Nggusu Waru-based Social Studies Electronic Book Model as the Innovation to Support Students' Character Building

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Abstrak

Kemajuan teknologi dan informasi di era digital, mempunyai peranan penting dalam dunia pendidikan. Termasuk penggunaan media dapat menunjang pembelajaran IPS di sekolah. Memanfaatkan komputer, laptop, gadget, dan sejenisnya sebagai media pembelajaran siswa. Pembelajaran dengan memanfaatkan media teknologi sangat diperlukan di era abad 21. Sebaliknya kecanggihan teknologi berdampak negatif terhadap karakter dan moral peserta didik. Penelitian ini bertujuan untuk merancang model buku elektronik IPS berbasis kearifan lokal Nggusu Waru sebagai pembentukan karakter siswa. Desain penelitian pada artikel ini menggunakan desain Research and Development pada tahap pengembangan dengan model yang dikembangkan oleh Borg & Gall. Dengan beberapa tahapan yaitu penelitian dan pengumpulan informasi, tahapan ini meliputi kegiatan studi literatur, observasi lapangan, dan Focus Group Discussion (FGD) untuk mengembangkan produk buku elektronik IPS, penelitian ini mengembangkan buku IPS berbasis kearifan lokal Nggusu Waru untuk siswa. pembentukan karakter melalui desain Penelitian dan Pengembangan. Hasil analisis pada pembahasan pengembangan e-book IPS dinyatakan layak digunakan sebagai media pembelajaran di sekolah berdasarkan hasil Focus Group Discussion dengan para ahli. Respon siswa juga menunjukkan respon positif terhadap adanya model e-book IPS berbasis kearifan lokal yang dapat bermanfaat dalam membangun karakter siswa.

Kata Kunci: Model Buku Elektronik, IPS, Kearifan Lokal Ngusu Waru, Pembentukan Karakter

Abstract

Advances in technology and information in the digital era, have an important role in the world of education. Including the use of media can support social studies learning in schools. Utilizing computers, laptops, gadgets, and the like as student learning media. Learning by utilizing technological media is needed in the era of the 21st century. On the contrary, technological sophistication negatively affects the character and morality of students. This study aims to design a social studies electronic book model based on local wisdom Nggusu Waru as student character building. The research design in this article uses Research and Development design at the development stage with a model developed by Borg & Gall. With several stages, namely research and information collection, this stage includes literature study activities, field observations, and Focus Group Discussion (FGD) to develop social science electronic book products, this research develops a social studies book based on local wisdom Nggusu Waru for student character building through Research and Development design. The results of the analysis in the discussion of the development of social studies e-books were declared suitable for use as learning media in schools based on the results of Focus Group Discussions with experts. Student responses also show a positive response to the existence of a social science e-book model based on local wisdom that can be useful in building student character.

Keywords: Electronic Book Model, Social Studies, Local Wisdom Nggusu Waru, Character-Building

1. INTRODUCTION

The world of education in the modern era is increasingly developing and as the main driver in advancing the field of education, one of which is adopting electronic books, the use of digital versions of electronic books or books often known as e-books has facilitated users with practical, innovative and fun tools for learning purposes (Ginzburg & Barak, 2023; Tang, 2021). According to previous study digital technology provides many benefits to shape

a good education system against today's global challenges (Schellinger et al., 2019). Advances in information technology have changed people's reading culture by replacing printed books with electronic books around the world. Indonesia, the United States, the United Kingdom, and Australia have experienced an increase in e-book adoption. The United States dominates the e-book market by 13 percent (Foluke O, 2019; Sulistyani et al., 2022). In the 21st century, Indonesia has advanced and innovated in the use of e-books through learning in schools to build character through education (Afandi et al., 2019; Suciati et al., 2023).

Electronic books embedded with multimedia features can expand the experience of reading books when used correctly. Based on the results of research conducted states that interactive electronic books are the best alternative that can contribute to increasing reading comprehension and reading interest in today's generation (Smeets & Bus, 2015). Therefore, technological advances with the sophistication of digital media have a positive and negative impact on students' social lives. The positive impact of the advancement of the technological era on students and teachers is that it is easier to access scientific information from various digital sources such as the internet and other social media. The apparent social reality, due to the misuse of digital technology hurts the social character of students with various cases of crime and criminality that occur including; gadget addiction, online gambling, brawls between students, liquor, drugs, free sex, pregnancy out of wedlock, stealing, disrespectful to parents or teachers, bullying cases, pubbing and not being able to respect each other between peers (peer groups) to have a low impact on student learning interest (Brandtzæg, 2016; Hooft Graafland, 2018; Tsoraya et al., 2023). According to previous study, the impact of digital abuse refers to useless and damaging access to the future of the younger generation, related to the gap in digital technology use caused by socioeconomic factors and lack of parental concern for their children (Calderón Gómez, 2019). Because the influence of the technology gap has an impact on the quality of our lives digital devices can also cause moral and future damage to students in educational, social, economic, and cultural fields (Corkin et al., 2022; Starkey et al., 2017).

This problem shows that character-building is far from moral values and norms. One of the causes of crime and social deviation is weak character building based on local wisdom values in the region both in the family, school, and community (Iswatiningsih, 2019; Marini et al., 2019; Putu et al., 2022). This is reinforced by the release of the Indonesian National Police recording 276,507 crimes and crimes in Indonesia, dominated by young people who are teenagers who are still in school throughout 2022 until entering early 2023. This number increased 7.3% compared to the previous year which was 257,743 cases. Thus, there is 1 crime every two minutes and two seconds. If calculated every hour, 31.6 crimes occur in the country. Thus, there needs to be a special formula for character development in the digital era based on local wisdom values as a basis for building good student character and *quality* education. The problem of misuse of information and technology that is easily accessible to students to influence their attitudes and behaviors is increasingly rife. Changes in ethical values and moral degradation in social life, due to a lack of awareness of local wisdom values, threaten the disintegration of the nation, and the weakening of national independence. Such polemics directly impact the progress of the world of education (Komalasari et al, 2021; Komalasari &; Rahmat, 2019; Marc Prensky, 2001).

Previous research explains that an electronic book model based on local wisdom that is integrated into learning activities is important to support student character building (Rahmasari & Kuswanto, 2023; Riyanto et al., 2020; Sulistyani et al., 2022). Electronic book media can facilitate learning activities by containing digital information and interesting features in the form of text, images, videos, and audio in the form of files that can be opened using laptops, mobile phones, and other electronic devices in the form of one file so that it

can support digitalization in the world of education (Maduku, 2017; Rozo & Real, 2019). According to previous study e-books have various advantages compared to printed book versions, including easier and more practical to access, no need to visit the library, young search topics, can be accessed anywhere and anytime, the appearance is more flexible and cheaper and saves space storage (Koh & & Herring, 2016). Therefore, the development of e-book media is important for students and teachers as educators in designing learning in schools, especially in social studies subjects in junior high school. So that it can attract the attention of students during the process of learning activities and support character-building in advancing the world of education (Berkowitz et al., 2020; Marini et al., 2021).

Based on the results of preliminary studies, the local government is very supportive in advancing education, in almost all schools, especially in Bima City. The government has distributed related information and communication technology (ICT) facilities and infrastructure such as computers, and laptops and have been dropped servers or connected to School of Information Technology (IT) devices and connected to Liquid Crystal Display (LCD) devices. According to the Ministry of Education, Culture, Research and Technology of the Republic of Indonesia, this is to accelerate the equitable distribution of standardization in the development of the use of technology and digitalization of education in various regions, both cities, and regencies throughout Indonesia (O'Connor & Michaels, 2019). With the advantages of today's digital world, it is very good for learning and participants will be happier with the display of e-books that are interactive, communicative, and varied, compared to the pattern of manuals that exist today is very different, because they are designed with less attractive image displays (Landoni & Hanlon, 2007; Wang., 2020).

According to previous study the essence of local culture has cultural values that characterize it and its strengths (Aricindy et al., 2023). Therefore, the existence of culture as a national identity needs to be preserved because society and culture are inseparable, and have strong ties with local values and every society must have its cultural advantages and distinctiveness. Culture is the result of the inventiveness of society and culture as a source of value and influence in behaviors. Education based on local wisdom, both in developing school cultural programs and through integration in subjects, is an example of education that aims so that students are not separated from society and its culture (Hidayati et al., 2020; Syamsi &; Tahar, 2021). More than local knowledge, in essence local wisdom is a cultural product consisting of customs, norms, rituals, ethics, beliefs, values, customs, and philosophies that become the culture of the local community. Explicitly, local wisdom consists of two types, namely material and non-material. Materials such as traditional clothing, handicrafts, and traditional houses. Meanwhile, while non-material, local wisdom can be interpreted as philosophical values (Muhammad et al., 2022; Uge et al., 2019). This indicates that some have relevance to social studies. Seefeld, Castle, and Falconer explain that the concept of social studies represents different cultures, values, ideas, and beliefs to educate the public, especially adolescents about values and attitudes. That is, local wisdom becomes a source of value to realize students as individuals who have good attitudes and behaviors' In addition, it can build student character around schools, families, and communities (Sulhan, 2018; Rasimin., 2023; Uge et al., 2019).

The excavation of local wisdom values as the basis of character education was in line with the recommendations of UNESCO (United Nations Educational, Scientific, and Cultural Organization). The extracting the value of local wisdom as a basis for strengthening character and education in general, will encourage the growth of mutual respect between ethnicities, tribes, nations, and religions so that diversity and tolerance must be recognized that culture and education are inseparable parts of both. Like two sides of a coin, both are a unity that is mutually relevant or supportive and reinforcing. Culture is the basis of educational

philosophy, while education is the main guardian of culture because the role of education shapes human character culture (Suprapto et al., 2021; Ugwoke & Omekwu, 2014).

The existence of an electronic book based on local wisdom "*Nggusu Waru*" as a model book in social studies learning activities is needed in building student character. This article aims to design an e-book model based on local wisdom "*Nggusu Waru*" in building student character, to avoid the impact of the influence of misuse of technology. The novelty of this research contributes to increasing students' knowledge in understanding the values of local wisdom of their culture as an interesting and innovative learning resource and can build the character of students' spirit of learning.

2. METHODS

The research design in this article was developed using Research and Development design at the development stage (Borg, W.R. & Gall, 2013). With several stages, namely research and information collection, this stage includes literature study activities, field observations, and Focus Group Discussion (FGD) as a basis for product development of social studies electronic books, planning, including the determination of products to be developed, development of initial forms of products, including initial development in the form of prototypes or social science e-book products and Initial field tests, that is, initial product field trial activities carried out on a limited scale.

Data collection at this stage is done through interviews, observation, and documentation. The data is analyzed to find some weaknesses and shortcomings. The implementation of the Focus Group Discussion (FGD) agenda was only held once to discuss designing an attractive and innovative social studies electronic book model based on local wisdom "*Nggusu Waru*" to support student character building. By inviting experts in their respective fields, including the initials "MH" as an expert in the field of educational technology, "RG" as an expert in the field of social studies materials, "DRM" as an expert in the field of culture and "SR" as a student representative as a user of electronic books. The purpose of implementing Focus Group Discussion (FGD) with expert is to support electronic book models that are by technological developments in building student character.

The explanation of participants of the Focus Group Discussion (FGD) agenda in the development of electronic books is show in Table 1.

Table 1. Participants Focus Group Discussion

No	Participants	FGD Results Description
1	MH. Specialists in the field of educational technology	The development of an increasingly modern technological era, the social studies electronic book model based on local wisdom "*Nggusu Waru*" is very supportive in building student character, and increasing students' understanding of local wisdom or cultural wealth. With various interesting features or the appearance of electronic book models so that they can attract the attention of students.
2	RG. Expert in the field of social studies materials	Overall, this social studies e-book model based on local wisdom is very worthy of learning by junior high school students in Bima City, because the presentation of the material contains local values that educate on aspects of moral education and student character building.
3	DRM. Cultural Experts	Indonesia, which is rich in cultural diversity, is a characteristic and differentiator from other countries, so this electronic book model is very good as a learning medium for

No	Participants	FGD Results Description
		students in understanding local wisdom "*Nggusu Waru*" as a guide in people's social life. So that it can support the development of student character in the family, school, and community environment.
4.	SR Students as social studies e-book users	I as a student representative am very happy if the social studies electronic book model based on local wisdom "*Nggusu Waru*" is applied in social studies learning in schools because it is designed with an innovative and attractive display according to technological advances.

3. RESULTS AND DISCUSSION

Results

The Unitary State of the Republic of Indonesia is a multicultural country and is known to be rich in local values owned by its people. Each region has heterogeneous local wisdom, this difference is caused by the challenges of social life with a variety of characters and different life needs. During the sultanate era, "*Nggusu Waru*" was the foundation and handle for the sultan in carrying out his duties as a leader for the people and his country. As a respected leader in his time in every policy-making, he always prioritizes the values of "*Nggusu Waru*" wisely and objectively. To provide exemplary, honest, trustful, religious, courageous, responsible, social care, empathy, and love for the people he leads. The following values of local wisdom "*Nggusu Waru*" as listed in Table 2.

Table 2. Local Wisdom Values

No	Local Wisdom of *Nggusu Waru*	
1	*Dou ma dei ro paja ilmu*	have comprehensive scientific insight
	Dou ma dahu di ndai ruma	fear of the One God
3	*Dou ma taho ruku ra rawi*	behave and behave well
4	*Dou ma taho ntanda ba dou londo ro maina*	good and respectable heredity
5	*Dou ma dodo tando tambari kontu, tengi angi labo dou toi*	prioritizing the aspirations of the people wherever they are and defending the small people
6	*Dou ma mbeca wombona*	a person is from a financial aspect
7	*Dou ma sabua nggahi labo rawi*	consistent with his words and deeds
8	*Dou ma disa kai ma poda, dahu kai ma dapoda*	dare for right and fear for being wrong

Based on the local wisdom value in Table 2 it can be clarified that the use of the social studies digital book model based on local wisdom in supporting student character building needs to be applied in social studies learning in junior high schools, in line with the increasingly modern and sophisticated times. Therefore, the electronic book model is needed by students today to support learning activities in schools, which are designed in an attractive, innovative, and communicative manner. So that students and teachers find it helpful to use technology easily as a support in the process of learner activities. So, the use of the social studies electronic book model based on local wisdom "*Nggusu Waru*" is more optimal in character building and has an impact on students' learning attitudes and interests, broadens their knowledge horizons, and easily accesses information technology related to learning topics through social studies electronic books to collaborate and solve problems.

Thus, students are educated by practicing the values of local wisdom "*Nggusu Waru*" and avoid negative activities. This is by the results of interviews with social studies subject teachers.

Based on the results of the interview, the use of the social studies electronic book model is very helpful for students and teachers in learning activities at school. So that negative student behavior such as bullying, brawling, pubbing, and other social problems can be minimized through sustainable student character building. Thus, character building from school age will have an impact on his success and success in the future. This is reinforced by the results of an interview with the education office representative of the local government of Bima City.

Based on the explanation of the interview results, the government strongly supports the application of an electronic book model based on local wisdom "*Nggusu Waru*" in supporting student character building. The following is a model of the structure of the social studies electronic book based on the local wisdom of *Nggusu Waru* to build the character of junior high school students in Bima City as illustrated in Figure 1.
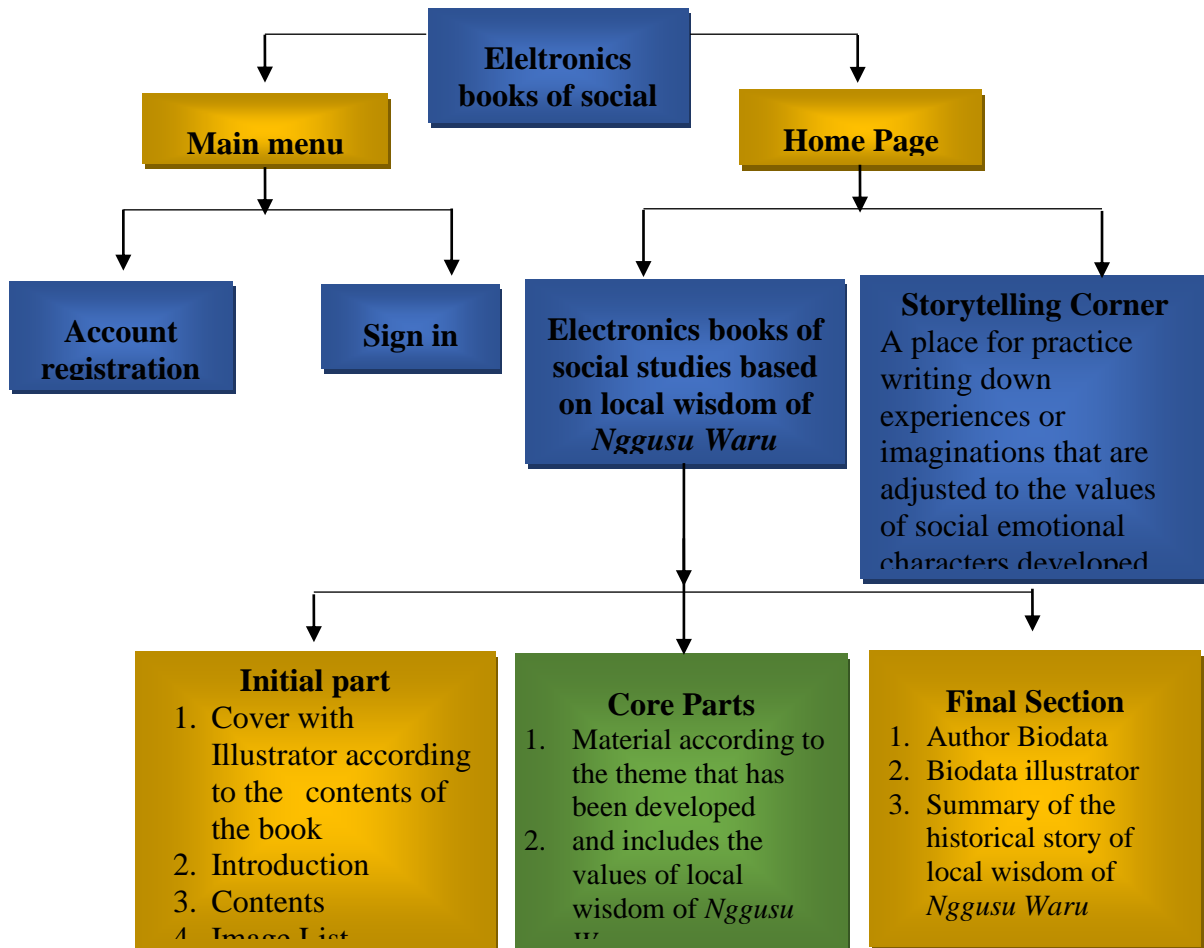

Figure 1. The Structure of The Social Studies Electronic Book Model Based on Local Wisdom *Nggusu Waru*

Based on Figure 1 the social studies E-book structure model based on local wisdom "*Nggusu Waru*", it provides an educational feel by having several parts that display interesting and communicative features according to student needs in character building. This electronic book model is in the form of an application consisting of a textbook and a

storytelling exercise corner. The companion textbook is divided into three parts, namely: 1) the beginning of the book consists of a cover with interesting illustrations, a preface, a table of contents, and a list of images. 2) the core part of this book consists of local wisdom material "*Nggusu Waru*" which is directly related to part or one of the learning outcomes and has relevance in supporting the learning objectives of social sciences in particular. The material presented is based on the theme that has been developed. At this stage, the text of the material is combined with illustrations that support the presentation of the theme. The material presented can develop the emotional, social, and spiritual skills of the reader. Emotional skills include the ability to control yourself, and maturity in action. Then the presentation can stimulate the reader to have social skills characterized by gentleness, empathy, honesty, concern for others, responsibility, and help. Then the presentation of material that develops spiritual skills includes developing readers' beliefs about the impression of the One and Only Creator, increasing faith and piety in carrying out religious life. So that it can encourage the formation of gentleness, empathy, emotional, caring, responsibility, and communication characteristics. 3) the end of the book consists of the author's biodata, illustrator, and a summary of the theme about the history of local wisdom of "*Nggusu Waru*" Thus, the modernly designed social studies electronic book model can have a positive impact on student character building.

   The application of the social studies electronic book model based on the local wisdom of *Nggusu Waru* can support the development of student character because it is equipped with interesting content and innovation. As explained in Table 3**.**

Table 3. Criteria for Social Studies Electronic Books for Student Character Building

No	Book Content	Learning (pedagogy)	Readability
1	"*Nggusu Waru*" local wisdom material is directly related to part or one of the learning outcomes and has a relationship in supporting social studies learning objectives in particular.	Based on the literary psychology approach that has messages contained in the psychology owned by the character. Using the Student Center Approach	Companion textbooks use good and correct language so that students can easily understand.
2	The material presented can develop the emotional, social, and spiritual skills of the reader.	Encourage the formation of moral feeling, moral knowing, and moral action, which includes self-awareness, social-emotional learning, social awareness, responsible decision making and self-management.	Using a clear concept.
3	The story is arranged based on the value of the characters to be developed	Increase student motivation and enthusiasm for learning	The material is presented using communicative language.
4	Material in the form of short stories or illustrated stories (comics)	The storytelling corner is a place for students to practice to share their experiences and imaginations related to the value of the character developed	The display of images is attractive and the content of the story and the value developed.
5	The book material develops a story about how to become a generation with character	Encourage students' understanding of their role as a generation that cares about the	The physical appearance of the book pays attention

No	Book Content	Learning (pedagogy)	Readability
	through the values of local wisdom of *Nggusu Waru*	local wisdom of their culture.	to: the cover; picture; and Illustration colors that match the content of the book

Based on the explanation of Table 3, the criteria for a good electronic book can display interactive and innovative media. To be able to please students as users of electronic books. So that it can make students feel at home and long in front of their gadgets to access social studies information and learning materials. Through the design of this electronic book model, it can reduce the misuse of technology that can damage the future of students. Thus, students are more focused on accessing and learning social studies materials through e-books that are designed with modern and "*Nggusu Waru*" values become social capital in building character both in the school, family, and community environments.

Local wisdom "*Nggusu Waru*" as a guide and teaching wisdom in the philosophical life of the people of Bima City. One of the historical site that is a building that has philosophical significance is the lare-lare or gate of the Bima sultanate palace. The following is a model of the cover figure of a social studies electronic book based on local wisdom "*Nggusu Waru*" which can give an artistic and aesthetic feel to this electronic book model. Social studies e-book cover model based on local wisdom *Nggusu Waru* is show in Figure 2.
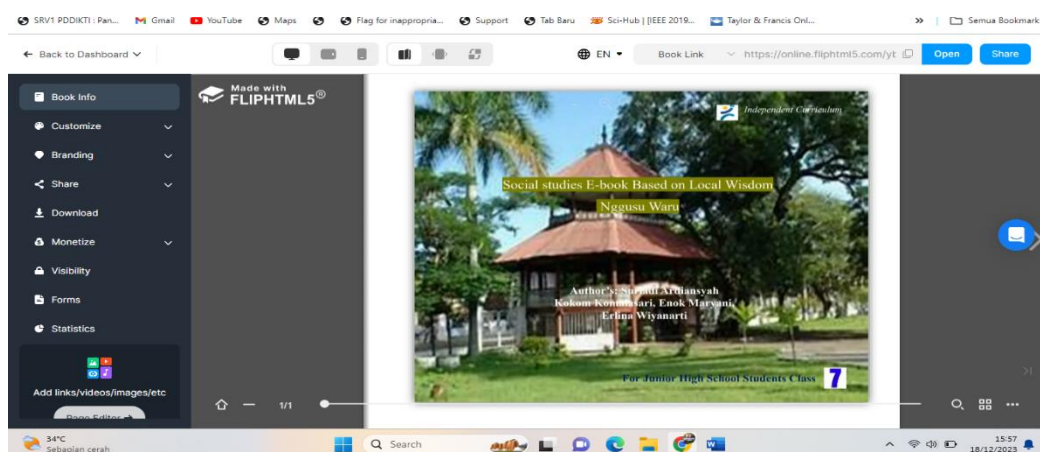

Figure 2. Social Studies e-book Cover Model Based on Local Wisdom *Nggusu Waru*

Based on Figure 2, the cover model image of the electronic book of social studies based on local wisdom, shows the philosophical meaning of the values of local wisdom "*Nggusu Waru*" in building student character. *Lare-lare* is the gate of the Bima sultanate palace with an octagonal building with a philosophical symbol of the values of local wisdom "*Nggusu Waru*" which serves as the entrance gate of the Bima palace. During the leadership of Sultan Muhammad Salahudin from 1915 to 1951 M. the gate of the palace (*lare-lare*) was used as a place to monitor guests who came to visit it and a place to watch enemies when in an emergency. Muhammad Salahuddin is the XIV sultan of Bima with his character known to be smart, brave, and religious. With his charismatic leadership style, he became a role model for students and generations in character building.

Discussion

This research focuses on designing an e-book based on *Nggusu Waru* local wisdom with the main aim of supporting student character formation. This section will discuss in more depth each aspect developed in the e-book model, as well as its implications in the context of education and student character formation. Relevance of *Nggusu Waru* Local Wisdom Material to Learning Outcomes Integration of *Nggusu Waru* local wisdom in learning material is a relevant strategic step to achieve comprehensive learning outcomes. This local wisdom contains many moral and ethical values that are very relevant to social learning objectives. The use of materials based on local wisdom can help students understand their own cultural context, which is often not reached by conventional learning materials (Komalasari & Saripudin, 2017; Şeker, 2023).

By understanding local wisdom, students not only learn academic material but also gain knowledge about the history, traditions and values that exist in their community. This is important in supporting the formation of self-identity and a sense of pride in local culture, which in turn can increase student motivation and involvement in the educational process. The material in this e-book is designed to develop students' emotional, social and spiritual skills. These three aspects are very important in character formation (Lear & Pritt, 2021; Ratna & Mandyara, 2023). Emotional skills include the ability to manage emotions, empathy, and other emotional intelligence. Through stories that contain emotional values, students can learn to identify and manage their own emotions and understand the feelings of others.

Social skills include the ability to interact and cooperate with other people. Values such as mutual cooperation and respect contained in the local wisdom of *Nggusu Waru* can help students develop these skills. Students are taught to work in teams, respect differences, and contribute positively to their communities. Spiritual skills, on the other hand, include the development of deep moral and ethical values. The stories in this e-book often contain strong moral messages, which help students understand the concepts of goodness, justice and responsibility. This is very important in forming individuals of good character and integrity.

The stories in this e-book are compiled based on the values contained in the local wisdom of *Nggusu Waru*. Values such as honesty, hard work, and respect are displayed explicitly in the story narrative. This approach ensures that students not only read the story but also internalize its values. A story-based approach is very effective in character education because stories have the power to touch students' emotions and thoughts. Through stories, students can see concrete examples of how these values are applied in real situations. This makes it easier for students to identify with the characters in the story and apply those values to their own lives (Lestari & Astuti, 2023; Rasmawan, 2020; Rustaman & Putra, 2022)

The aim of using a short story or comic format is to attract students' interest and make the learning process more enjoyable. Visualization through pictures and comics helps students understand the story better and makes learning more interactive. This approach is very effective, especially for students who may have difficulty understanding long written texts (Adiyawati & Nuroh, 2023; Sulistio & Qobar, 2020). In addition, this format also allows conveying complex moral messages in a simple and easy to understand way. Pictures and illustrations in comics can express emotions and situations in a way that is more direct and easy for students to digest.

This e-book not only presents stories, but also develops narratives about how to become students with character in accordance with the values of *Nggusu Waru* local wisdom. Each story in this e-book is designed to provide concrete examples of the application of character values in everyday life. These stories cover everyday situations faced by students, such as interacting with friends, facing challenges, and making difficult decisions (Aricindy et al., 2023; Radovanović et al., 2015). Through these stories, students are taught to apply

values such as honesty, responsibility and respect in real action. This is critical in helping students develop critical thinking skills and make ethical decisions.

Using e-books based on local wisdom has several significant advantages. First, this e-book supports learning that is more inclusive and relevant to students' cultural context. Second, these e-books help fill students' time with productive and educational activities, which is especially important in today's digital era where students are often exposed to non-educational content. Third, this e-book promotes continuous learning. Because the material can be accessed anytime and anywhere, students can learn at their own pace. This is critical in supporting independent, student-based learning.

Even though it has many advantages, the use of e-books based on local wisdom also faces several challenges. One of the main challenges is the lack of access to technology in some areas, which can hinder the distribution and use of these e-books. Therefore, efforts are needed to increase access to technology and infrastructure in underserved areas. In addition, ongoing evaluation needs to be carried out to ensure that this e-book is effective in achieving learning goals and character building. Further research is also needed to develop richer and more varied materials, as well as to adapt this e-book to various cultural and educational contexts.

4. CONCLUSION

This study confirms that the use of the e-book model based on local wisdom "*Nggusu Waru*" can reduce the negative impact of misuse of technology. Therefore, digital books are needed by students today to support learning activities in schools, e-book models are designed according to student characters through interactive and fun feature displays. The selection of interesting e-book covers shows the philosophical values of local wisdom "*Nggusu Waru*". So, by looking at the cover, students or readers are educated and immediately appreciate and practice the values of local wisdom "*Nggusu Waru*" that need to be guided. Thus, digital book models like this are very important in advancing the world of education in the 21st century, including for students, teachers and education observers in supporting social studies learning activities in schools. The existence of a social studies e-book model based on local wisdom can be useful in building student character in Bima City.

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