>
- Jones, R.H., & Hafner, C.A. (2021). *Understanding Digital Literacies: A Practical Introduction* (2nd ed.). Routledge. <https://doi.org/10.4324/9781003177647>
- Kohnke, L., & Moorhouse, B. L. (2021). Facilitating synchronous online language learning through Zoom. *RELC Journal*, 52(2), 296–301.
- Livingstone, S. (2004). Media Literacy and the Challenge of New Information and Communication Technologies. *The Communication Review*, 7(1), 3–14. <https://doi.org/10.1080/10714420490280152>
- Miles, M. B. a., Huberman, A. M. a., & Saldaña, J. a. (201). *Qualitative data analysis a methods sourcebook*. Thousand Oaks, California SAGE Publications, Inc.
- Moorhouse, B.L., Wong, K.M. Blending asynchronous and synchronous digital technologies and instructional approaches to facilitate remote learning. *J. Comput. Educ.* 9, 51–70 (2022). <https://doi.org/10.1007/s40692-021-00195-8>
- Ng, W. (2021). *New digital technology in education: Conceptualizing professional learning for educators*. Springer.
- Pangrazio, L., Godhe, A., & Ledesma, A. G. L. (2020). What Is Digital Literacy? A Comparative Review of Publications across Three Language Contexts. *E-Learning and Digital Media*, 17, 442–459. <https://doi.org/10.1177/2042753020946291>
- Pendidikan, K., Kebudayaan, R., & Indonesia, T. R. (2022). *Panduan implementasi kurikulum merdeka*. Jakarta: Kemendikbudristek.
- Rashidi, N., & Safari, M. (2021). Culture and ideology in English language teaching textbooks. *International Journal of Language Studies*, 15(1), 55–72.
- Selwyn, N. (2016). *Education and Technology: Key Issues and Debates*. (2nd ed.) Bloomsbury Academic.
- Setyono, B., & Widodo, H. P. (2019). The representation of multicultural values in the Indonesian Ministry of Education and Culture-Endorsed EFL textbook: a critical discourse analysis. *Intercultural Education*, 30(4), 383–397. <https://doi.org/10.1080/14675986.2019.1548102>
- Severson, S. (2015). Brian Tomlinson, ed. *Developing Materials for Language Teaching*, Second Edition. London: Bloomsbury, 2013. 526 pp. eISBN: 978-1-4411-7687-5 *Materials for life and learning: A review of Developing materials for language teaching*. <https://doi.org/10.21747/16478770.6.1291>
- Spante, M., Hashemi, S. S., Lundin, M., & Algers, A. (2018). Digital competence and digital literacy in higher education research: Systematic review of concept use. *Cogent Education*, 5(1). <https://doi.org/10.1080/2331186X.2018.1519143>
- Tomlinson, B. (2013). *Developing Principled Frameworks for Materials Development*. In B. Tomlinson (Ed.), *Developing Materials for Language Teaching* (2nd ed., pp. 95–118). London: Bloomsbury.
- Trust, T., Whalen, J., & Mouza, C. (2023). Editorial: ChatGPT: Challenges, Opportunities, and Implications for Teacher Education. *Contemporary Issues in Technology and Teacher Education*, 23, 1–23.
- Van Dijk, J. (2020). *The Digital Divide*. Polity Press.
- Wahyudin, A. Y., Suherdi, D., & Kurniawan, E. (2023). English textbooks in the Merdeka Curriculum: A communicative and student-centered perspective. *Indonesian Journal of Applied Linguistics*, 13(1), 45–58.
- WARDLE, H. (1999). *Representation. Cultural representations and signifying practices*. EDITED BY STUART HALL. London, Thousand Oaks and New Delhi: Sage Publications in association with the Open University. 1997. 400 pp. Pb.:£12.95. ISBN 0 7619 5432 5. *Social Anthropology*, 7(2), 203–217. doi:10.1017/S0964028299310168
- Warschauer, M., & Matuchniak, T. (2010). New Technology and Digital Worlds: Analyzing Evidence of Equity in Access, Use, and Outcomes. *Review of Research in Education*, 34(1), 179–225. <https://doi.org/10.3102/0091732X09349791>
- Widodo, H.P. (2018). Language Policy in Practice: Reframing the English Language Curriculum in the Indonesian Secondary Education Sector. In: Kirkpatrick, R. (eds) *English Language Education Policy in Asia*. Language Policy, vol 11. Springer, Cham. https://doi.org/10.1007/978-3-319-22464-0_6
- Xiong, ., Feng, ., Hu, G. (2022). Researching Cultural Knowledge and Values in English Language Teaching Textbooks: Representation, Multimodality, and Stakeholders. In: Xiong, T., Feng, D., Hu, G. (eds) *Cultural Knowledge and Values in English Language Teaching Materials*. Springer, Singapore. https://doi.org/10.1007/978-981-19-1935-0_1