

ENHANCING LITERARY APPRECIATION THROUGH CULTURALLY RESPONSIVE DIGITAL LEARNING: INTEGRATING 3D FLIPBOOK MEDIA IN HIGHER EDUCATION

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Abstract

This study aims to develop and evaluate a literary appreciation learning model integrating Culturally Responsive Teaching (CRT) with 3D Flipbook media. Using a Research and Development (R&D) approach, the study involved needs analysis, design, development, implementation, and evaluation. The results indicate that the model is highly valid, as evidenced by expert validation scores exceeding established criteria, and significantly more effective than conventional methods in enhancing students' literary appreciation. Students also demonstrated highly positive responses, particularly in terms of engagement, cultural relevance, and learning motivation. The integration of culturally responsive pedagogy with interactive digital media fosters deeper understanding and meaningful engagement with literary texts. These findings suggest that the model provides a valid, practical, and effective instructional innovation for higher education, contributing to the advancement of culturally responsive and technology enhanced learning.

Keywords: Literary Appreciation, Culturally Responsive Teaching, 3D Flipbook media, Learning Model, Language Education

1. INTRODUCTION

1.1 Introduce the Problem

The teaching of literary appreciation plays a vital role in language and literature education, particularly in developing students' aesthetic sensitivity, critical thinking, social empathy, and cultural understanding (Sumardjo & Saini, 1986). However, in practice, literary appreciation learning at the higher education level, especially in Primary School Teacher Education (PGSD) programs, still faces several challenges. These include low student engagement, dominance of lecture-based instruction, limited use of interactive learning media, and learning materials that are not sufficiently aligned with students' cultural backgrounds.

This issue becomes more significant in multicultural contexts such as Lampung, where local cultural and literary resources have not been optimally integrated into classroom instruction. As a result, students often experience difficulties in connecting literary texts with their own cultural experiences, which may reduce motivation and depth of interpretation. Therefore, an instructional approach that integrates cultural relevance is required to address these limitations.

Culturally Responsive Teaching (CRT) offers a relevant pedagogical framework to bridge this gap. CRT emphasizes the importance of connecting instructional content with students' cultural identities and lived experiences to create more inclusive and meaningful learning environments (Gay, 2015; Zain et al., 2023). In addition, the use of digital learning media such as 3D Flipbook technology provides interactive and visually engaging learning experiences that can enhance student motivation and comprehension (Wicaksono et al., 2021; Yusra, 2022).

Previous studies have explored CRT and digital learning media separately; however, limited research has investigated the integration of both approaches in the context of literary appreciation learning. This gap indicates the need for a more comprehensive instructional model that combines culturally responsive pedagogy with interactive technology.

Therefore, this study aims to develop and evaluate a literary appreciation learning model that integrates Culturally Responsive Teaching (CRT) with 3D Flipbook media. The study is designed using a quasi-experimental approach to examine the effectiveness of the developed model in improving students' literary appreciation skills. The findings are expected to contribute to the development of innovative, culturally responsive, and technology-enhanced learning practices in higher education.

1.2 Explore Importance of the Problem

This problem deserves new research because previous instructional practices have not effectively integrated cultural relevance and digital technology. Existing approaches tend to be fragmented, focusing either on pedagogy or technology. From an applied perspective, this study addresses the need to improve engagement, motivation, and cultural awareness. Therefore, this study aims to develop a comprehensive learning model integrating CRT and 3D Flipbook media.

1.3 Describe Relevant Scholarship

The theoretical foundation of this study is built on three main pillars: the theory of literary appreciation, the approach of Culturally Responsive Teaching (CRT), and the multimedia learning theory that supports the use of 3D Flipbook media. These three elements synergistically construct a conceptual framework for a contextual, interactive, and culturally responsive literary appreciation learning model.

First, literary appreciation in higher education is understood as an active process of understanding, enjoying, interpreting, and evaluating literary works (Aminuddin, 1987; Sumardjo & Saini, 1986). According to the reader-response perspective, readers play a central role in constructing the meaning of texts through their experiences and backgrounds. In this framework, students actively construct meaning based on their personal and cultural contexts. This perspective is supported by hermeneutic and reception-oriented views, which regard interpretation as context-dependent (Fishman, 2021). This study adopts these principles by encouraging students to connect literary texts with their local culture through project-based activities and critical reflection.

Second, Culturally Responsive Teaching (CRT), as developed by Gay (2015) and further examined by Abacioglu et al. (2020), forms the pedagogical foundation of the model. CRT emphasizes that effective learning must be sensitive to students' cultural backgrounds and treat them as resources in the learning process. This approach highlights the importance of cultural relevance in content, teaching strategies, and classroom relationships. It is particularly appropriate for PGSD students from diverse cultural backgrounds (Arcilla Jr, 2024), as reflected in this study, which incorporates Lampung local literature as core learning material. The sociocultural theory of Vygotsky also underpins this approach, particularly the concepts of Zone of Proximal Development (ZPD) and scaffolding (Fahyuni, 2019), which assert that socially and culturally mediated learning can maximize students' potential. In practice, students build understanding through collaborative discussion, text exploration, and the creation of literary works based on personal and cultural experiences (Azhary & Fatimah, 2024; Susiana, 2017).

Third, the use of 3D Flipbook media in this study is grounded in the cognitive theory of multimedia learning, which posits that comprehension improves when information is presented through both verbal and visual modes. 3D Flipbook media enables the delivery of literary materials through text, images, audio, and animation in a multimodal learning experience (Wicaksono et al., 2021; Yusra et al., 2021; Yusra, 2022). Beyond enhancing information representation, it also increases students' learning motivation through engaging and interactive design (Gusman et al., 2021; Juwati et al., 2021). Furthermore, social learning perspectives suggest that observational learning plays an important role in shaping learners' attitudes and behaviors, which supports the use of Flipbook as a modeling tool. When students observe appreciative attitudes toward literature through visual media, they are encouraged to emulate and develop similar attitudes in real-life learning situations. This was evident in the study's findings, as students were more enthusiastic and active when creating and presenting their own literary works in digital Flipbook format.

These theoretical foundations complement each other and serve as the conceptual basis for the learning model developed in this study. Based on the integration of reader-response theory, culturally responsive teaching, and multimedia learning theory, this study proposes a comprehensive instructional model. It is hypothesized that a literary appreciation learning model designed with CRT and supported by 3D Flipbook media will be valid both theoretically and practically, and effective in enhancing PGSD students' literary appreciation skills. This hypothesis guides the development and testing process, which is further explained in the methodology and results sections.

Despite these theoretical advancements, there remains a lack of integrated models that combine reader-response theory, Culturally Responsive Teaching (CRT), and multimedia learning within a single instructional framework. Previous studies tend to focus on these aspects separately rather than holistically (Anshari & Sakaria, 2019; Siregar et al., 2023). To address this gap, this study develops and empirically tests a literary appreciation learning model that integrates CRT principles with interactive 3D Flipbook media. By bridging cultural context, reader engagement, and digital interactivity, the model aims to enhance students' literary interpretation, cultural awareness, and overall learning outcomes. This study therefore contributes to the advancement of culturally responsive and technology-enhanced pedagogy in higher education.

1.4 State Hypotheses and Their Correspondence to Research Design

This study aims to develop a literary appreciation learning model that integrates CRT principles with 3D Flipbook media and to examine its effectiveness in improving the literary appreciation skills of PGSD students.

To ensure a systematic investigation, the study is guided by the following research questions:

1. To what extent is the developed CRT-based 3D Flipbook media model valid in terms of content and instructional design?
2. How effective is the model in improving students' literary appreciation compared to conventional instruction?
3. How do students respond to the implementation of the model in terms of engagement, cultural relevance, and learning motivation?

Based on these questions, the study operates under the following assumptions/hypotheses:

1. The developed model is valid in terms of content and instructional design.
2. The CRT-based 3D Flipbook model is more effective than conventional instruction in improving students' literary appreciation skills.
3. Students show positive responses toward the model in terms of engagement, cultural relevance, and learning motivation.

These hypotheses are examined through a Research and Development (R&D) design combined with effectiveness testing, allowing both product validation and empirical evaluation of learning outcomes.

2. METHOD

This study employed a Research and Development (R&D) approach aimed at developing and evaluating a literary appreciation learning model integrating Culturally Responsive Teaching (CRT) principles with 3D Flipbook media. The development procedure was adapted from Borg and Gall (2003) and simplified into five stages: needs analysis, model design, product development, testing and revision, and effectiveness evaluation. This approach ensures both systematic product development and empirical validation.

2.1 Identify Subsections

To ensure clarity and replicability, the method is organized into several subsections, including participant characteristics, sampling procedures, research design, instruments and measures, and experimental procedures. These subsections provide sufficient detail regarding how the study was conducted, including data collection techniques, intervention procedures, and analysis methods.

2.2 Participant (Subject) Characteristics.

The participants in this study were fifth-semester students of the Primary School Teacher Education (PGSD) students. Two groups (experimental and control) consisted of 20 students each.

2.3 Sampling Procedures

The sampling procedure in this study employed a purposive sampling technique. The participants were selected based on specific criteria, namely fifth semester students of the Primary School Teacher Education (PGSD) program who had prior experience in language and literature learning courses. This approach was chosen to ensure that participants possessed the necessary background knowledge to engage in literary appreciation activities. A total of 40 students were approached to participate in the study, and all agreed to take part, resulting in a 100% participation rate. The participants were then divided into two groups, an experimental group and a control group, each consisting of 20 students. The grouping was conducted based on existing class divisions to maintain the natural classroom setting.

The data were collected in a classroom setting at STKIP PGRI Bandar Lampung during the academic semester. The learning activities were conducted as part of regular instructional sessions, ensuring that the study did not disrupt the normal learning process. Participation in this study was voluntary, and no financial incentives were provided to the participants. Ethical considerations were carefully observed, including obtaining permission from the institution and ensuring that all participants were informed about the purpose of the study. Confidentiality and anonymity of the participants were maintained throughout the research process. This sampling procedure ensures that the participants are representative of the target population and that the data collected are valid for evaluating the effectiveness of the developed learning model.

2.3.1 Sample Size, Power, and Precision

The sample size in this study consisted of 40 students, divided equally into two groups, 20 students in the experimental group and 20 students in the control group. This sample size was considered adequate to represent the population of fifth semester students in the Primary School Teacher Education (PGSD) program involved in

literary learning. The distribution of participants into two groups allowed for a comparison between the implementation of the CRT-based 3D Flipbook learning model and conventional teaching methods. Each group received different instructional treatments, enabling the researcher to examine the effectiveness of the developed model through comparative analysis. The achieved sample reflects the characteristics of the target population, as all participants were drawn from the same academic level and study program. Therefore, no significant differences were identified between the sample and the intended population in terms of academic background and learning experience.

However, the relatively small sample size may limit the generalizability of the findings. As a result, the conclusions of this study are primarily applicable to similar educational contexts and should be interpreted within the scope of the sample used.

2.3.2 Measures and Covariates

The primary outcome measure in this study were collected using multiple methods, including classroom observations, questionnaires, and pre-test and post-test assessments. Observations were conducted to examine students' participation and interaction during the learning process, while questionnaires were used to gather students' perceptions of the learning experience. To ensure the quality of the measurements, the instruments were validated by experts in language education and instructional media before being implemented in the study. Revisions were made based on expert feedback to improve the clarity and relevance of the items. In addition, consistent administration procedures were applied during data collection to enhance reliability.

2.3.3 Research Design

This study employed a quasi-experimental research design with a between subjects approach. The participants were assigned to two different conditions, an experimental group and a control group. The experimental group received instruction using the CRT-based 3D Flipbook learning model, while the control group was taught using conventional lecture-based methods. The assignment of participants to each group was conducted based on existing class groupings rather than random assignment. This approach was chosen to maintain the natural classroom setting and to ensure the feasibility of the research implementation in an educational context. The study utilized a pre-test and post-test design to measure the effectiveness of the intervention. Both groups were given a pre-test before the treatment to assess their initial level of literary appreciation skills. After the implementation of the learning model, a post-test was administered to evaluate any improvement in students' performance.

This design allows for comparison between groups to determine the impact of the CRT-based 3D Flipbook model on students' literary appreciation skills. Therefore, the research design provides a systematic way to examine causal relationships between the instructional model and learning outcomes, although it may have limitations related to the absence of randomization.

2.3.4 Experimental Manipulations or Interventions

The experimental group was instructed using a literary appreciation learning model based on Culturally Responsive Teaching (CRT) supported by 3D Flipbook media, while the control group received conventional instruction characterized by teacher-centered approaches and the use of standard printed materials. The intervention was conducted in a quasi-experimental design to compare the effectiveness of the developed model with traditional teaching practices.

To evaluate the effectiveness of the intervention, students' learning gains were measured using the normalized gain (N-gain) score, which captures the relative improvement between pretest and posttest results. The N-gain was calculated using the following formula:

$$g = \frac{\text{Maximum Score} - \text{Pretest} - \text{Posttest} - \text{Pretest}}{\text{Maximum Score} - \text{Pretest}}$$

This formula, originally introduced by Richard R. Hake (1998), is widely used in educational research to assess instructional effectiveness by considering students' initial knowledge levels. The resulting gain scores were then interpreted using standard criteria: high ($g \geq 0.70$), medium ($0.30 \leq g < 0.70$), and low ($g < 0.30$), allowing for a meaningful evaluation of learning improvement.

The use of N-gain in this study provides a robust measure of the instructional impact of the CRT-based 3D Flipbook model, particularly in identifying how effectively the intervention enhances students' literary appreciation skills compared to conventional methods. The effectiveness was measured using gain score:

$$g = \frac{\text{Posttest} - \text{Pretest}}{\text{Maximum Score} - \text{Pretest}} \quad (1)$$

3. RESULTS

This study produced a literary appreciation learning model that integrates Culturally Responsive Teaching (CRT) principles with 3D Flipbook media. The results are presented according to R&D stages and experimental evaluation.

3.1 Recruitment

The study was conducted during one academic semester. The study was conducted during the 2023/2024 academic year involving undergraduate students enrolled in the Primary School Teacher Education (PGSD) program. Participants were recruited from intact classes using a quasi-experimental design. A total of 40 students participated in the effectiveness testing phase, consisting of 20 students in the experimental group and 20 students in the control group.

In addition, earlier stages of product testing involved different participant groups: three students in the one-to-one trial, 10 students in the small group trial, and 90 students in the field trial for model validation. All participants were selected based on their enrollment in literary appreciation courses, ensuring relevance to the instructional context. The follow-up period covered the duration of the intervention, including pretest, treatment sessions, and posttest.

3.2 Statistics and Data Analysis

The analysis aimed to determine the effectiveness of the CRT-based 3D Flipbook model compared to conventional instruction. The development of the literary appreciation learning model based on the Culturally Responsive Teaching (CRT) approach assisted by a 3D Flipbook media was carried out through a systematic Research and Development (R&D) process. This phase aimed to ensure that the model met the criteria of validity, practicality, and feasibility before being implemented in a broader instructional context. The validation process involved expert judgment followed by iterative field testing, including one-to-one, small group, and field trials. The findings addressing the first research question (RQ1) indicate that the developed model is highly valid, as evidenced by expert validation scores and consistent improvements across successive testing stages.

The initial validation was conducted by three experts: material, media, and language specialists. Their evaluations focused on content relevance, instructional design, visual presentation, and linguistic clarity. The results of expert validation are summarized in Table 1.

Table 1. Expert Validation Results of the Developed Learning Model

No	Expert Type	Mean Score	Percentage	Category	Conclusion
1	Material Expert	3.40	85%	Good	Valid
2	Media Expert	3.12	83.3%	Good	Valid
3	Language Expert	3.42	85.7%	Good	Valid
	Overall Mean	3.31	84.67%	Good	Feasible

As shown in Table 1, the overall mean score of 3.31 indicates that the developed model falls within the “good” category, confirming its feasibility for implementation. Although the media aspect received a slightly lower score compared to others, it remained within an acceptable range, suggesting that only minor revisions were required. Overall, the expert validation demonstrates that the model meets essential pedagogical and technical standards. Following expert validation, the model underwent a one-to-one trial involving three students with diverse academic abilities. This stage aimed to capture initial user responses regarding usability and clarity. The results are presented in Table 2.

Table 2. One-to-One Trial Results

Aspect Evaluated	Total Score	Mean Score	Percentage	Category	Interpretation
Student Response to the Developed Model	164	3.64	91.1%	Very Valid	Highly acceptable for initial implementation

The findings indicate a high level of acceptance, with a mean score of 3.64 (91.1%), categorized as “very valid.” This suggests that the model is user-friendly and effectively supports students’ engagement at the initial stage. The next stage involved a small group trial with 10 students to examine the model’s consistency in a broader setting. The results are shown in Table 3.

Table 3. Small Group Trial Results

Number of Students	Total Score	Mean Score	Percentage	Category	Interpretation
10 Students	746	3.80	93.25%	Very Valid	Consistent and feasible for broader use

As presented in Table 3, the mean score increased to 3.80 (93.25%), indicating improved user acceptance and consistency. This improvement reflects the effectiveness of revisions made after the initial trial and highlights the model's adaptability across different learners.

Finally, a field trial was conducted involving 90 students to evaluate the model's feasibility in a real classroom setting. The results are summarized in Table 4.

Table 4. Field Trial Results

Participants	Mean Score	Total Score	Percentage	Category	Interpretation
90 Students	4.82	17,347	96.37%	Very Valid	Highly feasible for large-scale implementation

The field trial results demonstrate a very high level of feasibility, with a mean score of 4.82 (96.37%). This indicates that the model is not only valid but also highly practical and effective when implemented in large-scale learning environments. Overall, the progressive increase in scores from expert validation to field trials indicates continuous refinement of the model alongside strong user acceptance. The validation process, involving three experts, confirmed a high level of validity, with all assessment scores exceeding 85%. Based on their feedback, revisions were made to enhance the visual presentation of the 3D Flipbook media and to better align the content with students' local cultural contexts. The integration of Culturally Responsive Teaching (CRT) principles with interactive 3D Flipbook media has been shown to effectively enhance student engagement, foster cultural awareness, and support deeper literary appreciation. Therefore, the developed model can be considered a valid and feasible instructional innovation for implementation in higher education.

The development process resulted in a set of integrated instructional products designed to support the implementation of the CRT-based literary appreciation model assisted by 3D Flipbook media. These products include a course module, interactive digital Flipbook media, student-generated content, and a user guideline. Each component reflects the integration of culturally responsive pedagogy with interactive digital technology to enhance students' engagement and literary understanding. The visual representations of these products are presented in Figures 1–4.



Figure 1. Course Module

This figure presents the cover of the course module titled “*Teori dan Apresiasi Sastra di Sekolah Dasar*” (Theory and Literary Appreciation in Primary School). The design reflects both modern pedagogical orientation and cultural literacy. The module serves as a key instructional resource in implementing the culturally responsive teaching model supported by 3D Flipbook media. It symbolizes the integration of structured literary theory with creative appreciation activities designed for prospective elementary school teachers.



Figure 2. Digital Flipbook

This figure represents the culturally inspired digital Flipbook cover used in literature classes. It showcases the integration of visual storytelling and local context to engage students emotionally and cognitively.



Figure 3. 3D Flipbook media

This figure shows an example of student-engaged content within the 3D Flipbook media, including problem-solving activities based on Culturally Responsive Teaching principles. The integration of interactive tasks encourages critical thinking, interpretation, and the application of literary concepts in culturally meaningful ways.



Figure 4. User guidelines

This figure illustrates the cover of the “Panduan Penggunaan Model Pembelajaran Apresiasi Sastra dengan Pendekatan *Culturally Responsive Teaching* berbantuan Flipbook 3D” (User Guide for the Literary Appreciation Learning Model with a Culturally Responsive Teaching Approach Supported by Flipbook 3D). This user guide displays a structured table outlining various strategies for implementing Culturally Responsive Teaching (CRT) in children’s literature instruction. The table is organized into multiple sections including: Text Selection, Local Perspective Integration, Collaborative Activities, Diverse Cultural Methods, and Creative Expressions. Each strategy is supported with brief explanations and contextual applications, such as integrating local stories, using reflective inquiry, incorporating traditional performances (like pantun and drama), and promoting critical thinking through comparative literary analysis. It is appropriate with the theories mentioned related to cultural application in learning [16-20]. The table serves as a pedagogical tool to guide educators in planning inclusive, culturally relevant, and engaging literary activities for young learners. It also aligns with the larger instructional model supported by 3D Flipbook media [12, 14, 21], ensuring that cultural identity and creativity are central to the learning process.

Further, the product was tested in two phases. First, a limited trial with 10 PGSD students showed that the Flipbook media was easy to use, visually appealing, and helpful in understanding the cultural context of the literary texts. Second, a field trial was conducted in an experimental class (using the CRT and Flipbook model) and a control class (using conventional methods), each with 20 students.



Figure 5. Students’ Learning Outcomes

In response to the second research question (RQ2), the results demonstrate that the developed model is significantly more effective than conventional instruction. The findings revealed a substantial improvement in literary appreciation skills among students in the experimental class compared to those in the control group. Based on mean scores, the experimental group outperformed the control group across all assessment components, including assignments (82.25), quizzes (74.33), midterm examinations (78.03), and final examinations (72.40). These results suggest that contextual and project-based learning activities supported by interactive media contribute to enhanced student performance.

Furthermore, statistical analysis using an independent samples t-test confirmed a significant difference between the two groups ($p < 0.05$), indicating that the observed improvements were attributable to the implementation of the developed model. This finding reinforces the effectiveness of integrating culturally responsive pedagogy with interactive digital media in improving students' literary appreciation outcomes.

Regarding the third research question (RQ3), student responses to the learning experience were overwhelmingly positive. Over 90% of students reported that the 3D Flipbook media enhanced engagement, comprehension, and contextual relevance. The integration of their local culture into learning materials increased emotional engagement and fostered a deeper connection with the texts.

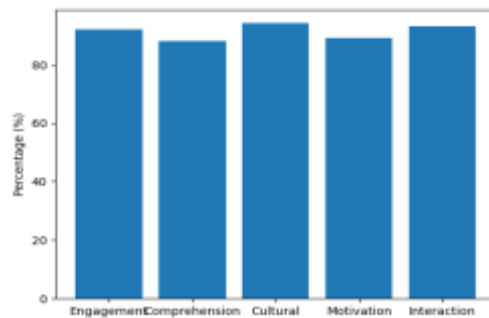


Figure 6. Students' responses to the implementation of the CRT-based 3D Flipbook model.

To further illustrate these findings, Fig. 6 presents a summary of key quantitative and qualitative results, highlighting high levels of engagement, comprehension, cultural relevance, and learning motivation. These outcomes are supported by evidence of active participation, improved visualization of narrative elements, and increased creative expression in literary learning contexts.

Furthermore, multimedia integration facilitated students' visualization of narrative elements, including setting, characters, and cultural themes. The 3D Flipbook media format enabled students to engage more actively with the content, supporting self-paced learning and encouraging creative expression through the development of their own digital literary works. These findings suggest that the use of culturally responsive and interactive digital media not only improves student engagement but also enriches the overall learning experience in literary appreciation.

4. DISCUSSION

This study aimed to develop and evaluate a literary appreciation learning model integrating Culturally Responsive Teaching (CRT) with 3D Flipbook media. The discussion addresses the three research questions (RQ1–RQ3) by linking empirical findings with relevant theoretical and empirical studies.

Regarding RQ1, the findings indicate that the developed model is valid and feasible for implementation. The expert validation results show an overall mean score of 3.31 (84.67%), categorized as “good,” confirming that the model meets pedagogical, technical, and linguistic standards. Furthermore, the iterative testing process demonstrates continuous improvement, with mean scores increasing from 3.64 in the one-to-one trial to 3.80 in the small group trial and reaching 4.82 (96.37%) in the field trial. This progressive trend reflects the effectiveness of systematic refinement, which is a key principle in Research and Development approaches as outlined by Walter R. Borg and Meredith D. Gall. The findings also align with previous studies emphasizing the importance of culturally based instructional design in enhancing the relevance and quality of learning materials (Alexon & Sukmadinata, 2010; Zain et al., 2023).

In relation to RQ2, the results demonstrate that the CRT-based 3D Flipbook model is significantly more effective than conventional instruction. The experimental group consistently outperformed the control group across all assessment components, and statistical analysis confirmed a significant difference ($p < 0.05$). In addition, the

normalized gain (N-gain) score of 0.62 (moderate category), as proposed by Richard R. Hake, further supports the effectiveness of the intervention in improving students' learning outcomes. This suggests that the integration of culturally relevant content with interactive digital media promotes meaningful learning improvement.

The effectiveness of the model can be attributed to the integration of cultural context and digital interactivity. Previous studies have shown that culturally responsive materials enhance students' engagement and perspective-taking abilities (Abacioglu et al., 2020; Azhary & Fatimah, 2024). In addition, the use of Flipbook-based digital media has been proven to support visualization, creativity, and comprehension in literary learning (Gusman et al., 2021; Yusra, 2022; Wicaksono et al., 2021). These findings indicate that the combination of CRT and digital media creates a more engaging and effective learning environment compared to conventional approaches.

Concerning RQ3, the findings reveal overwhelmingly positive student responses, with more than 90% of students reporting increased engagement, improved comprehension, and stronger cultural relevance. This supports previous research highlighting the importance of integrating local culture into learning materials to enhance students' emotional and cognitive engagement (Susiana, 2017; Siregar et al., 2023). The interactive nature of the 3D Flipbook media also enables students to participate actively in the learning process, fostering creativity and independent learning (Yuhdi & Amalia, 2018; Juwati et al., 2021).

From a theoretical perspective, the findings affirm that literary appreciation is more meaningful when students are actively involved in interpreting texts and connecting them to their own cultural contexts. This is consistent with the concept of literary appreciation proposed by Aminuddin (1987) and Sumardjo and Saini (1986), which emphasize the importance of reader engagement in constructing meaning. Furthermore, the integration of culturally responsive pedagogy aligns with the framework proposed by Geneva Gay, which highlights the role of cultural relevance in promoting inclusive and effective learning environments.

Overall, the findings demonstrate that culturally contextualized digital learning not only improves students' interpretative abilities but also enhances engagement and motivation. The use of interactive Flipbook media facilitates visualization and deeper understanding of literary elements, enabling students to move from passive reception to active participation in literary analysis.

Therefore, this study contributes a practical and innovative instructional model that integrates cultural context, digital technology, and student-centered learning. The model offers a meaningful approach to improving literary appreciation in higher education and supports the development of more inclusive, engaging, and effective learning practices.

Additionally, this study has several limitations. First, the sample size was limited to one institution, which may affect generalizability. Second, the study focused only on short-term learning outcomes. For future research, several directions are recommended. First, future studies should involve larger and more diverse samples across multiple institutions to enhance generalizability. Second, longitudinal research is needed to examine the sustained impact of the model on students' higher-order thinking and literary appreciation skills over time. Third, further studies could explore the integration of this model in different subject areas or educational levels to assess its adaptability. Finally, future research may incorporate more advanced digital technologies or hybrid learning environments to further optimize the effectiveness of culturally responsive and technology enhanced learning.

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