

Digital Teaching Materials Explanation Text Critical Thinking for Junior High School/Middle School

Sujali^{1*}, Yusida Gloriani², Dede Endang Mascita³

¹⁾ Universitas Swadaya Gunung Jati, Cirebon, Indonesia

Corresponding Author: sujaliaag@gmail.com

Article history: received July 17, 2024; revised July 28, 2024; accepted October 17, 2024

This article is licensed under a Creative Commons Attribution 4.0 International License



Abstract

The objective of this research is to develop digital teaching materials for explanatory texts designed for students in junior high school. The following issues represent the primary challenges associated with this research: (1) What is the optimal design of digital teaching materials for critical thinking explanatory texts for junior high school/MTs? (2) What are the outcomes of the implementation of digital teaching materials for critical thinking explanatory texts for junior high school/MTs? This research employs the research and development method (R&D) with the ADDIE model (analysis, design, development, implementation, evaluation). The research methodology comprises the following steps: analysis of needs, design of digital teaching materials for explanatory text, development of digital teaching materials for explanatory text, implementation of digital teaching materials for explanatory text, and evaluation of digital teaching materials for explanatory text. In this study, data were collected from the results of validation questionnaires completed by experts in learning models, media, and implementation in learning, as well as from the actual implementation of the learning model. The data were subjected to descriptive analysis using the Likert scale and paired sample t-test. The validation test conducted with material experts yielded a score of 3.5, while the test with media experts returned a score of 3.9. The validation test with Indonesian language teachers also produced a score of 3.9. The implementation of digital teaching materials for critical thinking explanatory texts for junior high school/MTs students prompted positive responses from the students, resulting in a score of 3.5. The findings of this study indicate that digital teaching materials for critical thinking explanations for junior high school/MTs students satisfy the criteria for feasibility in terms of their potential use as a learning model by teachers of Indonesian language subjects on explanatory text material for junior high school/MTs class VIII students.

Keywords: Digital Teaching Materials, Explanatory Text, Critical Thinking

I. INTRODUCTION

The advent of 21st-century learning represents a solution to the challenges inherent in the field of education, which is currently experiencing a rapid influx of information and technological advancements. 21st-century learning is a pedagogical approach designed to equip the 21st-century generation with the skills and knowledge required to navigate the complexities of the modern age. The advancement of 21st-century learning design enables educators to rethink the structure of learning activities, ensuring that learners are equipped with the knowledge and skills to navigate the challenges of the modern era. It is likely that we will be required to identify solutions to a multitude of emerging issues, and that new technologies will also be developed which are currently unfeasible and unnecessary. The four main principles of 21st-century learning, as outlined by Jennifer Nichols in 2013, are as follows: (1) instruction should be student-centered; (2) education should be collaborative; (3) learning should have context; and (4) schools should be integrated with society. (Nichols, 2013)

These four principles can be explained as follows:

(1). Instruction should be student-centered, and learning design should adopt a learner-centered approach. Learners are active subjects of learning who can develop their interests and potential, and are not required to merely listen and memorize subject matter. Learners should be encouraged to construct their knowledge and skills according to their capacity and level of development, and be directed to contribute to solving real problems that occur in their environment.

In learner-centered learning, the teacher plays an instrumental role, serving as a facilitator who strives to assist learners in connecting their existing knowledge with new information. Additionally, the teacher can guide students in learning according to their individual learning styles and encourage them to assume responsibility for their learning process. Teachers can also act as mentors, providing support to students when they encounter challenges in the learning journey.

(2). Education should be collaborative, with learners learning to collaborate with others. It is strongly recommended that learners work on a project, as this allows them to appreciate the strengths of others and learn how to take on roles and adapt to their environment.

This necessitates the presence of educators who are capable of engaging in collaborative endeavors with their peers and other academic institutions across the globe. Such interactions facilitate the exchange of knowledge and experiences pertaining

to the evolution of pedagogical approaches. Consequently, educators are expected to demonstrate a proclivity for refining their instructional strategies in a manner that enhances their effectiveness.

(3) Context is an essential element of meaningful learning. Learning experiences that have an impact on students' lives outside of school are more likely to be retained and applied in their daily lives. It is therefore essential that the subject matter be connected to the learners' daily lives. Teachers are required to develop learning methods that allow learners to connect with the real world. Teachers play a pivotal role in enabling students to find meaning and confidence in what they learn and to apply it in their daily lives. Teachers must also be adept at assessing students' projects that are linked to the real world.

In (4), schools should be integrated with society. Efforts should be made to prepare students to become responsible citizens who can be directly involved in their social environment. This can be achieved, for example, by organizing social activities, public health programs, or being directly involved in activities related to environmental care. Learners can learn to take on roles and activities in their social environment, thereby developing empathy and social care.

The advent of technology and the internet has expanded the possibilities for learners in terms of the activities they can undertake. The social space has become more accessible, with the potential to engage with a diverse range of individuals across different geographical regions. In this context, educators bear the responsibility of guiding learners towards becoming responsible citizens of the world, including the digital realm.

Consequently, successful 21st-century learning will result in the acquisition of the skills collectively known as the 4Cs: creative thinking, critical thinking and problem solving, communication, and collaboration. Successful 21st-century learning is contingent upon teachers who are unafraid of change, adaptable to evolving circumstances, adept at impactful learning, and able to bridge the gap between the classroom and the real world. They must also demonstrate a commitment to lifelong learning and professional development. (Saroni, 2020) (Ridlo, 2020)

In the context of 21st-century learning, the availability of digital teaching materials is a crucial element, particularly in the case of Indonesian language instruction. In the context of Indonesian language learning, the Indicator of Reading texts about human and environmental relationships discuss material on human and environmental stories. This kind of material is inaccessible to students because they lack interest in reading. Teachers tend to use integrated thematic textbooks and limited teaching media for the material, which further impedes students' comprehension. Without understanding the relationship between humans and the environment through reading texts, students cannot present information about nature and the influence of human activities through role-playing in accordance with the learning objectives. (Kustianingsari, N., & Dewi, 2015).

The learning process can be defined as a communicative process through which teachers and students interact with one another. In accordance with Minister of Learning and Culture Regulation No. 81A of 2013, the principles of education are as follows: (1) The focus is on the students as participants, (2) the aim is to enhance the students' creativity, (3) the learning environment is designed to be engaging and stimulating, (4) the curriculum encompasses values, ethics, aesthetics, logic, and kinesthetics, and (5) the students are exposed to a diverse range of learning experiences. The principle of learner-centered or student-centered education is incorporated into the implementation of the 2013 National Curriculum. The 2013 curriculum is predicated on the notion that the transfer of knowledge from teacher to student is an insufficient approach to education. Students are regarded as subjects who are capable of actively seeking, digesting, constructing, and utilising knowledge. Consequently, education must prioritize the provision of opportunities for students to construct knowledge through their cognitive processes (Kemdikbud, 2013). One of the defining characteristics of the 2013 curriculum is student-centered learning, which aligns with the constructivist theory that views students as individuals who possess innate knowledge that can be developed through diverse activities. The objective of this construction process is to enable students to truly master and apply knowledge. To achieve this, students must be encouraged to work to solve problems, create solutions independently, and persevere in the pursuit of their ideas. The role of the teacher is to facilitate learning opportunities for students, enabling them to progress along a cognitive ladder that leads to greater elaboration. Initially, this process is supported by the teacher, but over time, it becomes increasingly independent. For students, the educational paradigm must shift from a passive receptivity to an active pursuit of knowledge. In this constructivist approach to education, students actively construct their own knowledge about knowledge, which is inherently dynamic, evolving from simple to environmental, from simple to a broader scope, and from concrete to abstract (Kemendikbud, 2014).

In accordance with the 2013 curriculum, students are required to engage in the construction of understanding through reasoning, both independently and in discussion groups or small groups that analyze learning materials. The teacher's role is that of a facilitator, guiding the process of knowledge construction. In this student-centered learning approach, students assume greater responsibility for monitoring their own learning progress. The learning tasks they are required to complete are more open-ended and challenging to master. Students are encouraged to engage in higher-order thinking.

The completion of learning tasks for students and teaching tasks for educators will be more straightforward and efficient if they make use of the digital technology currently being developed. One example of this is the utilisation of the YouTube channel. In light of current technological advances, the student-centred learning approach is one of the most appropriate approaches used in the process of learning activities that utilise digital-based learning media. One such example is the YouTube tool.

In the context of learning in the classroom, the message conveyed can be in the form of teaching materials delivered verbally (oral and written) and/or nonverbally (gestures). Research conducted by the We Are Social organization in 2022 indicates that Indonesians represent a significant resource in utilizing the internet (YouTube.com is the second largest website visited after

Google.com). The ability of Indonesians to use digital technology is already quite proficient. However, its utilization remains primarily limited to entertainment.

With regard to the utilization of YouTube media, it can be observed that out of 15 classes taught, each class is occupied by 15 students on average. However, it is notable that only 7-8 students utilize the media, which suggests that its use remains primarily recreational. In light of this phenomenon, it is imperative that educators leverage digital technology to transform learning into a more innovative and engaging experience. The advent of digital media has ushered in a new era of educational possibilities, where traditional, one-size-fits-all learning approaches are being supplanted by more dynamic and flexible alternatives. These digital learning environments are often perceived as more practical, adaptable, and not constrained by geographical or temporal boundaries. To fully capitalize on the potential of digital technology in education, it is essential that teachers and other education professionals possess the ability to effectively utilize information and communication technology (ICT) as a learning medium.

II. METHODS

This research employs the Research and Development (R&D) method in the form of field research, specifically the application of teaching material development. Research and Development (R&D) is a research method that is implemented with the aim of producing certain products to test their effectiveness (Harahap, H. T., Mushlihuiddin, 2022). The research design used is the ADDIE model, developed by Branch (2009), which has five main phases: Analysis, Design, Development, Implementation, and Evaluation. (Branch, 2009)

This section delineates the object of the research, as well as the location and temporal parameters of the research. Additional information may be included if deemed pertinent. In this case, the object of the research is the student population of MTs Ma'had Al-Zaytun Gantar, Indramayu.

The research design employed is the ADDIE model, developed by Branch (2009), which comprises five principal phases: Analysis, Design, Development, Implementation, and Evaluation. The ADDIE model is schematized by Branch as a learning system design, as illustrated below:

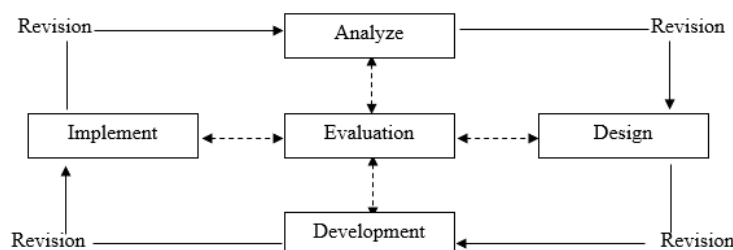


Figure 1. ADDIE Model

There are stages or steps that are carried out in a procedural manner, as well as instructional design models that are not procedural or cyclical and may originate from a specific stage. Additionally, there are integrated learning design models. The following is a table of the development stages of the ADDIE learning design model, which is procedural in nature.

The collection of data represents the most crucial stage of the research process, as the primary objective is to obtain empirical evidence. The data gathered in this study encompasses:

1. An interview is a data collection technique whereby direct oral questions and answers are posed to respondents.

A questionnaire is a data collection technique that involves presenting a set of questions to respondents for answers. The questionnaire used for data collection includes the respondents' profiles and responses to questions related to the indicators of each research variable.

The research will be conducted at MTs Ma'had Al-Zaytun, which is situated in Indramayu Regency. Ma'had Al-Zaytun is an educational institution that aims to produce well-rounded individuals who are equipped with the knowledge and skills to thrive in an ever-evolving global landscape. It fosters the development of individual creativity, instills a competitive spirit, encourages an independent mindset, cultivates a spirit of inquiry and discovery, fosters attentiveness to group and national dynamics, and develops proficiency in communication through the use of dominant international languages. Additionally, the institution emphasizes high levels of discipline, mastery of the art of reciting the Holy Quran, and the upholding of noble character traits. The objective of enhancing the quality of ummah education is encapsulated in the motto: Al-Zaytun Education Center for the Development of a Culture of Tolerance and Peace Towards a Healthy, Smart, and Humane Society. In alignment with this vision, all subjects must be taught effectively to ensure the attainment of the expected level of competence. This encompasses Indonesian language subjects.

Once data collection is complete, data analysis can commence. The number of data analysis activities undertaken will depend on the level of research, the type and number of problem formulations, and the number of hypothesis formulations (Sugiyono, 2019: 245). This study employs a qualitative descriptive analysis technique to describe the results of product development in the form of digital teaching materials for explanatory texts.

The qualitative data collected in the research and development phase will be employed to assess the responses of students to the digital teaching materials for explanatory texts that have been developed. The questionnaire employed is a Likert scale questionnaire. As posited by Sugiyono (2019: 165) in the context of research and development, the Likert scale can be utilized to develop instruments for measuring the attitudes, perceptions, and opinions of an individual or group of individuals regarding the potential and problems associated with an object. The data obtained through the trial instrument were analyzed using qualitative and quantitative descriptive statistics. This analysis is intended to describe the characteristics of the data pertaining to each variable. (Sugiyono, 2019)

III. RESULTS AND DISCUSSION

Research that produces the final product in the form of digital teaching materials for explanatory texts for junior high school / MTs students uses the research and development method (Research and Development) with the ADDIE model (Analysis Design Development Implementation Evaluate) so that it can produce quality products and is suitable for use as Indonesian language teaching materials on explanatory text material at the junior high school / MTs grade VIII education level. The following is an explanation of the stages of the results of developing digital teaching materials for explanatory texts using the ADDIE model from the analysis stage to evaluation.

A. Analysis

The initial stage of the ADDIE development model is the analysis phase. The initial stage of the ADDIE model, analysis, is concerned with identifying and examining the needs of students and teachers, as well as the content of explanatory texts. The findings of the analysis of student and teacher needs led to the identification of a problem. The subsequent determination of the necessity for the development of teaching materials was based on the identified problem. The digital teaching materials for explanatory texts, which were selected by the researchers, were developed using the Canva application integrated with Heyzine..

B. Design

The second stage of the ADDIE development model is the design stage. At this juncture, a series of actions are undertaken, commencing with the formulation of learning outcomes and objectives, the creation of instructional materials, the selection of digital format options, and the development of digital material scripts. The initial step is the preparation of learning outcomes and learning objectives, which serve to determine the material to be utilized as teaching resources. The subsequent phase of material formulation entails the specification of the material's details in alignment with the themes presented in digital teaching materials. The selection of the format and components of digital teaching materials is refined to align with the theoretical study of the evolution of contemporary digital teaching materials. The outcomes of the design of digital teaching materials are then presented to the supervisor for feedback and suggestions for improvement.

C. Development

The second stage of the ADDIE development model is the design stage. At this juncture, a series of actions are undertaken, commencing with the formulation of learning outcomes and objectives, the creation of instructional materials, the selection of digital format options, and the development of digital material scripts. The initial step is the preparation of learning outcomes and learning objectives, which serve to determine the material to be utilized as teaching resources. The subsequent phase of material formulation entails the specification of the material's details in alignment with the themes presented in digital teaching materials. The selection of the format and components of digital teaching materials is refined to align with the theoretical study of the evolution of contemporary digital teaching materials. The outcomes of the design of digital teaching materials are then presented to the supervisor for feedback and suggestions for improvement.

D. Implementation

The fourth stage of the ADDIE development model is Implementation. After the digital teaching materials are validated by material experts and media experts and declared feasible to use as learning materials, the digital teaching materials are tested on students to get responses as users. The questionnaire provided for data collection is 21 assessment items with a score range per item of 1-4. Aspects of the assessment of digital teaching materials consist of appearance, presentation of material, and benefits. Research on the trial was conducted on class VIII students of MTs Ma'had Al-Zaytun, Indramayu, totaling 27 students.

E. Evaluation

The fifth stage of the ADDIE development model is Evaluate. After the implementation stage is carried out, the next stage is the assessment of digital teaching materials for explanatory text. At this stage, the assessment of digital teaching materials seen is the feasibility of digital teaching materials for explanatory texts. This assessment was carried out by material experts, media experts,

practitioners (Indonesian language teachers), and students as users of the final product of digital teaching materials for explanatory texts.

F. Digital Teaching Material Analysis Stage of Explanation Text

The analysis stage is conducted through direct observation. The results of the observation indicate that several issues persist in the learning process. Some of the aforementioned issues have led to the absence of digital instructional materials for explanatory texts in Indonesian language learning materials. The learning process remains teacher-centered, as students are unable to engage in independent learning due to the unavailability of digital teaching materials for explanatory texts. Additionally, an analysis of the learning outcomes (CP) of Indonesian language grade VIII was conducted with the objective of identifying the most suitable digital teaching materials for explanatory texts.

In light of the aforementioned issues, the researchers proposed the development of digital teaching materials for explanatory texts. They presented their proposal to the principal and the Indonesian language teacher for grade VIII, who expressed enthusiasm and support for the proposed innovation.

The development of literacy skills is contingent upon the acquisition of language, literature, and thinking skills. All fields of study, areas of life, and social goals rely on literacy skills. Literacy is a fundamental skill that is utilized throughout one's lifetime, both in professional endeavors and in academic pursuits. Consequently, Indonesian language learning can be defined as literacy learning for various purposes of communication in the Indonesian socio-cultural context. Literacy skills are developed in the following areas: listening, reading and viewing, writing, speaking, and presenting. These skills are developed for various genre-based purposes related to language use in life. Each genre has a text type that is based on a particular text-structure-thinking flow. A text type is a train of thought that can optimize the use of language for lifelong work and learning.

The primary model employed in Indonesian language learning is genre pedagogy. This model encompasses four stages: explaining, building context, modeling, joint construction, and independent construction. In addition to genre pedagogy, Indonesian language learning can be developed with other models in accordance with specific learning outcomes. The guidance and development of Indonesian language skills facilitate the formation of a Pancasila person who is faithful, devoted to God Almighty, and possesses noble character, critical thinking, independence, creativity, mutual cooperation, and an appreciation for global diversity.

The objective of Indonesian language instruction is to facilitate the development of the following competencies in students:

- 1) The inculcation of noble morals through the use of polite Indonesian language.
- 2) An attitude of prioritizing and appreciating Indonesian as the official language of the Republic of Indonesia.
- 3) The ability to utilize a range of multimodal texts (oral, written, visual, audio, and audio-visual) for diverse purposes and contexts.
- 4) Fourthly, students should be equipped with literacy skills, encompassing language, literature, and creative critical reasoning, which will facilitate their learning and professional development.
- 5) The capacity to express oneself as a capable, independent, cooperative, and responsible individual.
- 6) A commitment to preserving local culture and the surrounding environment.
- 7) A commitment to engage as a democratic and just citizen of Indonesia and the global community.

By the conclusion of Phase D, learners have acquired the linguistic abilities necessary to communicate and reason effectively in accordance with the specific requirements of the context, whether social or academic. By the conclusion of this phase, learners will have developed the ability to comprehend, process, and interpret a range of information on diverse topics and literary works. They will also have acquired the capacity to actively engage in discussions, presenting and responding to both nonfiction and fiction. Additionally, learners will have acquired the ability to write a variety of texts, employing a more structured approach to convey their observations and experiences. They will also be able to write responses to presentations and reading materials, drawing upon their experience and knowledge. Furthermore, learners will have developed self-competence through exposure to a range of texts, thereby strengthening their characters.

A preliminary observation conducted at MTs Ma'had Al-Zaytun revealed that the school was equipped with sufficient technological resources to facilitate student learning and support researchers in their use of digital teaching materials for explanatory texts. The school is equipped with smart TVs and an adequate internet network, with WiFi available. In addition to the facilities owned by the school, each learner is provided with a laptop that is adequate for accessing digital learning media for explanatory texts.

The results of a survey conducted by researchers indicated that students at MTs Ma'had Al-Zaytun have not utilized digital-based explanatory text teaching materials. The teaching materials utilized in Indonesian language lessons on explanatory text material are limited to printed books published by Erlangga. Based on interviews with Indonesian language teachers and students, there was a positive response to the researchers' proposal to provide digital teaching materials for explanatory texts.

G. Design Stage of Explanatory Text Digital Teaching Materials

The research and development of "Digital Teaching Materials for Explanation Text for Junior High School/MTs" was conducted at Madrasah Tsanawiyah Ma'had Al-Zaytun, Indramayu. This research employs the R&D (research and development) method with the ADDIE model, comprising five stages: analysis, design, development, implementation, and evaluation. The objective of developing teaching materials using the ADDIE model is to elucidate the design and implementation outcomes of digital teaching materials for explanatory texts for junior high school/MTs students. The following is an exposition of the design of digital teaching materials for explanatory texts for junior high school/MTs.

1. Preparation of a Framework for Digital Teaching Materials
The preparation of the digital teaching material framework is based on the learning outcomes and learning objectives of Indonesian language subjects on explanatory text material. The digital teaching materials to be developed are comprised of three main parts: the beginning, content, and end.
2. Collection and selection of references
The collection and selection of references are tailored to align with the intended use of the digital teaching materials for explanatory texts. Based on the search results, the researchers identified and selected a number of references deemed to meet the requirements for the preparation of digital teaching materials for explanatory texts.
3. Preparation of Digital Teaching Materials and Design
The design and features of the digital teaching materials include the initial part, which comprises a cover, title page, table of contents, concept map, and introduction. The content part of the digital teaching materials consists of material descriptions, summaries, and self-assessments. The final part consists of evaluation, bibliography, and glossary.
4. Cover
The cover of the digital teaching material for explanatory texts for junior high school/MTs students contains the following elements: the title of the teaching material, namely "Digital Teaching Material for Indonesian Explanatory Text," the module concentration for class VIII SMP/MTs, images of natural disasters (earthquakes and floods), maps of Indonesia, red and white flag ribbons, a response code (QR), and the name of the compiler. The background color display is either blue or white, with red and gray line elements. The cover design, which is adjusted to the teaching material and level of education, is intended to stimulate students' interest in learning the material presented in digital teaching materials. The design of digital teaching materials for explanatory texts employs the Canva application integrated with Heyzine.
5. Table of Contents
The table of contents section comprises a list of the constituent parts of the digital teaching materials, together with the page numbers on which they are to be found. The following table of contents is provided to assist users in locating the desired sections of the digital teaching materials based on the page number. The organization of the content within each section is designed to facilitate navigation for users of digital teaching materials, allowing them to easily locate the section they intend to read. The table of contents provides an overview or outline of the contents of the digital teaching materials developed. The design of this table of contents consists of the following elements: table of contents, concept map, introduction, module identity, instructions for using the module, basic competencies, learning activities, material descriptions, summaries, self-assessment, evaluation, bibliography, and glossary. The following is the design of the table of contents and the developed digital teaching materials for explanatory texts.
6. Concept Map
The concept map provides a visual representation of the explanation text material that will be utilized in digital teaching materials. The objective of creating a concept map is to provide a visual representation of the interconnectivity between concepts and other related concepts. The concept map in this digital teaching material is presented in the form of an image diagram. The concept map was developed to:
 - (1) provide a structural framework for the explanatory text, comprising general statements, explanatory series, and reviews;
 - (2) identify the characteristics of the explanatory text, including its factual, scientific, informative, and structured nature; and
 - (3) delineate linguistic rules governing the use of action verbs, passive sentences, time-indicating conjunctions, causal conjunctions, general and abstract nouns, and technical terminology or terms. The concept map is designed to facilitate comprehension of the interrelationships between concepts. The following is a description of the concept map and digital teaching materials for explanatory texts developed.
7. Introduction
The preliminary design of the digital teaching material for explanatory texts includes the following elements: (1) instructions for using the digital teaching material, (2) the identity of the digital teaching material, which consists of educational units, classes, subjects, semesters, time allocations, subject matter, and sub-materials, and (3) learning outcomes (CP) that will be achieved through learning with the digital teaching material. The introduction section of the digital teaching material contains the following elements: (1) instructions for using the digital teaching material, (2) the identity of the digital teaching material, which consists of educational units, classes, subjects, semesters, time allocations, subject matter, and sub-materials, and (3) learning outcomes (CP) that will be achieved through learning with the digital teaching material.
8. Content Section of Digital Teaching Materials

The digital teaching materials have been developed for one meeting, comprising two 35-minute sessions. The learning activities comprise three main elements: (1) material descriptions, which include the definition, purpose, characteristics, structure, linguistic rules, and content of the explanatory text; (2) a summary of the material; and (3) self-assessment questions about the understanding of the explanatory text, with two possible answers: "yes" or "no." The following section presents examples of explanatory texts utilized as pedagogical resources, with a focus on earthquakes and floods. The subsequent section outlines the design of learning activities for digital teaching materials developed for explanatory texts.

9. Conclusion of Digital Teaching Materials

The concluding section of the digital teaching materials comprises three elements: (1) an evaluation comprising 15 multiple-choice questions, answer keys, and assessment rubrics; (2) a bibliography; and (3) a glossary.

10. Design of Explanation Text Digital Teaching Material Development Model

The design of the digital teaching material model for explanatory text employs the Canva application, which is integrated with Heyzine, which is accessible via a single application.

H. Stage of Development of Digital Teaching Materials for Explanatory Texts

Prior to the assessment of digital teaching materials with students, a validation process is undertaken. The objective of this validation process is to evaluate digital teaching materials in terms of their content and format to ascertain whether they meet the criteria for testing on students. The validation of digital teaching materials entails the input of both material and media experts.

The material was validated by a doctoral material expert from Swadaya Gunung Jati University in Cirebon. The questionnaire comprised 41 assessment items, with alternative assessments as follows: very good (SB) was awarded a score of 4, good (B) a score of 3, less (K) a score of 2, and very less (SK) a score of 1. The assessment by material experts encompasses three key areas: (1) content feasibility, which includes the suitability of the material with learning outcomes, the accuracy of the material, supporting learning materials, and the currency of the material; (2) feasibility of presentation, which encompasses presentation techniques, supporting presentation, presentation of learning, and completeness of presentation; and (3) language assessment, which includes straightforwardness, communicativeness, suitability for the level of development of students, conciseness and cohesiveness of thought flow, and use of terms.

The assessment of digital teaching materials for explanatory texts for material experts is comprised of three distinct aspects. The results of the assessment of each aspect are expressed as a distinct average score. In terms of content feasibility, the mean score is 3.6, indicating that the material is deemed to be "very feasible." The average score for the presentation feasibility aspect was 3.6, indicating that it is in the "very feasible" category. The language assessment aspect yielded an average score of 3.4, indicating that it falls within the "Very Feasible" category.

The mean total score for the assessment by material experts in general is 3.5, with a maximum score of 4. According to the feasibility category table for digital teaching materials for explanatory texts in the data table of the material expert assessment results, these materials are included in the "Very Feasible" category. The following diagram depicts the results of the assessment validation by the material expert.

Media validation was conducted by a doctoral media expert from the Al-Zaytun Islamic Institute of Indonesia. The questionnaire comprised 28 assessment items, with alternative ratings of "very good" (SB) assigned a score of 4, "good" (B) a score of 3, "less" (K) a score of 2, and "very less" (SK) a score of 1. The assessment by media experts encompasses three key areas: (1) module size, encompassing the physical dimensions of the module, (2) module cover design, which includes the module skin layout, the font used, and the module cover illustrations, (3) module content design, which covers layout consistency, the use of harmonious and complete layout elements, the facilitation of understanding through typography, and the incorporation of illustrations. The scores obtained from the questionnaire are then averaged to produce a single assessment score on a scale of 1 to 4. Subsequently, the average score is categorized according to the level of feasibility.

The assessment of digital teaching materials for media experts is divided into three categories: the size of digital teaching materials, the cover design of digital teaching materials (cover), and the design of the content of digital teaching materials. The results of the assessment for each aspect are expressed as an average score, which varies. With regard to the aspect of the size of digital teaching materials, the average score is 4.0, which categorizes it as "very feasible." The average score for the cover design aspect of digital teaching materials is 3.8, indicating that it is deemed to be "appropriate." In terms of content design for digital teaching materials, the average score is 3.8, indicating a "very feasible" category. The aggregate assessment of media experts yielded an average total score of 3.9, with a maximum score of 4. This places the digital teaching materials in the "Appropriate" category with respect to media.

An assessment was conducted by Indonesian language teachers at MTs Ma'had Al-Zaytun, Gantar, Indramayu. The assessment consisted of 10 items, with alternative assessments ranging from "very good" (SB) to "very less" (SK). The scoring system utilized a value of 4 for "very good" (SB), 3 for "good" (B), 2 for "less" (K), and 1 for "very less" (SK).

The assessment was organized into two categories: material aspects and aspects of linguistic feasibility. Subsequently, the assessment scores obtained via the questionnaire are averaged to yield a single assessment score within the range of 1 to 4. Subsequently, the average scores are classified according to the level of feasibility.

The assessment of digital teaching materials by practitioners is divided into two categories: material aspects and linguistic feasibility. The results of the assessment on each aspect yielded disparate average scores. With regard to the material aspect, the average score is 3.8, indicating that the material is deemed to be "very feasible." The linguistic feasibility aspect received an average score of 4.0, indicating that it falls within the "very feasible" category. The aggregate assessment by practitioners yielded an average total score of 3.9, with a maximum score of 4. This indicates that digital teaching materials are included in the "Very Feasible" category with respect to both material and linguistic feasibility.

I. Implementation Stage of Explanation Text Digital Teaching Materials

After the digital teaching materials are validated by material experts, media experts, and practitioners and declared feasible to use as teaching materials, then the digital teaching materials for explanatory texts are tested on students to get responses as users. The questionnaire provided for data collection is 21 assessment items with a score range per item of 1-4. The aspects of evaluating the digital teaching materials for explanatory text consist of appearance, presentation of material, and benefits. Research on the trial was conducted at MTs Ma'had A-Zaytun which amounted to 27 students.

This product trial aims to test the feasibility of digital teaching material products for explanatory texts. Test to find out student responses to digital teaching materials for explanatory texts. In the product trial, the digital teaching materials involved 27 students in the learning process then students were given a questionnaire to assess the appearance, presentation of material, and benefits of digital teaching materials for explanatory texts. The test was conducted at MTs Ma'had A-Zaytun which amounted to 27 students. The assessment score through the questionnaire which is then made an average with an assessment score from 1-4.

The trial of digital teaching materials for explanatory texts consisted of three aspects of the assessment carried out. The results of the average score on each aspect vary. The "Display" aspect obtained an average total score of 3.6 so that it could be included in the "Very Feasible" category. The "Presentation of Material" aspect obtained an average score of 3.5 which means it falls into the "Very Feasible" category. The "Benefits" aspect received an average score of 3.6 which is included in the "Very Feasible" category. Overall, the total average of the three aspects received a score of 3.56 which is included in the "Very Feasible" category.

Knowing the results of the product usage test of digital teaching materials for explanatory text, it can be seen from the results of the score before using the product and after using the product. The results of the scores before and after using the product to determine the success in using digital teaching materials for explanatory texts. The results of the score before using the product with after the trial of 27 students, there was an increase in the acquisition of the score.

The score of the test results after learning using digital teaching material products for explanatory texts has increased. Based on the score of the test results, it shows that the product of the digital teaching material product of the explanatory text is feasible to use in learning. Based on the data from the test results of the digital teaching materials for explanatory texts, it can be described in the following diagram of the results of the initial stage trial test. The results of the paired sample t-test test in the early stage trial aims to determine the comparison of results before and after using digital teaching materials for explanatory texts.

Tabel 1. Paired Sample T-Test

		Paired Differences					t	df	Significance	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				One-Sided p	Two-Sided p
					Lower	Upper				
Pair 1	Before Using Digital Teaching Materials – After using Digital Teaching Materials	-23,59259	3,97356	,76471	-25,16448	-22,02070	-30,852	26	<,001	<,001

The results of the paired sample t-test test on the results of the digital teaching material test results of the explanatory text above show that the difference in the average value of learning outcomes before and after using digital teaching materials for explanatory text is 23.59; The calculated t value is 30.852 > t table 1.703; sig. (2-tailed) 0.001 < 0.05. Based on this value, it can be concluded that there is a difference in learning outcomes before and after using digital teaching materials for explanatory texts. The difference has increased significantly. This can be seen from the increase in test results on the overall average from before using the product and after using the product.

J. Evaluation Stage of Explanation Text Digital Teaching Materials

Digital teaching material products for explanatory texts that have been made are not free from errors, so an evaluation is carried out. Therefore, based on the validation of learning material experts, the digital teaching material products for explanatory texts

are made improvements according to the results of corrections by learning material experts. The following is an evaluation of digital teaching materials for explanatory texts that must be improved.

1) Material

Revisions were made based on corrections and suggestions given by material experts. According to the material experts, the things that were revised in the product of digital teaching materials for junior high school / MTs, namely the evaluation questions used using the description test.

The response from the material expert is that overall the digital teaching materials for explanatory texts are suitable for use in the field with revisions. The suggestions are "the evaluation used is not yet in accordance with the learning outcomes (1) to measure learning outcomes, the evaluation should be in the form of a description test (2) to identify the text, the question should be presented text so that students can identify the text". After receiving corrections from the material expert, further improvements were made to perfect the digital teaching material product for explanatory text.

2) Media

Revisions were made based on corrections and suggestions given by media experts. According to the media experts, the things that were revised in the product of digital teaching materials for junior high school / MTs, namely, among others, the size of the title font on the cover is still less dominant and the images or illustrations used must be captioned.

The response from the media expert is, overall, the digital teaching materials for the explanation text for junior high school / MTs students are quite good. Explanation text digital teaching materials are suitable for use in the field with revisions. As for the input, "among them on the cover, the title font size is still less dominant. And other inputs, related to the images or illustrations used should all be given a caption". After receiving corrections from the media expert, further improvements were made to perfect the product of digital teaching materials for explanatory texts.

K. Discussion

The results of the implementation of digital teaching materials for explanatory texts for junior high school/MTs are overall feasible to use as a learning model. This feasibility is evidenced from the evaluation results by learning model experts, media experts, and practitioners, as well as from field trials. Based on the data analysis of the research results, the assessment results can be explained in the discussion as follows.

1) Learning Material Experts

The feasibility of digital teaching materials for explanatory texts for junior high school/MTs is assessed in three areas: content feasibility, presentation feasibility, and language assessment. The results of the assessment conducted by learning material experts indicated that the feasibility of digital teaching materials for explanatory texts for junior high school/MTs students reached an average total score of 3.5, with the highest score value being 4.0. The details are as follows: (1) "Content Feasibility" obtained a score of 3.6, which indicates that it (1) Content Feasibility: 3.6, Very Feasible; (2) Presentation Feasibility: 3.6, Very Feasible; (3) Language Assessment: 3.4, Very Feasible This indicates that the experts in the field of learning materials have determined that digital teaching materials for explanatory texts for students in junior high school and middle school are suitable for use as a model for learning.

2) Media Expert

The feasibility of digital teaching materials for explanatory texts for junior high school/MTs students is assessed in three areas: the size of the digital teaching materials, the cover design of the digital teaching materials, and the design of the digital teaching materials content. The results of the assessment conducted by the media expert indicated that the feasibility of digital teaching materials for explanatory texts achieved an average total score of 3.9 on a scale of 1 to 4.0, with the following details: (1) "Size of Digital Teaching Materials" received an average score of 4.0, indicating that it is in the "Very Feasible" category; (2) "Digital Teaching Material Cover Design" received an average score of 3.8, indicating that it is in the "Feasible" category; and (3) "Digital Teaching Material Content Design" received an average score of 3.8, indicating that it is in the "Very Feasible" category. The "Digital Teaching Material Cover Design" category received an average score of 3.8, indicating that it is "Feasible." Similarly, the "Digital Teaching Material Content Design" category received an average score of 3.8, indicating that it is also "Feasible." Taken together, these results suggest that media experts view digital teaching materials for explanatory texts in the "Very Feasible" category as viable teaching materials.

3) Practitioner (Indonesian Language Teacher)

The assessment of the feasibility of digital teaching materials for explanatory texts for students in junior high school (MTs) was conducted by Indonesian language teachers from MTs Ma'had Al-Zaytun in Indramayu. The assessment is comprised of three elements: material feasibility and language feasibility. The results of the assessment conducted by Indonesian language teachers indicated that the feasibility of digital teaching materials for explanatory texts achieved an average total score of 3.9 on a scale of 4.0. The assessment results are detailed as follows: (1) the "Material" aspect received an average score of 3.8, which falls within the "Very Feasible" category, and (2) the "Language Feasibility" aspect received an average score of 4.0, which also falls within the "Very Feasible" category. The average score for this category was 3.8, indicating that the materials are "very feasible." Similarly, the average score for the "language feasibility" category was 4.0, indicating that the materials are "very feasible" in this regard as well. Taken together, these

results suggest that Indonesian language teachers from MTs Ma'had Al-Zaytun, Indramayu view digital teaching materials for explanatory texts in the "very feasible" category as effective teaching materials.

4) Trial of Explanation Text Digital Teaching Materials

A feasibility assessment and preliminary trial of digital teaching materials for explanatory texts were conducted with 27 students in the eighth grade at MTs Ma'had Al-Zaytun. The assessment is comprised of three aspects, namely "Display," which obtained an average total score of 3.6, thus falling within the "Very Feasible" category. The "Presentation of Material" aspect achieved an average score of 3.5, indicating that it falls within the "Very Feasible" category. The "Benefits" aspect attained an average score of 3.6, which is also included in the "Very Feasible" category. Overall, the total average value of the three aspects received a score of 3.5, which is included in the "Very Feasible" category.

The results of the paired sample t-test conducted during the initial trial demonstrated a statistically significant difference in the mean learning outcomes before and after the implementation of digital teaching materials for explanatory texts, with a calculated t-value of 30.852 exceeding the t-table value of 1.703 and a p-value of less than 0.001. (Two-tailed) $0.001 < 0.05$. In light of this value, it can be posited that there is a notable enhancement in learning outcomes before and after the utilisation of digital teaching materials for explanatory texts.

The data analysis indicates that the overall average value of the evaluation results by learning material experts, media experts, practitioners, and product trials of digital teaching materials for explanatory texts falls within the "Very Feasible" category, suggesting its potential suitability as digital teaching materials in Indonesian language lessons at the junior high school/MTs grade VIII level.

L. Final Product Explanatory Text Digital Teaching Materials

The final product of this research and development is to produce digital teaching materials for explanatory texts for junior high school / MTs students. This digital teaching material is a learning media designed to help students understand, compile, and convey the results of their observations. The main target users of digital teaching materials for explanatory texts are students of junior high school / MTs grade VIII.

The main target users of digital teaching materials for explanatory texts for junior high school / MTs are grade VIII students. At this level of education, students are expected to be able to understand, analyze, and compose explanatory texts properly according to the applicable curriculum. Digital teaching materials are designed to facilitate the teaching and learning process by providing interactive, interesting, and easily accessible materials. Explanatory text materials in digital form make it easier for students to understand the basic concepts of explanatory text, including the structure, characteristics, and functions of the text. In addition, this teaching material aims to develop students' digital literacy skills which are very important in the current era of information technology.

Other target users are teachers who teach Indonesian language subjects in junior high schools/ secondary schools. These digital teaching materials are designed to help teachers deliver materials more effectively and efficiently. With digital teaching materials, teachers can utilize various interactive features to explain the concepts of explanatory text more interestingly and provide exercises and evaluations that can be accessed online by students. It also provides flexibility for teachers to adapt the materials to the local context and specific needs of their students, making the learning process more relevant and contextualized. Thus, these digital teaching materials not only improve the quality of student learning but also support teachers' professionalism and creativity in teaching.

This final product will be available in a digital format, the Heyzin app, so that it can be accessed by students and teachers anytime and anywhere. This not only facilitates learning but also encourages students' active involvement in the learning process, while maintaining local relevance that makes learning more contextual and interesting. The following is the final product of digital teaching materials for explanatory texts for junior high school students.

IV. CONCLUSIONS

In light of the findings from the research and development of Indonesian language teaching materials on explanatory text material at the junior high school/MTs level, it can be concluded that the design of digital teaching materials for critical thinking explanatory text for junior high school/MTs students comprises a cover, a pre-material, the material itself, and a post-material. The digital teaching materials were created using the Canva application, which is integrated with Heyzine. The language utilized in the aforementioned teaching materials adheres to the standards of standard communicative language. In terms of readability, the text is set in size 14 font for the main body of the material and size 16 for the chapter titles, using the Times New Roman font. Additionally, digital teaching materials are accompanied by the sound of musical instruments, which have been demonstrated to enhance concentration and mitigate boredom. Prior to testing the digital teaching materials for explanatory texts on students, the content is validated by material experts and media experts who hold doctoral degrees and possess expertise in their respective fields. This digital teaching material is accessed via a laptop or smartphone with internet connectivity. In order to access the digital teaching materials, users are required to input the provided link or quick response code (check code). The implementation of critical thinking explanation teaching materials for junior high school/MTs students yielded positive responses from the students

who utilized this digital teaching material. The results of the trial of digital teaching materials for explanatory texts from three aspects of the overall assessment yielded an average total score of 3.5, which corresponds to the highest score of 4.0. This places the materials in the "very feasible" category. In light of the findings from the implementation discussion, it can be concluded that the digital teaching materials for critical thinking explanatory texts for junior high school/MTs students are highly suitable for use as teaching materials, particularly in the context of Indonesian language subjects at the junior high school/MTs grade VIII level of education.

ACKNOWLEDGEMENTS

Author thanks to all people whom support this study. In most cases, sponsor and financial support acknowledgments.

REFERENCES

- Azmi, D. N. (2020). Pengembangan Bahan Ajar Menulis Teks Eksplanasi Bertema Pendidikan Kesehatan Dengan Media Video Untuk Siswa Kelas VIII SMP Di Era Pandemi Covid 19. In *Prosiding Seminar Nasional Pascasarjana (PROSNAMPAS)* (Vol. 3, No. 1, Pp. 847-852).
- Branch, R. M. (2009). *Instructional design: The ADDIE approach* (Vol. 722). Springer Science & Business Media.
- Ekawati, D., Gloriani, Y., & Mascita, D. E. (2022). PENGEMBANGAN BAHAN AJAR TEKS DESKRIPSI DIGITAL MENGGUNAKAN APLIKASI KVISOFIT FLIPBOOK MAKER UNTUK SISWA KELAS VII DI SMP. *Jurnal Tuturan*, 11(1), 46. <https://doi.org/10.33603/jt.v11i1.6507>
- Harahap, H. T., Mushlihuiddin, rahmat and N. (2022). Pengembangan Bahan Ajar Berbasis Masalah Terhadap Kemampuan Berpikir Kreatif Matematis. *EduTech: Jurnal Ilmu Pendidikan Dan Ilmu Sosial*. <https://doi.org/10.30596/edutech.v7i2.7063>
- Hasibuan, M. H. D. (2021). Pengembangan Bahan Ajar Teks Eksplanasi Berbasis Ekologi Berbentuk Flip Book Untuk Siswa Kelas XI SMA Negeri 1 Padangsidempuan. Tesis. Pendidikan Bahasa Dan Sastra Indonesia.
- Jannah, D. R. N., & Atmojo, I. R. W. (2022). Media Digital dalam Memberdayakan Kemampuan Berpikir Kritis Abad 21 pada Pembelajaran IPA di Sekolah Dasar. *Jurnal Basicedu*, 6(1), 1064–1074. <https://doi.org/10.31004/basicedu.v6i1.2124>
- Kemendikbud. (2014). Nomor 160 Tahun 2014 tentang Pemberlakuan Kurikulum Tahun 2006 dan Kurikulum 2013 Pasal 4.
- Kuncahyono. (2018). PENGEMBANGAN E-MODUL (MODUL DIGITAL) DALAM PEMBELAJARAN TEMATIK DI SEKOLAH DASAR. *JMIE (Journal of Madrasah Ibtidaiyah Education)*, 2(2), 219. <https://doi.org/10.32934/jmie.v2i2.75>
- Asmayanti, A., Cahyani, I., & Idris, N. S. (2020). Model ADDIE untuk pengembangan bahan ajar menulis teks eksplanasi berbasis pengalaman. In *Seminar Internasional Riksa Bahasa* (Pp. 259-267).
- Kustianingsari, N., & Dewi, U. (2015). Pengembangan media komik digital pada mata pelajaran Bahasa Indonesia tema lingkungan sahabat kita materi teks cerita manusia dan lingkungan untuk siswa kelas V SDN Putat Jaya III/379 Surabaya. *Jurnal Mahasiswa Teknologi Pendidikan*, 6(2), 1-9.
- Mascita, D. E., & Rosmayati, A. (2018). PENGEMBANGAN BAHAN AJAR TEKS ANEKDOT BERBASIS KEARIFAN LOKAL UNTUK SISWA KELAS X SMA. *Jurnal Tuturan*, 7(1), 803. <https://doi.org/10.33603/jt.v7i1.1698>
- Nichols, J. (2013). 4 Essential of 21st Century Learning.
- Ridlo, S. (2020). Pentingnya Pendidikan Islam bagi Peserta Didik di Abad Ke-21. *S. CHOLASTICA: Jurnal Pendidikan Dan Kebudayaan*, 2(1), 18-27.
- Saroni, D. (2020). Prinsip-Prinsip Pembelajaran Abad 21.
- Yusi Kamhar, M., & Lestari, E. (2019). Pemanfaat Sosial Media Youtube Sebagai Media Pembelajaran Bahasa Indonesia DI Perguruan Tinggi. *Inteligensi : Jurnal Ilmu Pendidikan*, 1(2), 1–7. <https://doi.org/10.33366/ilg.v1i2.1356>.