

JAVANESE CULTURE-BASED DIGITAL BOOK FOR FOREIGN SPEAKERS

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Abstract

Digital textbooks are learning tools that support distance learning needs, especially Indonesian for foreign speakers. It is important to develop digital textbooks based on Javanese culture as a vehicle for introducing Javanese culture as well as improving Indonesian language skills. In order to answer the formulation of the problem, research, design, and development of compatible, valid, and reliable digital textbooks were carried out. The effectiveness of digital textbooks is analyzed through the analysis of accessibility, media quality, legibility, easy to understand, cultural representation, clarity, ease of use, and navigation. The results of the assessment are used as the basis for product improvement so that it can be applied more widely in improving Indonesian language proficiency for foreign speakers. In general, product development is divided into (1) development of Indonesian language teaching materials based on Javanese culture, and (2) development of android-based textbooks, starting from making flowcharts, story boards, and developing multimedia based on Javanese culture. The topic of Javanese culture was well presented and was able to increase enthusiasm for learning Indonesian for foreign speakers. Final product evaluation to see the usability of digital textbooks, including functionality, reliability, usability, efficiency, maintainability, and protability which showed very significant results.

Keywords: Digital Textbooks, BIPA, Javanese Culture, Local Wisdom, Cultural Integration.

INTRODUCTION

Indonesia as a multicultural country has 16,771 islands and 718 regional languages spread across 34 provinces (Ministry of Maritime Affairs and Fisheries, Ministry of Education and Culture) (Sadhono et al., 2024). In line with Indonesia's diverse geographical location, various forms of culture have also developed from the history of Indonesia's ancestors. This is because culture is not only born from a common view, but social interaction in society also creates a diverse culture according to its goals and characteristics. Culture needs to be introduced to the wider world, namely as a form of the existence of a country and introduce the variety of wealth owned by a country.

The introduction of a positive image of Indonesian culture in the international world can be done through the dissemination of the use of the Indonesian language to other nations, both in Indonesia and in other countries (Susanto et al., 2024). This is based on the fact that the ability to understand and communicate in Indonesian will make it easier for foreigners to adapt to the culture and environment of Indonesian society so that they can get to know Indonesian culture well in the eyes of the public (Yulandari et al., 2024). Therefore, before reaching the use of academic language, a language speaker needs to learn language as the foundation of communication. With superior communication skills, a person is able to understand the stimulus received and translate the stimulus according to the intent and purpose of the speaker.

One of the goals of foreign students coming to Indonesia is a cultural mission, namely introducing the culture of their country and getting to know Indonesian culture to be introduced to their country (Saddhono et al., 2023; Saputra et al., 2024). Culture that is born from human interaction in the environment in Indonesia is certainly influenced by many factors (Rohmadi et al., 2023). Through good communication, a culture can be conveyed in a language that is easily accepted and able to show the advantages and beauty of that culture. Language as part of culture can be a vehicle for thinking, interacting, and exploring the meaning of parts of a culture (Saputra et al., 2023).

One form of implementation of the BIPA program is the realization of the Darmasiswa program (Saddhono et al., 2023). This program provides scholarships for foreign students who come from countries that have diplomatic relations to study the Indonesian language, arts and culture (Saddhono, 2017). Based on the distribution of the number of foreign speakers in Indonesia, Java Island occupies the top position, supported by the large number of universities implementing BIPA (Indonesian language for foreign speakers). In line with this opinion, Javanese culture as the main product of community communication has a high enough urgency to be studied by foreign students. In addition, strategic locations such as culinary centers, tourist attractions, economic centers, and other sectors will be more easily accessible by better recognizing the culture of the surrounding community.

As a symbol of social society, language occupies an important role in communication, namely as a distinctive identity of a language community (Kusumaningsih et al., 2024). Therefore, language is also a unique communication symbol for native speakers (Zyoud, 2016). On the other hand, for foreign speakers the language must have different characteristics so that it can be easily mastered. Learning a foreign language requires a high effort, especially learning a foreign language for students. Language acquisition affects the speed of learning a language, therefore, the characteristics of a language must be highlighted through a simple and easy-to-understand presentation (Saricoban, 2012). Every language learning process requires steady, consistent, and continuous learning time so that the learning process is fun and more contextual.

In the classroom, language learning will be more meaningful if the lecturer adds a unique and memorable stimulus (Mukhibun & Saddhono, 2023). The stimulus given by the lecturer is not just a game that makes students challenged, but every active learning process needs intervention from the lecturer so that the whole learning process is more meaningful. Language as a medium of thought, ultimately develops according to the needs of its users. As a manifestation of the existence of language, the media also develops in accordance with the development of language which is followed by the mindset of the wider community (Memet Sudaryanto, Mardapi and Hadi, 2019a). Not only that, the discourse of thinking in language also develops, namely the choice of context, topic, plot, setting, and the author's point of view in teaching a language.

The use of teaching materials that facilitate learning is a new challenge during the pandemic in Indonesia (Saputra & Saddhono, 2021). Not only that, most learning requires an interactive process so that teaching materials can be accepted more easily and fun. Teachers need to analyze and develop appropriate teaching materials in order to find the most appropriate formulation according to the needs, conditions, and forms of teaching materials to be conveyed to foreign students (Alqahtani, 2015). The

various goals of foreign students coming to Indonesia ultimately affect the choice of words, the use of language contexts, and the purpose of choosing the discourse.

In order to learn a language, it is important to internalize culture in the forms of learning activities, steps of learning strategies, plans prepared by teachers, and routines used by students to facilitate the achievement, storage, recall, and use of information about a language. A good learning device is certainly able to facilitate language learning, especially for foreign speakers to achieve its goals. Each of these goals is expected to be organized through technology that helps the learning process to be active, interactive, and interesting. Not only learning the language, but the role of good teaching materials is to be able to provide comfort and high motivation to learn (Fitriani et al., 2020). Therefore, it is important to package teaching materials that (1) make meaningful connections; (2) doing significant work; (3) self-regulated learning; (4) collaborating; (5) critical and creative; (6) nurturing the individual; (7) reaching high standards; (8) using authentic assessment (Shakespeare and Jakobovits, 1971). BIPA teaching materials that are developed certainly require content, presentation, and language that is easy to understand. In addition, interesting learning can be developed from interesting teaching materials as well. Through interesting teaching materials, language learning can be delivered easily, practically, and memorable.

The concept of Indonesian for foreign speakers is different from the process of language acquisition (Hastuti et al., 2019). Specifically regarding the acquisition of a second language (second language acquisition), which is known as attitude and aptitude. Both are obtained by second language learners as an adaptive form of communicating both orally and in writing (Richards, 2013). As a product of crocodiles, language is identified based on how the learner masters the language. Attitude is known in general as learning a language but it is not realized because speakers will get information and master it because of daily habits and the acquisition is identical to listening and reading. Attitude is generally influenced by a person's support system, an internal desire to learn language intensively and to be more communicative directly or indirectly, will increase a more extensive understanding, as well as motivation to be able to practice Indonesian as a second language according to the learner's needs.

Aptitude is the acquisition of a second language carried out by the learner consciously with an indication of knowing the intent and purpose of the learning process. Some important indicators that must be mastered by learners are the form of language, adherence to rules/rules, and a general understanding of the language process. Learners on the aptitude dimension are generally more proficient (both written and verbal: communication). For example, a grammar test (structure test), writing (writing test), reading (reading test), or it could be in the form of a proficiency test (Kim and Gilman, 2008). Three dimensions/components of measuring the understanding of language methods in aptitude which are generally used are (a) phonetic coding ability; (b) grammatical sensitivity, and (c) inductive ability. In addition, there are three components of aptitude, namely, (a) verbal ability (b) motivation; (c) the ability to listen. The two opinions above are related to the use of the assumption that language learners have the will to know the rules and use Indonesian as a communication language to be more communicative.

Language material as a medium of communication in society needs to be selected and sorted according to the needs of the learner. In general, an accepted language has several criteria that are considered to support its use for foreign speakers, namely

language features that (a) have a high frequency of use and acceptance, (b) are widely used, (c) are not too complex to learn, and (d) gradually shifts towards features that are less used, more narrowly used, and more complex variants.

Javanese culture has a very broad scope. This refers to the fact that the owners of Javanese culture are scattered with various kinds. In addition, the form and characteristics of Javanese culture also have a uniqueness that seems difficult to teach and learn. Therefore, in choosing Javanese culture as teaching material, several considerations must be emphasized, among others, that the teaching material must (a) reflect the actual speech of the target language speaker in an authentic communicative situation, (b) be in accordance with the idealized language use by native speakers, (c) in accordance with the expectations of native speakers and foreign students regarding the type of language behavior that suits the needs of foreign students, and (d) taking into account process and learning factors.

Of course, Javanese culture can be conveyed easily through the right stimulus. Language becomes an interesting study if the selected material meets the aspects of (a) reflecting the actual speech of the target language speaker in an authentic communicative situation, (b) in accordance with the idealized use of language by native speakers, (c) in accordance with the expectations of native speakers and foreign students. relating to the type of language behavior according to the needs of foreign students, and (d) taking into account process and learning factors. Packaging of language materials refers to aspects of language as a coherent and integrative skill. Language has an integrative characteristic, namely that each skill cannot stand alone. Language users must hone receptive skills to improve their productive skills. Weak receptive skills result in weak productive skills, and vice versa. As a result of the good learning process can be seen from proficient in productive skills. Writing skills as the end of language competence are ultimately considered the most complex and most difficult skills.

This research develops digital books to introduce and teach local culture, especially Javanese culture, for foreign speakers. Therefore, its development is carried out through the android system which makes it easy for users to interact anywhere and anytime. Technological developments provide a wider and more accessible range of learning. The development of mobile-learning has also become more desirable, especially as digital-based teaching materials which are currently favored by the education community in Indonesia. Mobile-learning refers to handheld and mobile technology information devices such as PDAs (personal digital assistants), cellular phones, laptops, tablets, and so on. Mobile learning can make it easier for users to access learning content and take breaks according to the needs of the learner.

METHOD

This study uses a research and development approach through qualitative and quantitative analysis. The qualitative approach is carried out through the development of culture-based digital textbooks through the android system using eclipse software. The instrument developed for qualitative research is an interview guide with BIPA lecturers and a feasibility study of digital-based books before being used for foreign students. The results of the qualitative analysis were validated by triangulation of theories and data sources. The development flow is carried out through a 4-D model with stages (a) pre-research, (b) software requirements, (c) analysis and design, (d)

product development, and (e) implementation and testing (Boton, Kubicki and Halin, 2015). While quantitative analysis was carried out in the initial research to examine the need for textbooks and to test students' understanding in using the digital textbooks.

Table 1: The Method of Study

Media Observation	as a preliminary study, it is used to examine various existing digital books and is used to determine the urgency of research and content analysis related to parts of digital textbooks that need to be developed further. This study was also conducted to analyze the multimedia that needs to be studied in the book: (1) the extent to which multimedia should be facilitated in books, (2) the variety of media that can be developed, and (3) the quality of the media currently being used. Based on observations and comparisons of similar existing objects, this digital book is done with dimensions of 1280x800 pixels and a resolution of 72 dpi on a smartphone that is recommended to have a minimum Android 8.0 Oreo operating system.
BIPA Teacher Interview	Pengajar BIPA sebagai fasilitator yang akan menggunakan buku ajar diharapkan mampu menjelaskan (1) kelemahan buku ajar digital yang saat ini ada di lapangan, (2) kelebihan buku ajar digital yang saat ini digunakan, (3) kebutuhan mendesak pengajar, (4) kebutuhan bagi mahasiswa BIPA, dan (5) kesan pengajar BIPA terkait pengembangan buku ajar digital berbasis budaya jawa.
FGD	Implementation of FGD after the development of media, content, and flowchat from digital textbooks so that the points that will be developed in digital textbooks can later be more useful and meet the expected validation. In the FGD, (1) BIPA teachers, (2) BIPA students, (3) media experts, (4) linguists, and (5) cultural experts will be invited.
User Test	After all parts of the BIPA digital textbook based on Javanese culture were tested, the digital textbook features and responses to the user interface used in the book were tested.

In order to produce quality digital textbooks, an analytical instrument with a Guttman scale was developed that contains quality standards for digital textbooks, so media, language, and display validation from the user's perspective is carried out. The final evaluation of the use of digital textbooks is carried out on the aspects of (a) functionality, (b) reliability, (c) usability, (d) efficiency, (e) maintainability, and (f) profitability. Making digital book applications is made through writing media designs (storyboards), determining materials, compiling questions and answers, and collecting backgrounds, fonts, pictures, and buttons used in Android-based digital books. Analysis of software and hardware requirements development with specifications of Eclipse Juno (Integrated Development Environment), Java Development Kit, Android Software Development Kit, and Notepad++ as application developer.

RESULTS AND DISCUSSION

The corona pandemic forces every party to immediately digitize every learning component so that it can be used widely. One component of self-study that is important to be developed immediately is textbooks. Learning can certainly run well if every component of learning can be accessed anywhere and anytime.

One of the lessons affected by the corona is learning Indonesian for foreign speakers. Many teachers facilitate virtual learning by developing interesting learning methods and media, but not a few need fun textbooks. Textbooks for foreign speakers are an urgent need because BIPA learning that is currently developing leads to distance

learning. In order to answer the problem formulation regarding the importance of digital textbooks, a flow chart is made below

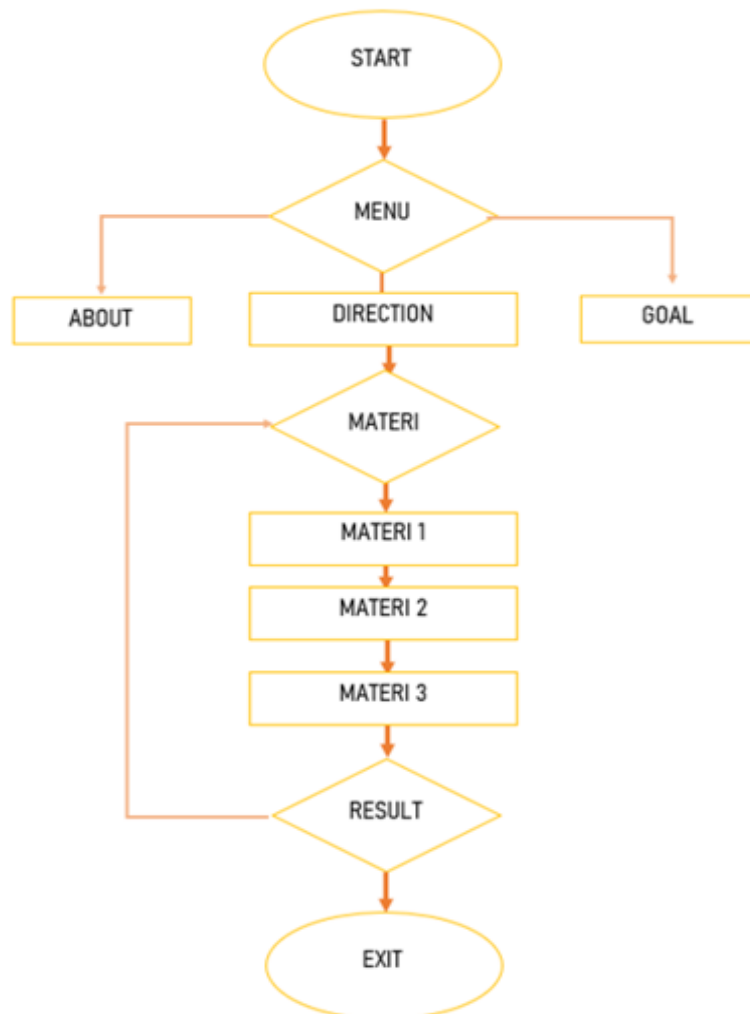


Fig 1: Java Culture-Based Digital Textbook Development Flow Chart

The flowchart developed above serves to clearly describe a workflow and a frame of reference for decision making. The flowchart above is a flowchart that shows the login system to a Java-based digital textbook. The [start] and [end] features are represented by a terminal shape that resembles an oval that represents the start and end of a program.

1. Results

The development of digital textbooks begins with the development of story boards to be disseminated to experts. Several inputs were given regarding visibility and ease of access in developing it into a digital textbook.

Story board is a sketch of pictures arranged in sequence that is used to develop digital textbooks. Making story boards makes it easier to convey ideas into a digital textbook flow which includes pages in the book such as loading pages, welcome screens, and other pages.

Table 2: The Development of Story Boards

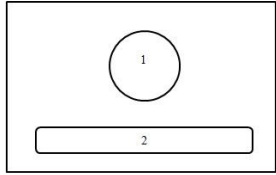
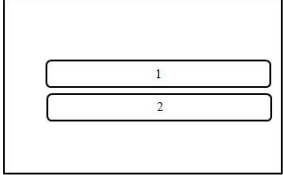
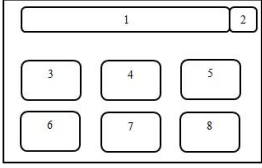
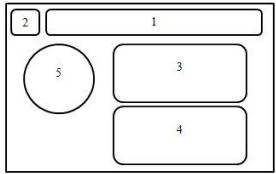
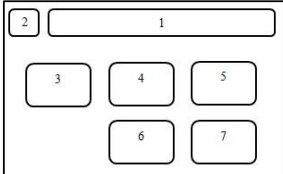
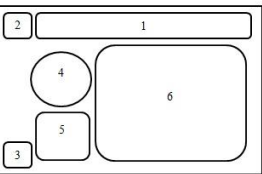
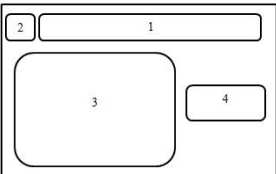
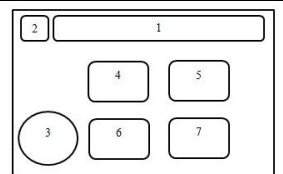
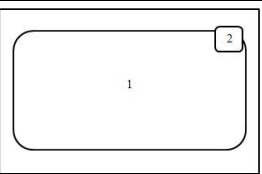
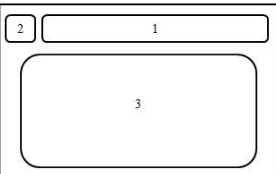
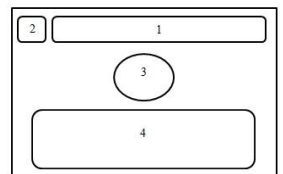
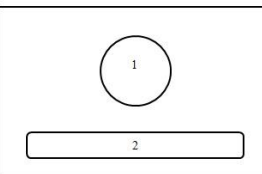
 <p>Loading Pages</p>	 <p>Welcome Screen Page</p>	 <p>Main page</p>
 <p>Competency Page</p>	 <p>Material page</p>	 <p>Submaterial Page</p>
 <p>Test Page</p>	 <p>All Questions page</p>	 <p>Discussion Page</p>
 <p>Help Page</p>	 <p>About Page</p>	 <p>End Page</p>

Fig 2: Storyboard

The storyboard above is expected to be able to (1) organize the shooting process, (2) make it easier to create and understand storylines, (3) find out mistakes in the early part of program development. Furthermore, all components that have been prepared at the design stage are then assembled into a single unit using the Juno version of Eclipse software. Components are assembled into a single media unit according to the storyboard that has been made previously. The first step is to create a simple loading screen with a combined image.



Fig 3: Main Page View



Fig 4: Study Menu Display

The loading screen is 5 seconds long. After the loading screen, a welcome screen will appear with the name of the application, namely BIPA Digital Book and the tagline "Yuk, Learn BIPA". At the bottom right there is a command to touch the screen and go to the main menu of the application





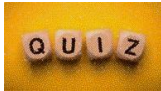
Fig 5: Multimedia Page Display





Fig 6: Study Menu Display

In the main menu of the Accounting Digital Pocket Book application, there are six menus, and each has a different function. The six menus are (1) Competence; (2) Material; (3) Exercise; (4) Quiz; (5) Assistance; and (6) About.

Table 3: The Main Menu of The Accounting Digital Pocket Book Application

<p>...atau sebagai media komunikasi, melalui perantara. Secara umum, yang dianggap sebagai perantara adalah media komunikasi dan keberfungsian. atau terdapat komunikasi yang di sampaikan, lebih sering perantara yang lebih banyak. atau terdapat komunikasi yang di sampaikan, lebih sering perantara yang lebih banyak.</p> <p>Skill</p>	<p>The success of a communication process depends on the encoding and decoding process. The encoding process is the sender of the active message choosing the message to be conveyed, formulating it in the form of symbols in the form of sound / writing, while the decoding process is the recipient of the active message translating symbols in the form of sound / writing into meaning so that the message can be received in its entirety.</p>
 <p>Material</p>	<p>A set of materials that are systematically arranged so as to create an environment or atmosphere that allows students to learn. Teaching materials can at least be grouped into four, namely printed materials, listening teaching materials, hearing teaching materials, and interactive teaching materials. Teaching materials aim to help students learn something, provide various types of teaching material choices, make it easier for teachers to carry out learning, and make learning activities more interesting.</p>
 <p>exercise</p>	<p>Exercise is a menu provided to hone language skills: listening, reading, and writing. In listening skills, digital books are equipped with audio and video features which are learning resources for foreign speakers. In addition, digital textbooks also provide readings consisting of various discourses according to the material topics that have been provided so that reading skills can be continuously honed. As an exercise in writing skills, digital textbooks also have facilities for responding to audio/video that is listened to or text that is read.</p> <p>Foreign speakers can access answers from the quizzes provided so that the results can be used by teachers to improve the learning process carried out by students. That way, the process of learning the language of Javanese culture can be integrated according to the material that has been studied by students.</p>
 <p>Quiz</p>	<p>First, this quiz method will indirectly encourage students to study independently outside the classroom. This method also serves as a review material for lecture materials that were previously delivered. This method can be used by lecturers as a component of assessment to students. Not only that, lecturers can also take advantage of the scores from each quiz conducted to help students whose final grades are not satisfactory. make it easier for students to understand various lecture</p>

	materials that have previously been delivered in class. This is in line because students will be encouraged to study the previous materials as material for facing quizzes that will be given by the lecturer in class.
 Help	In this feature, students/users can access tutorials and help in Indonesian text containing explanations for steps that are not understood. In the help feature, foreign speakers can ask about certain features or how to run the program. This feature provides frequently asked questions (FAQ) so that foreign speakers can understand each required feature before using the book in more detail.
 About	This feature provides all information related to software development, the drafting team, book identities, references and other information that supports the publication of digital textbooks based on Javanese culture.

At the top right of the main menu there is an X icon to be used if you want to exit the application. The first menu is the Competence menu. In this section, if selected, the Competence page will be divided into 2 columns, namely the competencies to be achieved by students and the objectives of learning Indonesian for foreign speakers. After the program is developed and operationalized, digital textbooks are used in Indonesian language classes for foreign speakers.

Table 4: Result of The Assessment

	Cycle 1	Cycle 2	Cycle 3
Accessibility	60	78	88
Media quality	62	76	80
Legibility	80	72	90
Easy to understand	80	74	92
Cultural representation	72	78	80
Clarity	76	80	86
Ease of use	62	80	88
Navigation	66	80	84

Based on the assessment table, several aspects assessed from the use of digital books for foreign speakers show the system improvements made by the development team. Aspects measured include accessibility, media quality, legability, easy to understand, cultural representation, clarity, ease of use, and navigation. Based on the results of the analysis, it shows that digital books are able to show comfort for users, especially for foreign speakers. Accessibility assessment refers to the experience of using digital textbooks based on Javanese culture from the user's perspective and finding usability issues that may have been overlooked. Accessibility testing can reveal opportunities to make the digital textbook more reliable and versatile for all users, especially for foreign speakers who will learn Indonesian.

Media quality refers to the characteristics of the media used, namely (1) having more than one convergent media, (2) being interactive: having the ability to accommodate the wishes of its users, and (3) the multimedia used providing convenience and completeness of content so that users can use it without guidance. others. The dimensions of a vector image can usually be changed without compromising the quality of the image. This makes it ideal for creating graphics in the user interface of the developed digital textbook. The use of media is expected to be able to support the readability of the text that will be studied by foreign speakers. Readability is used to test digital textbooks based on Javanese culture. Readability is a measure of whether

or not a reading is appropriate for certain readers in terms of the level of difficulty or ease of discourse.

Measurement of readability shows that digital textbooks based on teaching culture have a discourse that can be understood according to the character and language acquisition of foreign speakers. That way, foreign speakers can independently study various contexts developed through audiovisual materials and textual discourse in digital textbooks. That way, cultural representations that are used as the basis for discourse from books can be represented and show the richness of Javanese culture that will be studied by foreign speakers. Another accessibility, through user experiences measured by users, found that the clarity of the use of textbooks, navigation selection resulted in an assessment that showed the ease of use of textbooks which continued to increase significantly.

In addition, several aspects were tested to see the usability of digital textbooks, including functionality, reliability, usability, efficiency, maintainability, and portability. The assessment of digital textbook products by looking at these 6 aspects can be concluded that the reliability aspect gets the highest score while the maintainability aspect gets the lowest rating compared to other aspects. In general, the results of the final evaluation can be seen in the table below.

Table 4: Result of The Final Evaluation

Evaluation Aspect	score
functionality	88
reliability	90
usability	90
efficiency	84
maintainability	80
portability	86

Functionality is the ability of digital textbooks based on Javanese culture to provide functions according to user needs and satisfy foreign speakers. Reliability is the ability of the software to maintain a certain level of performance from digital textbooks based on Javanese culture. Usability is the ability of digital textbooks based on Javanese culture to be understood, studied, used, and interesting for users. Efficiency is the ability of digital textbooks based on Javanese culture to provide appropriate performance and relative to the number of resources used at that time. Maintainability is the ability of Java-based digital textbooks to be modified. Modification includes correction, improvement or adaptation to changes in the environment, requirements, and functional specifications. Portability is the ability of software to be transferred from one environment to another or the ability of digital textbooks based on Javanese culture to adapt when used in certain areas.

2. Discussion

Media and educational technology from the Indonesian language perspective can be defined as all learning tools to facilitate interaction in learning such as prints, graphics, animations, audio and audio visuals that visualize good and correct language communication. Multimedia learning technology combines all print, graphic, animation, audio and audio visual qualities and technology is defined as an object or process of human origin that can be used to deliver media and multimedia. In this sense, technology encompasses phenomena as diverse as books, films, television, and the internet. In BIPA learning, media is a symbol system used by teachers and foreign

speakers to represent culture in the form of discourse that allows foreign speakers to share cultural representations in Java with foreign speakers.

The current Indonesian language learning curriculum for foreign speakers (BIPA) has changed the conventional learning paradigm that has been implemented so far. Learning that was originally isolated has turned into networked learning. Networked learning has also evolved from being asynchronous to synchronous. Synchronous learning is learning where foreign lecturers and students abroad can interact at the same time through information technology devices. The use of Indonesian digital textbooks for foreign speakers as a forum for learning Javanese culture is an alternative solution for introducing Javanese culture to the international community.

Based on the results of the analysis from the user's perspective, digital textbooks based on Javanese culture have high performance even though they are used by many users. Multimedia in the form of video and audio that is presented is able to work optimally. Every button and navigation is able to provide a pleasant learning experience. The performance of digital textbooks based on Javanese culture is very much considered to see aspects that still need to be improved and are less than optimal because these digital textbooks will be further developed with stable and higher performance.

Good software also has a characteristic in the form of a fairly fast performance and the effect is immediately visible. Most good software does that so there is no need to take special actions and wait a long time to see the benefits

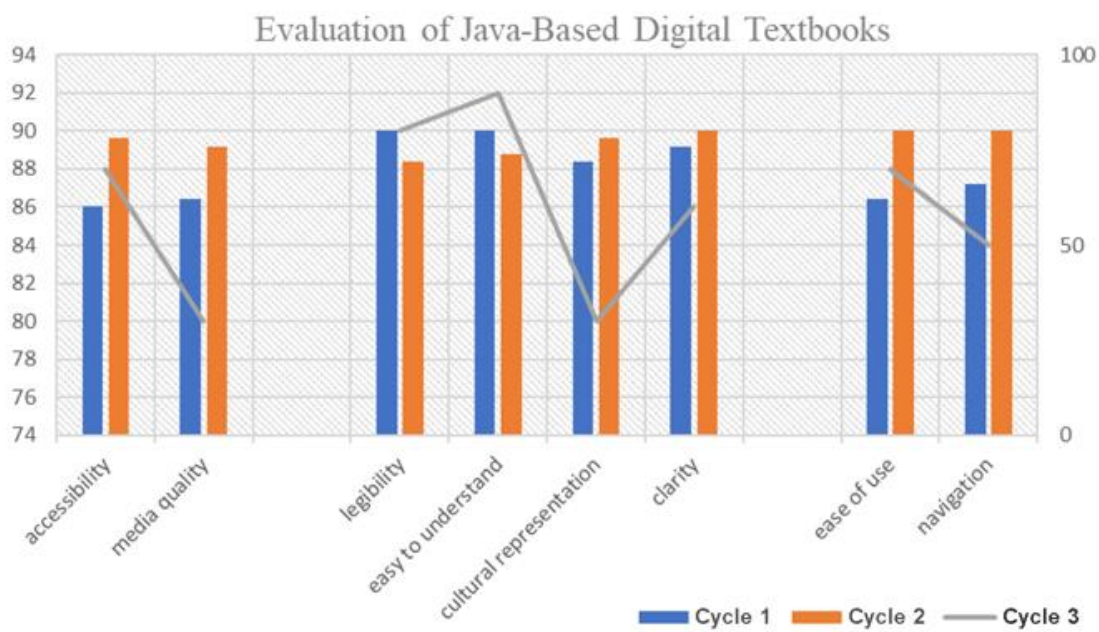


Fig 7: Result of assessment

An important assessment that must be considered as a digital textbook developer is the aspect of ease of use. Java-based digital textbooks that are made must be easy to use and mobile friendly. Users do not have to learn to use digital textbooks, but simply by looking at the features in the application, they already understand how (Sudaryanto, Mardapi and Hadi, 2019). These aspects can be well summarized in this digital textbook.

One of the aspects that is considered from digital textbooks based on Javanese culture is the appearance. Applications that have an attractive appearance will be very liked by users. A fresh and not monotonous appearance will make the application even better. In addition to an eye-catching display, in order to make it easier to use anywhere and anytime, the application of digital textbooks based on Javanese culture does not require an internet data connection so that application use is easy and does not burden users, namely foreign speakers.

There are three strategic functions carried out by BIPA, namely academic scientific functions, social communicative and political strategies. The academic scientific function is related to Indonesian language learning programs where learners (foreign speakers both in Indonesia and abroad) learn Indonesian from the linguistic aspect (grammar, vocabulary, spelling, and pronunciation). With BIPA learning, foreign speakers will understand and understand how to structure the correct Indonesian grammar, how to pronounce Indonesian words correctly, how to write the correct spelling in standard Indonesian grammar, increase the Indonesian vocabulary, etc. The end result is the achievement of Indonesian linguistic competence by foreign speakers and they are able to communicate in Indonesian properly (Izzak, 2009).

In addition to software development that has been analyzed previously, the essence of a good textbook has a synchronous and coherent structure of material, discourse content, and Indonesian language learning objectives for foreign speakers. The structure of digital textbooks based on Javanese culture has the arrangement and organization of interrelated elements in a material object or system. Java-based digital textbooks have a coherently structured content structure. The positioning of Java-based digital textbooks that are used for foreign speakers to have inappropriate language will make it difficult or confusing for readers to understand them (Sudaryanto and Rahayu, 2021). The characteristics of discourse and language use in digital textbooks have met the criteria for Indonesian language for foreign speakers.

Final evaluation of Java-based digital books through other formulations of functionality, reliability, usability, efficiency, maintainability, and profitability.

Final Evaluation of Digital Textbook

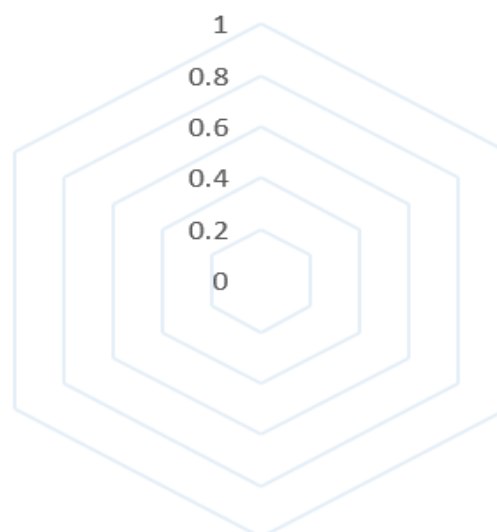


Fig 8: Final evaluation

The development of digital textbooks based on Javanese culture is able to show a pattern of interrelationships between one part and another, so that sentences, paragraphs, and inter-bbs have a unified whole meaning. In other words, the coherence of digital textbooks based on Javanese culture implies a connection between one part of the other. This shows that digital textbooks based on Javanese culture have content that is interconnected and related to each other. That is, the contents of one chapter to another are ill related and are still in the same topic of discussion.

BIPA teaching has different characteristics from language teaching Indonesian for foreign speakers. One of the differences is in terms of students. BIPA students are students who already have a first language (b1) and have different cultural backgrounds. In addition, the objectives of BIPA students are also very diverse. There are students who aim only to learn practical conversation, to be able to read, write, and there are those who aim to study in Indonesia. Different ages of learners must be a concern in BIPA learning. The approach used by BIPA teachers when foreign students are teenagers is certainly different from middle-aged ones. This difference in approach also affects the methods, techniques, and media used. (Muliastuti, 2016). The stimulation used in digital textbooks based on Javanese culture is able to represent the goal of learning Indonesian for each foreign speaker (Sudaryanto, Mardapi and Hadi, 2019b). In addition, digital textbooks have sound, visual, tactile, kinesthetic stimuli that are provided through several references to hone skills and the like. Culture-based textbooks contain discourse with a clear emphasis. That is, textbooks can emphasize the value of the material presented.

CONCLUSION

Learning Indonesian for foreign speakers will be more meaningful if the lecturer adds a unique and memorable stimulus. The use of teaching materials emphasizes the introduction of Javanese culture which is full of uniqueness and beauty so as to facilitate learning during the pandemic in Indonesia. Not only that, Javanese culture can be conveyed easily through the right stimulus. Language becomes an interesting learning if the material chosen is in accordance with the specified learning objectives by considering the urgency of the material from the perspective of the BIPA teacher. The development of digital textbooks begins with a story board which becomes a sketch of pictures arranged in a sequence that is used to develop digital textbooks. Aspects measured include accessibility, media quality, legibility, easy to understand, cultural representation, clarity, ease of use, and navigation. Digital books are able to show comfort for users, especially for foreign speakers. Accessibility assessment refers to the experience of using digital textbooks based on Javanese culture from the user's point of view, namely foreign speakers. The learning media developed contains a system of cultural symbols used by BIPA teachers and foreign speakers to optimize learning about Javanese culture. Digital textbooks are able to represent Javanese culture in the form of discourses that encourage foreign speakers to make learning more fun. The Java culture-based digital textbook that has been created has fulfilled the aspects of being easy to use and mobile friendly. Users don't have to learn to use digital textbooks, but simply by looking at the features in the app, they will understand how.

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