# The Need Analysis of Digital Materials Based on Character Education in Elementary School

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**Abstract:** This study aims to explore the need for digital materials based on character education for elementary school. This research is qualitative research. Data were collected using observation, and interviews. The research participants were 28 students and 7 teachers of Indonesian Elementary Schools. Findings showed that the results of the needs analysis state that all teachers are interested in using integrated e-modules for character education. Character education that will be integrated with this material includes the characteristics of self-confidence, caring, and responsibility. Teachers can modify existing teaching materials into digital materials or e-modules based on character education. This digital material will arouse students' learning motivation, because it looks more attractive, and can be directly accessed with gadgets owned by students.

**Keywords:** Character education; Digital material; Elementary school

## 1. Introduction

The information age sometimes referred to 5.0 society era or digital era, has changed how we view the natural order of things. Our connection with information, knowledge, and education is evolving as a result of the widespread adoption of ICT in modern life. Education in the digital era is very fast, and advances in technology are not only enjoyed by adults, however elementary school students can also enjoy the results of current technological developments [1]. The emergence of many destructive cases in the context of nationality, for example, there are inter-ethnic sentiments, inter-ethnic disputes, drug cases, brawls between students, and even cases of bullying that show a lack of national character. Therefore, the formation of character from an early age is very necessary to foster a good national character culture and the main key to building the nation [2]. Characters need to be accustomed to instilling the value of life [3]. The Ministry of Education and Culture has fostered character values through character education programs. Character education instills character values into school members, including knowledge, awareness or willingness, and actions to apply these values to God, oneself, others, and the environment [4].

Based on the observation result in an Indonesian elementary school, the teacher stated that not many teaching materials were used to support digital learning; they still rely on textbooks as the main teaching materials for students. This is a weakness that ultimately causes a lack of learning motivation for students, where students are very skilled at operating gadgets but learning is still conventional. The teaching materials provided have not been able to provide a concrete picture of the learning given to students. The teacher tried to overcome this several times by making learning videos, but it was not optimal. The videos made by the teacher have not been fully able to attract the attention of students to learn because most of the learning videos made also present text in the video. Meanwhile, elementary school students are in the concrete operational stage [5], which requires an accurate picture of the material being studied. Therefore, teachers expect interesting digital materials that can help attract students' interest in learning and instill character in students.

Therefore, this study aims to explore the need for digital materials based on character education for elementary school. Hopefully, a digital material that can improve the quality of learning for elementary students is e-module. This

e-module aims to motivate students in learning because it looks more attractive and can be used in the classroom and independent learning. In addition, the insertion of text, images, and animations containing character education can be used to instill character in students while studying.

## 2. Literature Review

All types of materials used by teachers or instructors to carry out teaching and learning activities in the classroom are referred to as teaching materials [6]. Teaching materials are all types of materials used by teachers or instructors to carry out teaching and learning activities in the classroom, according to the development of educational science and technology [7]. Three steps make up the process of creating teaching materials: (1) conducting a needs analysis, which involves looking at the curriculum (KI, KD, indicators, subject matter, learning experience), learning resources (availability, suitability, convenience), teaching materials selection and determination, and (3) understanding the selection criteria for learning resources, which include both general (economical, practical, easy to obtain, and flexible) and specific criteria (motivating students in learning, supporting KBM, research, problem-solving, and presentations) [8]. The digital materials design based on character education in this study is based on non-printed teaching materials, therefore the products that result are digital modules that are developed as software. Students must install digital modules on their desktops, laptops, and Android-based smartphones in order to use it. The educational resource design in the form of digital modules is consistent with advancements made in the field of education and the contemporary digital era.

The purposeful development of excellent character based on fundamental principles that are beneficial to both people and society is known as character education [9] [10]. The goal of character education is to help kids develop into fully human beings who have character in all facets of their hearts, minds, bodies, tastes, and intentions [11]. The goal of character education is to foster the formation of children's developing concepts, moral principles, and character [12]. Character education, according to [13], is any attempt that may be done to influence pupils' character. The three essential components of character education are: (knowing the good), do good, and virtue [14].

## 3. Material & Methodology

### 3.1. Data

Data collection techniques using observations, and interviews. Data were collected using interviews via google forms. Semi-structured interviews with the participants were offered to them. These interviews are brief conversations. Interviews were conducted in a structured manner with interview guidelines that had been prepared previously [15]. The interview guide for teachers contains questions to gather information about (1) preparation before teaching, (2) what methods are used in thematic learning, (3) the teaching materials used, (4) thematic learning techniques to keep them conducive, (5) Knowledge about e-learning. -module, (6) interest in using e-modules, (7) understanding of character education, character values that need to be integrated with e-modules., and (8) the value of the dominant character to be inserted in the e-module. While the interview guide for students contains questions to explore information about students' interest in using e-modules.
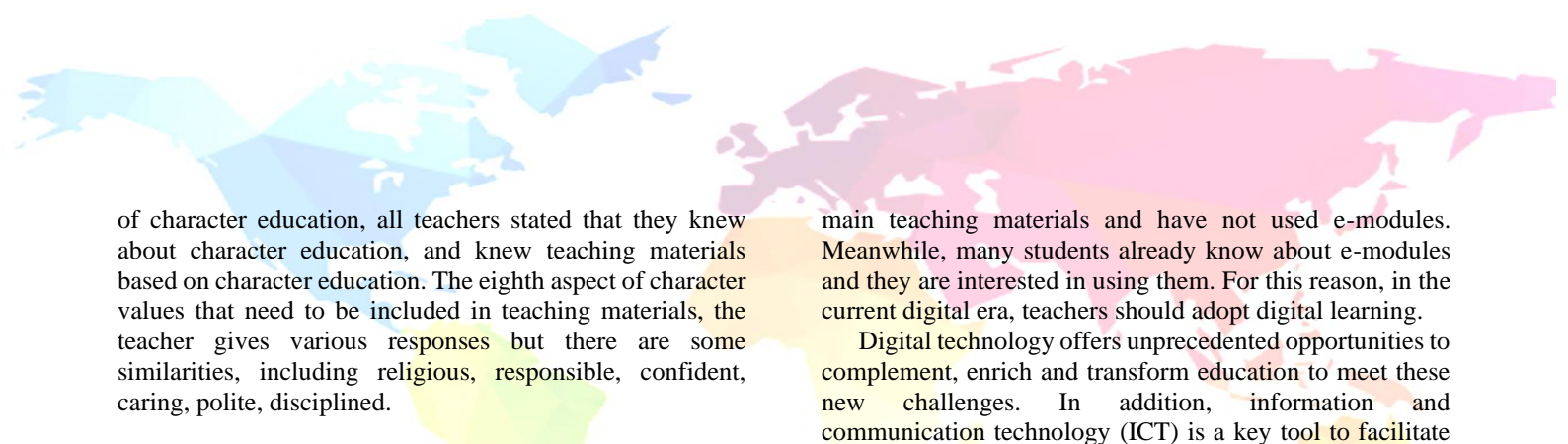
### 3.2. Method

This research used a qualitative research design. The research place is at SD Negeri Kemadang Tanjungsari Gunungkidul. The research participants were 28 students and 7 teachers of an Indonesian Elementary School. The teacher was chosen as a participant to get information about the thematic learning that has been carried out so far. Meanwhile, the students who were selected as participants were six-grade students that students already had gadget facilities, were accustomed to operating gadgets and were able to provide objective assessments.

## 4. Results and Discussion

### 4.1. Result

The need analysis technique included making field observations and interview. When the activity was performed, observations were made by the researchers utilizing the pre-made observation sheets. According to the findings of field observations at Indonesian elementary schools, the instructor had not optimized a number of learning support components, including the models and learning material used. Moreover, the researchers did a character-based e-module requirements analysis by interviewing instructors and students to learn how crucial the demand for teaching resources other than textbooks is in this scenario and what characters are necessary to include in teaching materials in the present digital era.

The interviews result with seven teachers and the presentation of the results of the interviews are represented by three generations of different ages adjusted to the observed aspects, namely the first aspect of lesson plans preparation where the responses of all teachers prepare lesson plans before teaching. The second aspect is the learning methods and techniques used, where all teachers use discussion, question and answer, and lecture methods, and four teachers add demonstration techniques. The third aspect is the learning materials and resources used, including: textbooks, self, friends, the environment, e-modules, and the internet. The fifth aspect of knowledge about teacher e-modules gave varied responses. Teacher A who is a 59-year-old senior teacher, gave the answer that she didn't know. Teacher B, who is 42 years old, gave an answer that she knew a little, and Teacher C, who was 25, gave a knowing response. Meanwhile, other respondents gave answers that they knew little and did not really understand. The sixth aspect of interest in using the e-model, all teachers gave an interesting response because it was to attract students' attention. The seventh aspect regarding knowledge

of character education, all teachers stated that they knew about character education, and knew teaching materials based on character education. The eighth aspect of character values that need to be included in teaching materials, the teacher gives various responses but there are some similarities, including religious, responsible, confident, caring, polite, disciplined.

The interviews results with 28 students in the sixth grade, basically each student gave almost the same answers to several questions. The first aspect about the teaching materials used so far, all students gave the same response, namely that there were no students who used teaching materials other than textbooks. Furthermore, nine students stated that there were difficulties with the material in the thematic books, while 19 students stated that there were no difficulties. The second aspect is interest in thematic learning, where 4 students responded not too interested, one student is interesting response and 23 students responded motivated/happy. The third aspect is about the teaching materials used by the teacher where 28 students answered the textbook. The fourth aspect is about the need for other teaching materials that are easier to learn and interesting, where 28 students stated that they needed it. The fifth aspect is about e-module knowledge, where one student gave a little response, two students said they didn't know, and 25 students said they knew. The sixth aspect of interest in using e-modules, all students responded like/interested.

## 4.2. Discussion

There are several ways that instructors might respond to the digital age. Not all educators are prepared to adjust to the digital age of learning. In general, educators are fully aware that they cannot resist the digital age. The digital world is here to stay; thus, teachers must inevitably accept digital learning. The digital age requires character education to incorporate digital learning [16]. Two aspects, namely (1) the competency factor and (2) the infrastructure factor, have an impact on how equipped instructors are for the digital era.

The level of teacher proficiency with digital learning still has to be raised. Teachers over the age of 50 are more likely to have weak digital competence. There were no digital resources like there are today when they first started teaching. It takes a lot of work to accept digital learning since they are not taught from the beginning to use digital tools. They are unfamiliar with modern technology, which is why this is. Due to their early exposure to digital tools as instructors, teachers in their 40s are still more amenable to adjusting to the rise of digital learning. Teachers in their 30s can manage digital learning with ease and efficiency.

This is in line with the needs analysis result in this study where all teachers are interested in adopting integrated e-modules for character education, according to the analysis of the demands for teaching materials in the form of e-modules made possible by these interviews. Also included will be character education, with a focus on self-assurance, responsibility, and caring. The needs for teaching materials in the form of e-modules through interviews with these students also show that teachers have used textbooks as the main teaching materials and have not used e-modules. Meanwhile, many students already know about e-modules and they are interested in using them. For this reason, in the current digital era, teachers should adopt digital learning.

Digital technology offers unprecedented opportunities to complement, enrich and transform education to meet these new challenges. In addition, information and communication technology (ICT) is a key tool to facilitate equitable and inclusive access to education, bridge learning differences, open new perspectives for teachers and their profession, improve the quality and meaning of learning, and improve education administration. Digital learning provides a great opportunity for success in character education. There are several opportunities in digital learning compared to traditional learning.

First, digital learning can reduce many broad geographical constraints. Students can now access videos or e-modules that present interesting material, and can be studied anywhere. A research report revealed that students who work in online settings are more motivated than those who work in traditional classroom settings [17]. Second, the presence of touch screen technology has enabled very young children to engage in technology-assisted teaching. Before the tablet, it was difficult for early graders to learn with educational software because they needed to use a mouse or keyboard. There are now hundreds of apps that can effectively expose children to early literacy and numeracy skills.

Digital character learning encourages and promotes the development of important 21st century skills for students such as communication and collaboration skills and enhances student achievement and motivation [18][19][20]. The results showed that about two thirds of the participating students indicated that communication with other students was an important part of their learning in digital learning programs [21]. Moreover, a research report revealed that students who work in online settings are more motivated than those who work in traditional classroom settings [22].

Even though the existing teaching materials have met a number of eligibility criteria for teaching materials, they still have not adequately integrated character education in them. The teacher just follows the lesson based on these books, so character education has not been going well. Therefore, along with what has been planned in the lesson plan with an insight into character education, teaching materials also need to be adjusted. The adjustment that is most likely to be made by the teacher is to modify the existing teaching materials into a digital teaching material/e-module in which character education is inserted. Digital teaching materials will arouse children's learning motivation, because they look more attractive, and can be directly accessed with their gadgets. The material in digital teaching materials prepared with instructions or assignments on character education can develop students' character.

## 5. Conclusion

This study can be concluded that all teachers and students are interested in using e-modules that are integrated with character education in learning activities based on the

analysis of the need for digital teaching materials based on character education through interviews with teachers and students of Indonesian elementary school. Self-assurance, compassion, and responsibility are the fundamental virtues of character education that will be incorporated into the online session.

The implementation of these digital teaching resources helps inspire students to learn since they are more visually appealing and easily accessible through student-owned technology. One of the biggest draws for students to study s look. Students' character can be developed by the content of digital instructional resources that have been provided with directions or tasks addressing character education. Additionally, using digital teaching resources, such as e-modules, is a way to deal with technology advancements in the globalization period, particularly in the modern educational system. To help students develop into students with excellent morals and morals in line with the aims of national education, character education is incorporated into e-modules. In digital era, character education is also a line of defense against negative influences.as the result, character education-based instructional materials can be implementation for elementary schools.

## Acknowledgement

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