

# Optimization of Big Interactive General History of North Sumatra Application for History Education Students as Hybrid Learning Media

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**Abstract.** The following are the goals of this study: Finding out how to best utilise the big book apps of North Sumatra History Ledger application as a blended learning medium for students studying history within the MBKM curriculum; 2) Determining the efficacy of the big book North Sumatra History application as a blended learning medium that has been fine-tuned for students studying history; and 3) Developing an interactive North Sumatra History Book application. In this work, the research and development method was applied.

**Keywords:** General History, Big Data-Base, Hybrid Learning

## 1 Introduction

The North Sumatra History Interactive Digital Ledger Application, a remote learning tool for students studying history education, was created in 2022 as a result of research (PNBP Unimed). Remembering that at the time, Hybrid Learning was being introduced on the Unimed campus through the use of Distance Learning (PBJJ). After completing the effectiveness test, it was discovered that the application had a positive impact on the learning outcomes and motivation of History Education learner enrolled in the North Sumatra History Subject.

According to Tanjung (2022), the North Sumatra History interactive digital book application was developed using the Sugiono development processes, which are broken down into four parts: fundamental analysis, development part, field testing part, and dissemination part and socialisation part. Both quantitative and qualitatively produced literature is appropriate for use in teaching. The adequacy of instructional materials is demonstrated by the "good" ratings from both the media expert and the material expert. Testing revealed that the application product was very helpful for learning about North Sumatra's past. The average score for students' total learning accomplishment was 90.47. There were 84 students that finished the course. This indicates that every student fulfilled the grade criterion..<sup>1</sup>

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<sup>1</sup> Amri,. : Model Pembelajaran kurikulum 2013. Jakarta: Prestasi Pustaka. pp. 56-57 (2013).

The North Sumatra History Interactive Digital Ledger Application still has to have some aspects optimised and adjusted, even if it was developed in 2022. For instance, the accessible graphics seem primitive because they are not yet 3D-based; the programme is limited to Android-based smartphones and Windows PCs (no Windows PCs are available); and there was no live quiz menu that might be utilised as a medium for repetitive exercises. Due to the absence of Case Study/Team Based Project-based content and features in Hybrid Learning, the three assistance programmes now in use do not utilise the most recent version and do not sufficiently support students' growth. HOTS Reading.<sup>2</sup>

Therefore, in order to make the North Sumatra History Interactive Digital Ledger Application better, more adaptable, effectable, and efficiently in addressing the needs of history learning in high education in the future, more development study is needed to perfect/optimize it.<sup>3</sup>

## **2 Method**

The R&D method was used in this work. The process of developing and testing certain products is known as the development research method. To make a new product or enhance an old one, (R&D) is a process or a set of actions that can be documented.<sup>4</sup>

This interactive digital development process The North Sumatra History Big Book Apps follows the R&D paradigm established by Sugiono. The steps in the R&D model are: The steps involved in developing teaching materials are: a) operational analysis, that includes goal specification, material analysis, and student analysis; b) design part, that includes subjective material selection; c) production/implementation, which involves creating teaching materials and creating assessment tools (questionnaires, validation sheets, etc.); d) validation, which involves evaluating teaching materials and assessment tools (questionnaires, validation sheets, etc.).<sup>5</sup>

## **3 Results**

### **3.1 Analysis Part**

Examining many in prerequisites was the part one in the designing of this substansial. The North Sumatra History Big Book Apps will be constructed using these specifications, which also cover material selection and user identification.

#### **3.1.1 User**

The North Sumatran History Big Book Apps is intended for use by learner in the Study Program of History Education. Students find learning with mobile devices (smartphones) to be particularly enticing because it allows them to study freely whenever and wherever they desire. This is supported by interviews with a variety of students. The North Sumatran History

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<sup>2</sup> Arsyad, A : *Media Pembelajaran*. Jakarta: Rajagrafindo Persada. pp. 23 (2011)

<sup>3</sup> Darmadi, : *Metode Penelitian Pendidikan*. Bandung: Alfabeta. pp. 56 (2011)

<sup>4</sup> Effendi, Et Al: *E-learning Konsep dan Aplikasi*. Penerbit: Andi Offset. Yogyakarta. Pp. 65 (2005)

<sup>5</sup> Kadir. : *Statistika Terapan*. Jakarta: Raja Grafindo Persada. pp 42 (2015).

Ledger, which will be built, can be entered by the each student, according to main study conducted by researchers of observations and discussion.<sup>6</sup>

### 3.1.2 Material Needs

This example's content relates to the course materials for North Sumatra History. After presenting the students with a number of prepared learning themes, the researcher conducts in the oral test. According to the demands they encountered throughout the instructors, learners that tested to rank the significance of each subjects of them. The researcher need to know how important the subjects being studied were for helping students in the North Sumatra History course develop their skills.

Additionally, for the North Sumatra History big book application to show the learning resources that the students have completed. Researchers found that most students consider audio and video to be extremely important learning resources.<sup>7</sup>

Therefore, researchers should incorporate a part of additional menus, such as practical problems and videos related to the Local history subject, for satisfying the demands of learners. Videos, which will serve as inspiration for student projects in the Indonesian History course, centres on events or symptoms related to the course's topic.

### Product Design Part

The design of the product North Sumatra History Big Book Apps in this research consisted of creating project-based teaching materials using the research method and creating the North Sumatra Big book Apps for Android based research method learning materials.

According the study and development of PBL textbooks, the North Sumatra History Big Book Apps<sup>8</sup> will be designed. The original Android-based North Sumatran History Ledger application product design was devided into two parts: the front-end design, which was created for learner enrolled in Local history subject, and the backend forms, which was created for instructors, who are the application's administrators. This allowed for the North Sumatran History Ledger application to be updated at any time.

The first view of the application that the user sees when accessing it is the login view. The user name and password boxes are required to be filled out by the user on the display. The professor, who is also the North Sumatra administrator, will provide a password to students enrolled in the Research Methods course..<sup>9</sup>

The screen that displays once the student completes the login process successfully is known as the front screen. There will be a menu visible on the front panel. There are three menus:

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<sup>6</sup> Lehman, L: *An Approach to Employee Training & Development*. Rising Sun Consultants. Pp. 52. (2007)

<sup>7</sup> Miarso,,: *Menyemai Benih Teknologi Pendidikan*. Jakarta: Kencana Prenada Media Group. Pp. 21 (2007).

<sup>8</sup> Muhtadi,,: *Pemanfaatan Program CAI dalam Program Pembelajaran Berbasis Internet*. Universitas Negeri Yogyakarta. Pp 6 (2013).

<sup>9</sup> Munadi, Y.: *Media Pembelajaran Sebuah Pendekatan Baru*. Jakarta Selatan. pp. 9 (2013).

"About" on the first menu provides information about the local History Big book Apps product; "Material" on the number two menu lists the substance and sub-substance that will be covered in instructure activities; and "6 assignments" on the number three menu provides details about the six task submenus. The menu labelled Learning Plan is the fourth one.

The "Home" menu contains information on the North Sumatran History Big book Apps. These particulars consist of the name, function, and usage guidelines of the application. The material menu is a display that includes several types of content, including written articles, images, and videos, that are linked to the instructional materials in the online Local History course. This option also provides students with powerpoint slides and the Learning Plan.

The North Sumatra History Big Book Apps is designed to expand both the blended learning paradigm and the six objectives set forth by the curriculum, which are relevant at Universitas Negeri Medan.<sup>10</sup> The six tasks that students need to finish are fully explained in the 6 task menu. The North Sumatran History Ledger Application is made throughout the development phase. When developing the North Sumatra History Big book Apps, it was modified to the design. Number one, the files—such as images, films, and animations—that are required to complete this North Sumatra History Ledger application are gathered. These materials were acquired via searching YouTube, Google, and electronic books.<sup>11</sup>

After all resources have been acquired, the Sigli programme is used to create the North Sumatran History big book Apps, which is the Android version of the North Sumatran History Big Book Apps.

### **3.2 Implementation Part**

The implementation part includes the apps trials that have been planned for several respondents. During deployment, the researcher uses the Blended Learning paradigm to design a learning scenario. Four sessions made up the blended learning implementation: two in-person meetings and two virtual meetings using Webex and gmeet web meetings for lectures on Local history. A learning media expert and a material specialist were recruited by the researcher to assess the North Sumatra History Ledger Application during the testing.<sup>12</sup>

#### **3.2.1 Expert Validation**

Before runs the product, the researcher had the product evaluated by experts in digital-based learning media and research techniques materials. The 3 experts opinion' perspectives are as follows:

##### **(a) Results of the Media Expert Validation**

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<sup>10</sup> Nasr, Ahmad.: *Attitude Towards Biology and Its Effect on Students Achievement.*,Vol.3,No.4. pp. 14-17. International Journal of Biology (2011).

<sup>11</sup> Nasution, Abd Haris.: *Pembelajaran Sejarah* abad 21. Obelia Publisher: Medan. Pp 54-67. (2021)

<sup>12</sup> Sadiman,. S.: *Media Pendidikan*. Jakarta:RajaGrafindo Persada. pp 17 (2010)

Media experts are respondents who are judged to have either a positive or negative opinion on a learning medium. A digital learning media specialist evaluated the North Sumatra History Ledger application's software engineering and visual communication components.

#### (b) Material Expert Validation

The prepared North Sumatra History Ledger Application media's material content is evaluated for viability by material professionals who have reacted. The material experts selected by the study's author not only have an academic background in Local history and expertise on learning models, but they also truly know how to create engaging learning experiences based on the materials and submaterials in the Local history course.

The material specialist rates the information that the researcher provided about the product in the assessment questionnaire mentioned above as being in very good condition. The material assessment yielded 86 total outcomes, with an average value of 4.30, after taking into consideration all 20 evaluation factors. The Android North Sumatra app's content.<sup>13</sup>

### 3.3 Apps of the North Sumatran History Big Book in Learning Local History

The North Sumatran History Big Book Apps is used in the Hots-based Research Methods course as a result of this research. To ascertain how students react to and assess the outputs produced, it is crucial to include the North Sumatran History Big Book Apps into Indonesian history lectures.

In order to indicate their motivation in learning the Research Methods course using the North Sumatran History Big Book Apps based on Hots, students were tested to answer a response questionnaire by checking the appropriate numbers on the range: (4) as very agree, (3) as agree, (2) as disagree, and (1) as very disagree. The percentage value derived from each aspect of the questionnaire was then computed, following Supriatna's instructions, in order to assess the results. To accomplish this, divide each aspect's total value by the greatest number, then multiply the resulting number by 100%.<sup>14</sup>: 
$$P = \frac{f}{N} \times 100$$

Result of 88.49% for elements of motivation, 88.67% for aspects of student interest in using applications, 86.81% for parts of attentiveness, and 89.24% for aspects of student involvement were obtained from the student answer questionnaire. When examining the four components, it is clear that students had a very positive response, suggesting that they are eager to use the created North Sumatra History Ledger Application for their studies.

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<sup>13</sup> Sugiyono, .: Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta. pp 63 (2023)

<sup>14</sup> Supriatna, N: Konstruksi Pembelajaran Sejarah Kritis. UPI Press: Bandung. Pp. 13 (2007)

## 4 Conclusion

One of the best educational tools available to help pupils learn about North Sumatra's past is the app called North Sumatran History Book. There is no doubt that the Hybrid Learning learning paradigm will perform better when utilised in conjunction with the Ledger Application. Additionally, by utilising the North Sumatran History Ledger Application, students can enhance their Literacy Hots skills and foster an independent and learning culture.

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