Development of Digital Teaching Materials based on Rampoe Aceh Local Culture in the form of Flipbooks

Rika Restela[1], Juwita Tindaon[2]

{restelastela@gmail.com[1], wieta.niez@gmail.com[2]}

[1]Universitas Negeri Medan, Medan, Indonesia
[2]Berastagi Quality University, Berastagi, Indonesia

Abstract. Learning is determined not just through conventional educators but also by the important function of digital technology in current advancements. The advancement of digital technology is eagerly anticipated. The unavailability of digital teaching materials and students' limited understanding of their local culture necessitates that educators possess the skills to create teaching resources that leverage digital technology rooted in local cultural contexts. This is a development study, specifically focused on research and development (R&D). This study focuses on creating digital teaching resources that reflect the local culture of Rampoe Aceh. The study employs the ADDIE development model, which encompasses five stages: (1) analysis, (2) design, (3) development, (4) implementation, and (5) evaluation. The population in this study were all 6th-semester students in the PGMI Study Program at IAIN Langsa FTIK. The sample in this study was unit 1 of 4 classes that became the population. The feasibility of the material, media, and language in this teaching resource was assessed by six validators.The practicality is assessed through a response questionnaire distributed to students and lecturers who utilize the developed teaching materials. The validation results indicate a score of 95% for teaching materials (very feasible), 90% for material validation (very possible), and 89% for language validation (very possible). The practicality results derived from student responses indicated a score of 91% (very practical), while the lecturer responses yielded a score of 92% (very practical). The research results indicate that the digital teaching materials rooted in the local culture of Rampoe Aceh are both viable and practical for implementation in the learning process.

Keywords: Development, Digital Teaching Materials, Local Culture, Rampoe Aceh, Flipbook

1   Introduction

In the context of society 5.0, the educational landscape plays a crucial role in enhancing human resources. It is essential for educators and students to possess specific skills in utilizing digital technology for effective learning. The advancements in technology during the Society 5.0 era foster the creation of new value, aiming to bridge social, age, gender, and language divides. This evolution facilitates the development of products and services tailored to meet the diverse needs of individuals and communities [11]. Addressing the challenges of Society 5.0 requires the essential life skills of the 21st century, commonly referred to as the 4C: creativity,

communication, critical thinking, and collaboration [16]. The pivotal importance of 21st-century learning media is crucial and needs to be addressed within Indonesia's existing educational framework.

The most dominant thing about 21st-century education is that education and technology are interrelated [15]. 21st century skills make Science, and Technology (Science and Technology) important in acquiring skills to enter the workforce. 21st-century skills generally include communication, collaboration, problem-solving, digital literacy, citizenship, creativity, critical thinking, and productivity. Education has undergone significant transformations, seen in the digitization of learning through the use of technological resources [9]. The incorporation of technology in education enhances the delivery of information through diverse media, while also promoting collaborative learning and encouraging active engagement among learners [5]. Consequently, education significantly contributes to equipping students to confront and compete in the workforce.

To be able to think critically, and be creative and productive, the younger generation must learn from what is developing. Learning is not only through teachers or lecturers, but also from the surrounding environment, especially technology which is central to the development of education today. The incorporation of technology in education has become integral to the learning environment, facilitating students' comprehension of topics and enhancing motivation through the presentation of engaging and pertinent content [10]. Technological developments are expected to support the spread of all sectors, including culture.

The Cultural Arts course in the PGMI Study Program at IAIN Langsa FTIK is one of the courses that serves as a means of introducing regional and archipelago culture. Students learn local wisdom and a variety of rich and unique cultures [7]. In this course, students get to know art, culture, customs, and local wisdom and hone their skills in art. PGMI graduates are expected not only to be good at educating intellectual intelligence but also creativity and personality through artwork based on culture and local wisdom [4]. However, the learning resources used so far are still conventional. This does not increase students' appreciation and skills in learning arts and culture.

As students in one of Aceh's universities, they should be familiar with the development of local culture. However, knowledge about the development of local culture is still very minimal. Along with the times, it also affects the preservation of this culture which is marked by the decline in student interest in preserving this culture [20]. The younger generation should be more active in participating to preserve local culture and arts. Other contributing factors are the lack of public socialization of Acehnese culture and the limited availability of Acehnese cultural learning media.

In addition, the PGMI Study Program of IAIN Langsa FTIK collaborates with other universities outside Aceh Province in the Merdeka Belajar - Kampus Merdeka (MBKM) program. Nadiem Makarim articulated that the Merdeka Belajar Kampus Merdeka initiative constitutes a component of the Merdeka Belajar framework established by the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia. This program provides students the chance to enhance their abilities in accordance with their unique talents and interests through direct engagement with the professional world, thus acting as a foundational step for their future careers. The MBKM program allows students to engage in the same study program across various universities, thereby encouraging them to learn about community living in an indirect manner [3]. Cultural Arts is one of the courses in the MBKM program. Several foreign students from different countries will also take part in learning in this program. MBKM students will gain a cognitive and psychomotor understanding of customs, and wisdom of local arts and culture, one of which is Rampoe.

Rampoe Aceh is an art form originating from Aceh Province [21]. Rampoe in Aceh language means mixture or series. As the name suggests, Rampoe Aceh is a collective of several Acehnese arts such as Seudati, Laweut, and Ratoeh Duek. The combination of these arts used to be used as a medium to broadcast religion and faith values to the community. Rampoe Aceh is a product of the Acehnese community so the dance describes the characteristics and characteristics of the community such as behavior, mindset, and customary structures [14]. Rampoe has a meaning of spirit, self-esteem, assertiveness, confidence, and cooperation. This needs to be introduced to students to know the local culture, as well as inspire the educational values contained in Rampoe so that it can be used as material in developing learning media.

Understanding the local culture should go directly to the location in question. However, due to the limited distance learning implementation, digital technology-based teaching materials are needed to support this distance learning. Distance learning is a learning activity that is planned in different places, and does not take place face-to-face, but emphasizes independent learning and the need for technology in providing learning materials [1]. One of the learning innovations that lecturers need to do is to develop digital-based teaching materials which are expected to increase students' enthusiasm for participating in online learning [6]. Digital teaching materials are electronic resources utilized by students to assess their abilities, released in a digital version accessible via cellphones, laptops, and PCs. Digital teaching resources are more engaging and dynamic due to their use of images, text, navigation, and videos, facilitating enhanced comprehension of the presented content for students [12].

A method of incorporating technology into education is through the utilization of flipbook teaching materials, which are digital books employed by educators to convey instructional content [19]. The flipbook is an integral component of educational materials that enhances the learning process, renders activities more engaging, facilitates the mastery of competencies, and affords students chances for autonomous learning [18]. The creation of digital instructional resources like flipbooks is anticipated to enhance the appreciation and representation of local wisdom, arts, and culture of Aceh.

The development of digital teaching materials as flipbooks was accomplished using paid software, specifically Canva Pro and Heyzine. Canva Pro software is a graphic design software that makes it easy to create visual materials. The Canva Pro application can be used as a means to organize teaching materials systematically according to the needs of the material to be designed [13]. Canva Pro can be used to create poster designs, infographics, and presentations. Canva Pro has design templates, colors, and fonts, and can embed images or other media that can be used to clarify the material [8]. Heyzine is a type of software for creating interactive digital flipbooks. Heyzine is a platform for converting PDF files into digital books or flipbooks. Through this application, the flipbook display can be flipped and there are images, audio, video, and hyperlinks.

2 Research Method

The research involves research and development (R&D). The development of digital instructional materials grounded in local culture, formatted as flipbooks, was carried out utilizing the ADDIE model. The ADDIE Development Model is comprised of five distinct stages: analysis, design, development, implementation, and evaluation [2]. The research location is in the PGMI Study Program, FTIK IAIN Langsa. The population in this study was

86 students in semester VI. The sampling technique was carried out with a nonprobability technique, namely quota sampling totaling 27 people from unit 1.

Data collecting methodologies employing non-test instruments, namely validation sheets from pedagogical material specialists, subject matter experts, and linguists. The feasibility evaluation sheet utilizes a Likert scale ranging from 1 to 5 [17], accompanied by the following assessment categorization :

Table 1. Media Feasibility Assessment

Qualitative Criteria	Score
Very Good (SB)	5
Good (B)	4
Good Enough (CB)	3
Not Good (TB)	2
Very Bad (STB)	1

[17]

The data analysis method was employed to assess the viability of the updated digital teaching resources. To assess the viability of each component of digital instructional materials with the Likert scale methodology, specifically:

$$= \frac{\Sigma S}{maks} \times 100\%$$

P   = Percentage
ΣS = Total answer score
maks   = Maximum expected score

The computation results are utilized to ascertain the feasibility score of digital instructional resources. The categorization of the feasible range for instructional materials is illustrated in the table below:

Table 2. Media Feasibility Criteria

Eligibility Score	Criteria
0% - 20%	Very Unfit
21% - 40%	Not Feasible
41% - 60%	Decent Enough
61% - 80%	Feasible
81% - 100%	Very Decent

Furthermore, it assesses practicality based on questionnaires completed by students and professors. The value is derived from each component as a percentage using the following formula:

$$Percentage = \frac{TotalAnswer\ Score}{Maximum\ Score} \times 100\%$$

The subsequent outcomes of student responses will be classified into the following categories:

Table 3. Media Practicality Criteria

Percentage	Criteria
0% - 20%	Very Less Practical
21% - 40%	Less Practical
41% - 60%	Practical Enough
61% - 80%	Practical
81% - 100%	Very Practical

3 Results and Discussion

The outcomes of the research led to the creation of a product consisting of digital teaching materials rooted in the local culture of Rampoe Aceh, developed through the ADDIE model, which encompasses the following stages:

A. Analysis

During the analytic phase, an assessment was conducted on student requirements through RPS, educational resources, motivational factors, and student performance. A needs analysis is performed to determine the digital teaching materials developed according to the learning needs of PGMI students during the implementation of remote learning (MBKM), with the goal of improving educational quality.

B. Design

During the design phase, researchers developed digital educational resources rooted in the local culture of Rampoe Aceh by assembling a modular structure utilizing a laptop, internet connectivity, and Microsoft Word. The material compiled is by the theoretical foundations of dance and culture supported by the use of images, photos, and videos to deepen the coverage of material and real understanding by readers. The prepared teaching materials are also equipped with evaluation questions to evaluate the level of student understanding of the material. Furthermore, the teaching material draft file is converted into PDF form. After the material has been compiled, teaching materials are designed using templates that support the Canva Pro paid application, this is to make the module look more attractive.
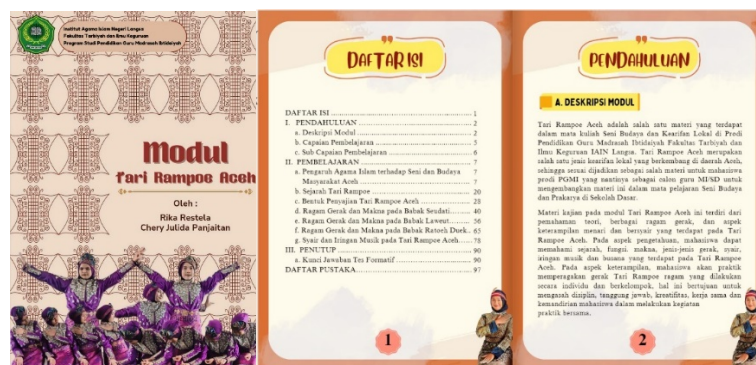

Fig. 1. Display of teaching materials after design using Canva Pro

Furthermore, researchers utilize the Heyzine program to format educational materials into flipbooks. This tool converts PDF draft materials into a flipbook, enabling interactive display of educational content with animated graphics, videos, and audio.

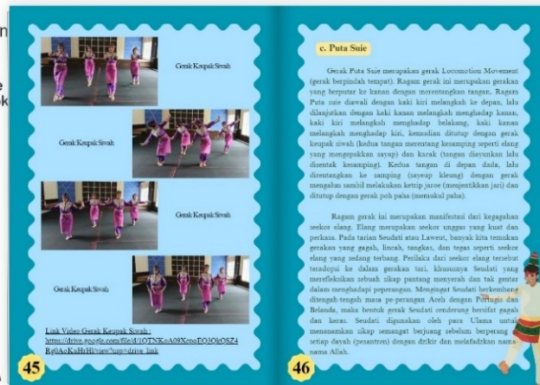**Fig. 2.** Cover view after being converted to Flipbook

Fig. 3. Material Display on Flipbook

The researcher developed a research tool intended to assess the practicality of digital teaching resources rooted in the local culture of Rampoe Aceh. The instrument employs a Likert scale for calculation, featuring assessment categories that range from 5 to 1, represented as SS (Strongly Agree), S (Agree), KS (Less Agree), TS (Disagree), and STS (Strongly Disagree).

C. Development

During the creation phase, a validation procedure for digital teaching materials was conducted utilizing an instrument to assess the viability of the Rampoe Aceh local culture-based digital teaching resources. The assessment tool was verified by six validators, comprising material experts, educational material specialists, and linguists. The evaluation by instructional material professionals encompasses content, flipbook format, design, and presentation elements. Evaluation by subject matter experts encompasses the correlation between learning outcomes and educational resources. Linguists' evaluations of language usage in digital instructional resources are comprehensible to pupils. The subsequent outcomes pertain to the validation of digital instructional materials.

Table 4. Teaching Material Validation Result

No	Feasibility Validation of Teaching Materials	Percentage	Criteria
1.	Material Expert Validation I and II	90 %	Very Feasible
2.	Teaching Material Expert Validation I and II	95 %	Very Feasible
3.	Language Expert Validation I ahli II	89 %	Very Feasible

The average score from the material expert validation evaluation conducted by two validators is 90%, categorizing it as highly practicable. The media expert validation findings from two evaluators yielded an average score of 95%, categorizing it as highly viable. The validation findings from two language experts yielded a score of 89%, indicating a very viable assessment. The validation findings of materials, teaching resources, and language indicate that the digital teaching materials grounded in the local culture of Rampoe Aceh satisfy the criteria for success and validity. This indicates that the generated digital teaching resources may be utilized and evaluated in the learning process.

D. Implementation

At the implementation stage, a limited trial was conducted on GMI FTIK IAIN Langsa students using the validated Rampoe Aceh local culture-based digital teaching materials. The trial was conducted in one of the MBKM classes in unit 1. At the end of learning, students and lecturers were given a response questionnaire to the digital teaching materials used.

Responses from 27 students of unit 1 of PGMI Study Program to digital teaching materials based on local wisdom Rampoe Aceh were obtained with a total of 1,234 with a percentage result of 91.4% and "very practical" criteria used as teaching materials for students in Cultural Arts courses in PGMI Study Program FTIK IAIN Langsa.

Table 5. Result of Student Response Assessment Questionnaire

Total	Percentage	Criteria
1.234	91,4%	Very Practical

The lecturer evaluated the trial of digital teaching materials rooted in the local wisdom of Rampoe Aceh for Cultural Arts learning, achieving a total score of 55, which corresponds to a percentage of 91%, categorizing it as "very practical."

Tabel 6. Results of the Lecturer Response Assessment Questionnaire

Total	Percentage	Criteria
55	91,7%	Very Practical

E.   Evaluation

The evaluation stage represents the final refinement of teaching materials, incorporating the suggestions and feedback provided by expert validators in the fields of materials, teaching resources, and language. The computed score reflecting the percentage of validation sheets for teaching materials, language, materials, and questionnaire responses from students and lecturers in the prior phase was conducted to assess the validity of digital teaching materials deemed appropriate for Cultural Arts course instruction.

4   Conclusion

The results resulting from the investigation and dialogue surrounding the creation of digital teaching materials rooted in the local culture of Rampoe Aceh, presented as flipbooks, lead to the following conclusions: (1) This development research produces a digital teaching material product based on the local culture of Rampoe Aceh in the form of a Flipbook. Researchers use the ADDIE development model, design materials using templates from the Canva Pro paid application, and convert materials into Flipbook displays using the Heyzine application. The validation results from six evaluators indicate that the digital teaching materials developed based on the local culture of Rampoe Aceh, presented in flipbook format, are appropriate for use in Cultural Arts Courses. Based on the total assessment of material experts I and II of 90% with the category "very feasible". The total assessment of media experts I and II amounted to 95% with the category "very feasible". The total assessment of linguists I and II amounted to 895 with the category "very feasible". (2) The practical significance of digital teaching materials rooted in the local culture of Rampoe Aceh, presented as flipbooks, is derived from the feedback gathered from students and lecturers. The calculation of the student response value yielded 91.4%, categorized as "very practical," whereas the lecturer's response resulted in a value of 91.7%, also classified as "very practical."

References

[1]   Abidin, Z., Hudaya, A., & Anjani, D. (2020). Efektivitas Pembelajaran Jarak Jauh Pada Masa Pandemi Covid-19. *Research and Development Journal of Education*, *1*(1), 131. https://doi.org/10.30998/rdje.v1i1.7659

[2]   Cahyadi. (2019). Pengembangan Bahan Ajar Berbasis Addie Model. *Halaga: Islamic Education Journal*, *3*(1), 35–42. https://doi.org/10.21070/Halaqa. V3i1.2124

[3]   Fadhol. (2023, April 23). *Apa itu Merdeka Belajar Kampus Merdeka (MBKM)*. Dunia Kampus. https://sevima.com/apa-itu-merdeka-belajar-kampus-merdeka/

[4]   FTIK. (2017, April 17). *PGMI: Guru Juga Harus Bisa Seni*. FTIK IAIN Palangkarya. file:///C:/Users/DELL/Downloads/PGMI_ Guru Juga Harus Bisa Seni – FAKULTAS TARBIYAH & ILMU KEGURUAN IAIN PALANGKA RAYA.htm

[5]   Hariadi, F. T., & Nugroho, A. A. (2024). Peran Teknologi dalam Pembelajaran Seni Rupa

Abad 21. *Didaktik: Jurnal Ilmiah PGSD FKIP Universitas Mandiri*, *10*(1), 2386–2396.

[6] Hayati, N., & Azizah, Z. (2021). Bahan Ajar Elektronik Book Berbasis Kvisoft Flipbook Maker pada Mata Kuliah Penilaian Program PLS. *Journal of Nonformal Education and Community Empowerment*, *5*(2), 139–144. https://doi.org/10.15294/pls.v5i2.50182

[7] Humas. (2024, July 3). *Resmikan SANTIKA, Wadek III FTIK IAIN Langsa : Seni Hasil Dialektika Suatu Bangsa*. Fakultas Tarbiyah Dan Ilmu Keguruan Institut Agama Islam Negeri Langsa. https://ftik.iainlangsa.ac.id/view/resmikan-santika-wadek-iii-ftik-iain-langsa-seni-hasil-dialektika-suatu-bangsa

[8] Irmawati, B. M., & Hutapea, B. (2023). Pemanfaatan E-Modul Bahan Ajar Berbasis Aplikasi Canva pada Prodi Pendidikan Matematika dalam Proses Pembelajaran Jarak Jauh. *Jurnal Pendidikan Sains Dan Komputer*, *3*(1), 145–152.

[9] K. N. S. Rahayu. (2021). Sinergi Pendidikan Menyongsong Masa Depan Indonesia di Era Society 5.0. *Edukasi J. Pendidika. Dasar*, *2*(1).

[10] Mdhlalose, D., & Mlambo, G. (2023). Integration of Technology in Education and its Impact on Learning and Teaching. *Asian Journal of Education and Social Studies*, *47*(2), 54–63. https://doi.org/10.9734/ajess/2023/v47i21021

[11] Nastiti, F. E., Ni'mal 'abdu, A. R., & Kajian, J. (2020). Edcomtech Kesiapan Pendidikan Indonesia Menghadapi era society 5.0. *Jurnal Kajian Teknologi Pendidikan*, *5*, 61–66.

[12] Nisa, D. C., Purwidiani, N., Widagdo, A. K., & Astuti, N. (2024). Pengembangan Bahan Ajar Digital dengan Aplikasi Flip Pdf Corporate Edition Pada Materi Peralatan Dapur Siswa Fase E. *Jurnal Ilmiah Profesi Pendidikan*, *9*(3), 1655–1661. https://doi.org/10.29303/jipp.v9i3.2468

[13] Novitasari, A. ., & Pratiwi, E. Y. R. (2023). E-Modul Interaktif Berbasis Canva untuk Meningkatkan Kemandirian Belajar Siswa pada Sekolah Dasar. *Innovative : Journal of Social Science Research*, *3*(3), 3437–3455.

[14] Restela, R., & Narawati, T. (2017). *Tari Rampoe sebagai Cerminan Karakteristik Masyarakat Aceh*.

[15] Robbia, A. Z., & Fuadi, H. (2020). Pengembangan Keterampilan Multimedia Interaktif Pembelajaran IPA untuk Meningkatkan Literasi Sains Peserta Didik di Abad 21. *Jurnal Ilmiah Profesi Pendidikan*, *5*(2), 117–123. https://doi.org/10.29303/jipp.v5i2.125

[16] Subandowo, M. (2022). Teknologi Pendidikan di Era Society 5.0. *SAGACIOUS Jurnal Ilmiah Pendidikan Dan Sosial*, *9*(1), 24–35.

[17] Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Alfabeta.

[18] Suryani, K., Utami, S. I., Khairudin, Ariska, & Rahmadani, F. A. (2020). Pengembangan Modul Digital berbasis STEM menggunakan Aplikasi 3D FlipBook pada Mata Kuliah Sistem Operasi. *Mimbar Ilmu : Universitas Pendidikan Ganesha*, *25*(3), 358–367. https://ejournal.undiksha.ac.id/index.php/MI/article/view/28702

[19] Ulandari, R., Syawaluddin, A., & Hartoto. (2022). Pengembangan Bahan Ajar Flipbook Berbasis Teknologi Informasi dan Komunikasi (TIK) pada Siswa Sekolah Dasar di Kabupaten Jeneponto. *PINISI Journal of Education*, *2*(5), 106–114.

[20] Yuli Sri Astuti, L. K. Y. (2023). Penerapan Faktor-Faktor yang Mempengaruhi Lemahnya Minat Mahasiswa terhadap Sastra dan Budaya di Cianjur . *Kulturistik : Jurnal Bahasa Dan B Udaya*, *7*(1), 72–76.

[21] Zul. (2021, May 29). Rampoe Aceh, Tarian Pembawa Harum Nama Pemko Langsa di Kancah Nasional. *Gpriority.Co.Id*.