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Integrating Culturally Responsive Teaching In The Development of Digital Students' Worksheet For EFL Writing

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Abstract

This study aims to develop interactive e-worksheets as a learning medium for narrative text material for grade XI students using the ADDIE model. Based on the analysis of teachers and students, it was found that students often have difficulty in understanding the structure and elements of narrative texts and lack of interest in traditional learning. Therefore, e-worksheets were developed by utilizing digital technology through the Liveworksheets platform, which provides interactive activities to improve students' writing skills. This e-worksheet is designed with a Contextual Teaching and Learning (CTL) approach and in integration to culturally responsive teaching, which was adapted to the Indonesian cultural context, to make the material easier to comprehend by EFL students. At the Implementation stage, the product was tested on students with an average score of 86.61 from student responses, 90.90 from material experts, and 90.38 from media experts, indicating that the product is feasible to use. Evaluation from teachers shows that the use of e-worksheets can improve students' writing skills and motivation in understanding narrative texts. Overall, this study confirms that the implementation of technology-based interactive e-worksheets can serve as an effective and innovative alternative to enhance the quality of narrative text learning in schools. Further, some pedagogical suggestions are also highlighted.

Keywords: *Culturally Responsive Teaching; Digital teaching media; Research and development; Student motivation; Narrative text; Writing skill*



1. Introduction

In Indonesian EFL setting, teachers and students in formal education have frequently encountered various challenges in English language teaching and learning, to be specific in teaching writing (Fajaryani et al., 2021; Mulyono & Artarini, 2021). As one of productive skills, writing skill is categorized as a complex skill to be mastered (Pitukwong & Saraiwang, 2024; Zakaria & Sulaiman, 2025). In formal education which is mostly designed in large class size with limited time allotment and learning sources, students usually have lack opportunity to practice writing (Amalia et al., 2021). They also commonly perceived writing as sophisticated task and time-consuming as writing requires complex linguistic structures (Zakaria & Sulaiman, 2025).

In observing those challenges in teaching and learning of English writing, one of most significant consequences is the noticeable lack of student motivation. Limited access to various learning recourses and inadequate opportunities to practice might contribute negatively to students' motivation in writing (Wang & Troia, 2023). This lack of motivation becomes a major barrier to language acquisition, as motivation is a key factor that drives student engagement, persistence, and success (Aufa & Khoiriyah; 2025; Rezai et al., 2025; Khoiriyah et al., 2025;). As a result, one of the most pressing instructional challenges for English teachers is finding effective ways to engage and motivate students in the learning process.

In order to address this issue, the integration of culturally responsive teaching (henceforth CRT) into the development of digital teaching media can be proposed as a promising approach. A bulk of literature reviews define CRT in various ways (Chuang et al., 2020; D'Andrea Martínez et al., 2023; Kaslati Siregar et al., 2023; Lau & Shea, 2024; Liao & Li, 2023; Zorba, 2020), nonetheless, to this research, culturally responsive teaching refers to one of teaching styles "with an emphasis on honoring and leveraging students' cultural identities and experiences as assets for learning" (Grab, 2025). In addition to that, Najah et al. (2025) assert that cultural responsive teaching is the integration of students' cultural characteristics and cultural backgrounds through the teaching process. In English language teaching, the CRT framework has emphasized the inclusion of students' cultural background, values and experiences in the learning process. Learning process become more meaningful when the students are provided by some learning materials related to their cultural background and their real lives. Take an example, by adapting local stories or local folklore, the students get familiar with the materials, enhancing their engagement in learning process (Besonia et al., 2023). By integrating cultural values, the teaching media are developed using familiar cultural references, indigenous context and relevant content to students. Thus, the English teaching media is expected to be more relatable and meaningful.

Likewise, to address the limited time allotment in writing activities, the utilization of digital learning media might be beneficial for students as it provides more flexibility. Therefore, in this study, digital technology was used to create teaching materials in the form of e-worksheet. As asserted by Tressyalina et al. (2023), E-Worksheet is a digital

device designed to improve learning outcomes by providing interactive and interesting activities for students. Electronic worksheets are intended to help students understand a topic in more depth, make them more active, and help them learn more organized. In this study, e-worksheets were designed using the Liveworksheets web. Liveworksheets is a website that can be used to design e-worksheets that are easily accessible using electronic devices such as mobile phones, tablets, and computers (Huynh et al., 2023). The worksheet design is effective because it can contain interesting text, audio, and images. The most important consideration is that this e-worksheet can be accessed in anytime and everywhere. Therefore, students can learn in their pace, in their most convenient time and out of their school time, providing more opportunities to practice their writing skill.

Some evidence in educational research have revealed a positive effect of CRT on student engagement and motivation. Ebe (2025) conducted explorative research regarding the students' perception on culturally relevant books in bilingual classes. In their research, Latino's students expressed their increased interest in reading more books that were integrated into their realities or portrayed cultural traditions. In Chinese higher education context, Liao and Li (2023) examined the implementation of CRT in English language teaching for foreign language department students. Their research concluded that CRT is not only beneficial for students in enhancing their intercultural competence but also effective in engaging students to learn about the materials, especially in oral English classes. Meanwhile, in Iranian context, a study from Mahmoudi-Dehaki and Nasr-Esfahani (2025) affirmed the positive impact of the integration of CRT in ELT teaching for pre-teen learners. By utilizing culturally nuanced learning resources, including bilingual storybooks and intercultural handbook, students showed significant improvement in their English proficiency as well as their academic engagement. Overall, those studies collectively demonstrate the integration of students' cultural background in implementation of CRT in various educational context, effectively fostering student engagement, motivation as well as language learning outcomes.

In Indonesian context, some researchers also have attempted to conduct similar research. Ndandara and Hambandima (2021) reported the implementation of CRT in teaching drama. Though the integration of local wisdom-based learning materials in preparing drama performance, students expressed their sense of belonging, therefore, they felt motivated. The students gain knowledge regarding their cultural heritage and appreciate their tribes' folklores at the same time. In line with that, Yuliantari and Huda (2023) asserted that the implementation of CRT in English learning in secondary school level. Based on the classroom observation and interview, students echoed that they felt easier to comprehend the subject matter and actively participate in classroom discussions that relate to their cultural background. These result positive impact on impact on student engagement and language proficiency. In the same vein, based on the

point of view from both teachers and students, research from Rahaman (2024) also confirmed the positive relationship between CRT and students' engagement in learning process.

Although there is a plethora of research that have documented the potential of CRT in related to student motivation, research in developing teaching materials, to be specific for writing skills is still underexplored. Thus, there is immediate need to conduct further research on how this CRT framework is possible to be integrated in designing English teaching materials to foster students' motivation in learning process. So far, current learning media have been developed using digital technology. The use of digital technology in learning is believed to be very effective and can stimulate students' interest in learning (Han, 2025; Khoiriyah et al., 2022; Khoiriyah & Mashuri, 2025; Khoiriyah et al., 2025; Mukhemar et al., 2022; Viteri & Páez-Quinde, 2024). Digital technology in education involves the integration of digital resources, devices, and systems to improve the teaching and learning process.

Together, the incorporation of culturally responsive teaching framework and digital teaching media is expected to stimulate students' motivation in writing skill activities. To this research, the design of digital teaching media is piloted for EFL students in one of state secondary school in East Java, Indonesia. In a nutshell, this current research aims to report the development of digital learning media in incorporation with Culturally Responsive Teaching (CRT) for enhancing students' motivation in writing English, to be specific for secondary school students. This research is objected to contribute to suggest some pedagogical recommendation in designing culturally responsive instructional teaching media that can be adapted in a variety of Indonesian EFL contexts.

2. Methods

2.1 Research method

This research employed Research and Development (R&D) approach to develop student e-worksheet for writing, by integrating the principles of Culturally Responsive Teaching. In addition, the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) model coined by Martatiana et al. (2023) was chosen as it has been widely adapted in various educational context (Adisti et al., 2023; Khoiriyah et al., 2025; Yüzen). As a comprehensive model, the ADDIE framework offers iterative development and continuous evaluation during the development process, so that it ensures that the designed teaching media is aligned with the educational objectives. In this research, the primary aims in developing e-worksheet is to integrate the cultural background of students in teaching materials that finally is expected to stimulate students in engaging learning process, to be specific in writing skills.

2.2 Research setting and participants

This research was conducted when one of the researchers was participating in the Kampus Mengajar program in one of regions in Indonesia. Kampus Mengajar is one of

an educational initiative in Indonesia aimed at addressing teacher shortages and improving educational quality in underserved areas (Rahmawati et al., 2024). This program involves university students volunteering to teach in schools with insufficient teaching staff, fostering creativity and innovation in the learning process. During this program, the researcher analyzed the obstacles faced by teachers, one of which was the lack of student interest in writing activities. Thus, the researcher decided to develop digital teaching materials that could increase student activity in the learning process.

This research was carried out in one of state senior high schools in sub-urban area of Malang regency. The participants cover several related stakeholders including a school principal, an English teacher and 35 students in one of selected classes. In addition to that, two experts in media and English teaching also were involved.

2.3 Data collection procedure and instruments

Based on educational philosophy, ADDIE implementation must be student-centered, innovative, authentic and inspiring. The stages of the ADDIE model process are interrelated. Therefore, this model must be used gradually and thoroughly to ensure the creation of effective learning products. These steps are as follows:

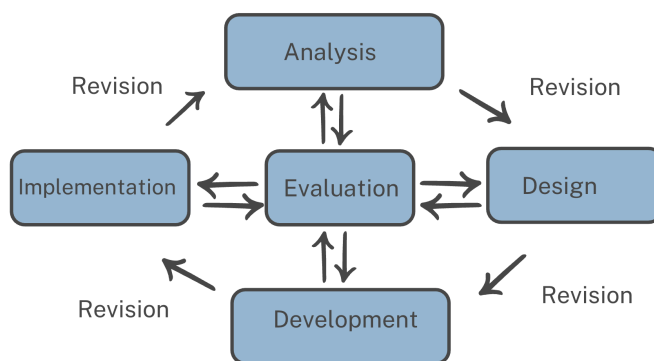


Figure 1. Research Procedure

As it was depicted on Figure 1, in order to create E-worksheets that are culturally responsive English teaching materials, the ADDIE method was utilized in this project through five organized stages. To find problems with the current teaching materials and identify potential improvements, performance analysis was done first in the analysis phase. An analysis of needs to evaluate students' learning needs and the resources required to improve learning quality and student performance came next.

Researchers chose suitable assessment techniques and described the E-worksheets' structure during the Design phase, taking into account layout, content, and language considerations. Using the Live worksheets website and digital design tools, e-worksheets were created during the development phase. The experts' comments improved the materials, and the comparison between the old and new versions enhanced the quality.

The evaluation of the designed products in real classroom settings was conducted by both teachers and students. The researchers gathered feedback from the implementation phase to revise and finalize the E-Worksheets during the evaluation phase. The iterative process resulted in materials that were pedagogically effective and culturally appropriate to meet the needs of students in classroom realities.

2.4 Data analysis

The research employed both qualitative and quantitative data analysis techniques to achieve a complete understanding of the learning materials' effectiveness. Teachers and students completed questionnaires after implementing the E-worksheets to gather quantitative data. The questionnaire included 5 Likert-scale items to assess clarity, engagement, cultural relevance, and general satisfaction with the designed learning materials. The evaluation of the data used descriptive statistical methods, which included mean calculations and percentage analysis. The collected data enabled the researcher to identify general patterns in participant opinions about the materials, through, which they obtained a clear overview of their responses.

However, in order to collect qualitative data from a subset of the population, the study included semi-structured interviews with educators and students. Through the interviews, the experiences, preferences, and recommendations for improvement of the participants were better understood. The interview data were transcribed prior to the application of thematic analysis by the researchers. The process involved sorting out new themes, while assigning codes to responses, analyzing data to identify repeated patterns, inner thoughts, and fundamental criticisms. The study used data triangulation to validate findings, while assessing the classroom effectiveness of culturally responsive E-worksheets through both data types.

3. Results and Discussions

The research findings are presented in section, which describes the development and implementation of a digital student worksheet (E-worksheet) for EFL writing through the ADDIE instructional design paradigm and culturally responsive teaching (CRT) principles. The findings are arranged in accordance with the Analyze, Design, Develop, Implement, and Evaluate (ADDIE) model phases, emphasizing the procedures used and the results attained at each stage. The effectiveness, cultural relevance, and user impressions of the created E-worksheets are evaluated through the analysis of both quantitative data from student and teacher questionnaires and qualitative data from interviews.

3.1 Phase 1: Analysis of Students and English Teacher

This research project involves schools to find out the needs and problems of students and teachers in narrative text learning. Hence, this analysis stage was carried out by interviewing English teachers. The results of the interview stated that writing skills in narrative text material must be improved so that students can learn directly how to use the right linguistic elements, understand the structure of the text, and express ideas and

creativity. In the interview session, the English teacher stated that teaching narrative text material had been attempted using several forms of media and interesting teaching materials to improve students' writing skills. Therefore, the English teacher stated that new innovations are needed to support the learning process.

As evidenced by the following quote:

"While teaching narrative, when giving them materials, I refer to books. The texts are taken from books, and usually I use PPT to explain them."

"They have difficulty with writing because they still can't do tenses, so they have difficulty with writing, sometimes they get confused if they've been taught verb 1 but they're confused about verb 2, so every time they want to have a meeting, when I take attendance, I ask one child one verb."

"Students definitely need interactive media, which has visuals. Because if there are no visuals, when I usually teach, they just listen. If there are visuals, for example there are pictures or they are given activities, whether to put together a story or something based on pictures, they understand it more easily. So they prefer media that has visuals."

From the statement above, it can be concluded that English teachers still rarely use interactive electronic media in delivering narrative text material. Meanwhile, teachers still experience several problems in narrative text learning, that are the lack of student interest in writing texts, students' writing skills, and students' understanding of the material. Therefore, the English teacher agreed to have research in schools to develop teaching materials in the form of e-worksheets aimed at increasing student interest in understanding the material and writing narrative texts.

This study highlights three significant issues in student narrative text writing: errors in tense usage, inadequate organization of ideas, and a lack of engagement due to the absence of interactive multimedia elements. The issues outlined in this study align with the findings of Ebe (2025), who showed that culturally relevant resources boost student motivation and understanding. Umeji. (2025) found that insufficient resources lead to decreased student interest and learning attitudes. The research by Liao and Li (2023) demonstrates that culturally responsive teaching methods lead to better intercultural competence and higher student participation. Neglecting students' cultural backgrounds may hinder their capacity for effective communication (Abdalla & Moussa, 2024). Mahmoudi-Dehaki and Nasr-Esfahani (2025) conducted a study to demonstrate that the incorporation of bilingual storybooks alongside culturally pertinent digital resources significantly enhances students' language development and maintains their engagement. Stofellsma et al. (2025) state that the lack of these elements presents obstacles that hinder the availability of such learning opportunities. Salgado et al. (2024) reveal that the obstacles identified are interconnected, illustrating a more extensive pattern within EFL learning contexts. The lack of culturally relevant interactive materials hinders

language development and diminishes student engagement (Salgado et al., 2024). The study confirms the integration in secondary school environments. These resources assist students in navigating language challenges while fostering creativity and maintaining their engagement in narrative writing. Addressing these obstacles necessitates transcending mere cultural integration to create learning experiences that actively engage students and offer context-rich opportunities, enabling them to become assured narrators of their narratives.

3.2 Phase 2: Design of the product

At this stage, researchers developed a product in the form of e-worksheets based on data obtained in the analysis phase of students and English teachers. Product development was carried out according to the level of student understanding of the material and based on several English teaching materials for grade XI. Thus, the e-worksheets developed include main materials such as characteristics of narrative texts, narrative text structures, understanding the contents of narrative texts, linguistic elements of narrative texts, and writing narrative texts. To describe the contents of the product in more detail, here are the e-worksheets units.

Table 1. The design of the e-worksheet

Activities	Theme	Contain
Pre-activity	The Legend of Crying Stone	Interesting storytelling video to stimulate student's interest in learning.
Main Activity	<ol style="list-style-type: none"> 1. The Legend of Surabaya 2. Ande Ande Lumut 3. Timun Mas 	<ol style="list-style-type: none"> 1. Matching paragraphs with their generic structures, true or false questions based on text, and quizzes about the intrinsic elements of the text. 2. Fill the blanks language features, drag and drop character's name and pictures, and quizzes about the intrinsic elements of the text. 3. Fill in the blanks based on listening to audio, sort images based on text, and quizzes about the intrinsic elements of the text.
Post-activity	Writing Narrative Text	Writing texts based on students' understanding after completing previous activities.

In the table 1, it can be seen that each main material and activity developed has been well planned based on analysis references and teaching materials by focusing the contents of the product on understanding narrative text material and improving students' narrative text writing skills. In the e-worksheets that have been developed, the existence of pre-activity is to arouse students' interest in learning the material by watching interesting

storytelling videos. Then in the main activities which are divided into 3 have been designed to improve students' understanding and improve students' writing skills with interactive activities before students work on post-activity. Finally, in the post activity, students can write narrative texts based on their own imagination with correct linguistic elements and structure.

This study presents the development of electronic worksheets designed with an interactive and structured methodology to enhance students' narrative writing. The worksheets incorporate pre-, main, and post-lesson activities that are specifically aligned with learner needs and lesson objectives (Cheung, 2024; Gautami et al., 2025). According to Mahmoudi-Dehaki and Nasr-Esfahani (2025) illustrated that the use of culturally relevant materials and organized activity amplifies the writing skills of EFL students. The worksheets integrate multimedia storytelling with multilingual storybooks, enhancing students' existing knowledge and maintaining their engagement. The studies conducted by Jain (2024) reveal that students often struggle with motivation and storytelling skills, as well as the practical use of language, largely due to their limited access to a variety of culturally enriching resources. The core goals, which are about understanding and structuring text and language, fit with the task-based culturally responsive framework to get students interested and make them use language (Liao & Li, 2023). This research distinguishes itself from earlier studies by employing Liveworksheets to apply CRT principles via digital self-directed instruction. The digital teaching approach offers numerous benefits compared to conventional print or slide-based instruction, facilitating direct student engagement, enhancing feedback and visual support, and promoting learner autonomy.

3.3 Phase 3: Development of interactive e-worksheets

In this phase, the development of e-worksheets is done by dividing it into 3 parts, namely pre-activity, main activity, and post-activity. The division is done to maximize students' understanding of the material and attract students' interest in understanding the material. The development of activities in e-worksheets is based on the needs of teachers and students. The material guidelines are adjusted to several senior high school class XI textbooks.

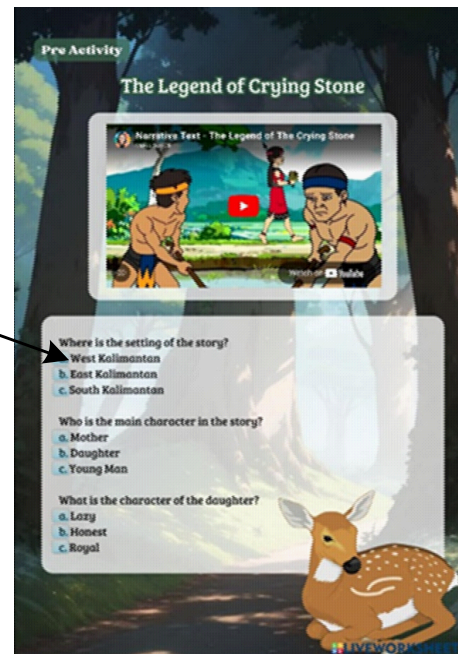
In this stage, several revisions were made based on suggestions from material and media experts. These revisions aimed to improve the quality of the product by addressing various aspects, such as enhancing the visual design to make it more attractive, adding interactive activities to increase student engagement, refining linguistic elements for better clarity and appropriateness, adjusting material specifications to align with curriculum standards, and revising quiz questions to ensure clarity and relevance. All these improvements were carried out to perfect the developed product.

a. Pre-Activity

Pre-activity is used to prepare students to enter the main activity. This section contains activities that are useful for motivating students to learn. Therefore, the

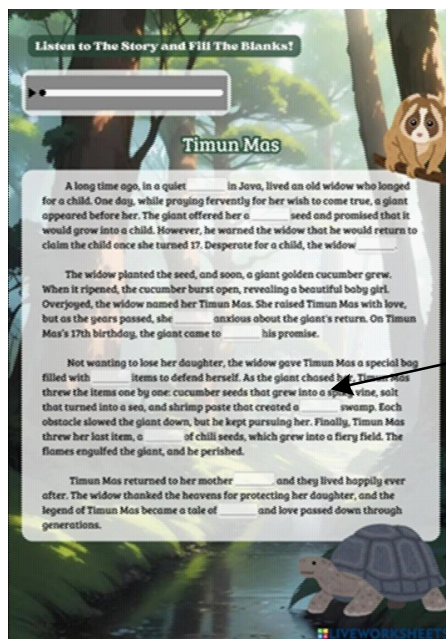
developer uses video media to attract students' interest. The video presented is a storytelling narrative text entitled Crying Stone. Students are required to analyse the video, then fill in several questions about the video that has been watched.

Pre-activity in the form of an interesting storytelling video entitled The Legend of Crying Stone to stimulate students' interest in learning



b. Main Activity

Main activity is the core of the material presented in e-worksheets. In the main activity section, the developer presents various interesting and interactive activities to improve students' writing skills in narrative text material. There are various different activities in the main activity such as drawing lines and matching text structures, true or false after analysing the text, fill the blank language features used in narrative text, matching character images after analysing the text, listening to storytelling audio to fill the blank, and sorting images according to the storyline that occurs. In addition, the developer also inserts quizzes in each text regarding the intrinsic elements in each text presented.



Fill the blanks based on audio story on Timun Mas text to improve student's vocabularies in narrative text



Sequence the storyline pictures based on the Timun Mas text that has been understood.

c. Post Activity

This section aims to find out and measure the level of student understanding, so the developer uses an evaluation method. The evaluation developed is in the form of a column to write their respective narrative texts according to the structure, intrinsic elements, and language features that they have understood in the main activity section.

d. Assessment and Limitation

In this section, the website used has an automatic assessment that will make it easier for teachers. Automatic assessment has been applied to interactive pages, while in the post-activity section where students write their own narrative text, it will be a non-automatic part because it is specifically for teachers to evaluate

students' writing skills on this material. While the limit in working on these e-worksheets can be flexible based on teacher instructions. So, this product can be effectively done in one go, and can be done in several times that will not eliminate previous work.

The interactive E-Worksheets design included specific sections for pre-, during-, and post-activities, which engaged students and supported the development of their narrative writing abilities (Syar et al., 2023), while the organized structure reflected the scaffolding method that, as Mahmoudi-Dehaki and Nasr-Esfahani (2025) found, effectively advances language proficiency through culturally responsive visual and auditory tasks. Engaging in interactive digital media activities such as matching, filling in gaps, and sorting can truly captivate students' attention and enhance their ability to retain knowledge (Liao and Li, 2023). The portal features automated tests, multimedia narrative movies, and interactive activities that align with digital literacy requirements and ongoing initiatives. In areas with limited resources, the absence of reliable internet access and sufficient devices presents a significant challenge to utilizing this platform. The extent to which this platform is effective is heavily dependent on the level of readiness of educators to utilize technology, according to Afzal et al. (2023). Many multimedia activities exist, and they might feel overwhelming for students who struggle with computers or have limited English proficiency (Elsayed, 2025).

4.4 Phase 4: Implementation of the product into classroom practices

This stage is carried out to determine the effectiveness of the application of e-worksheets to teachers and students in direct learning at school. The application was carried out in class XI of SMA Widya Dharma Turen with 18 students learning narrative text material. Here is a description of the activities:

Figure 4.3 Figure of Implementation e-worksheets



After implementing e-worksheets in learning, students were asked to provide feedback by filling out a questionnaire that had been provided regarding their experience in using e-worksheets. The results of student responses are shown as follows.

Table 4.1 The Results of Student Responses

	Practical Considerations	Percentage	1	2	3	4	5	Category
1	E-worksheets make me easier to learn narrative text	91,1%				8	10	Highly Feasible
2	The language used on e-worksheets is understandable	86,6%				12	6	Highly Feasible
3	E-worksheets is easy to accessed	84,4%				14	4	Highly Feasible
Layout and design								
4	The medias (picture, audio, and video) on the e-worksheets are clear	86,6%				12	6	Highly Feasible
5	Medias (picture, audio, and video) on the e-worksheets are interesting	84,4%				14	4	Highly Feasible
6	Instructions for completing the questions on the e-worksheets are clear.	88,8%				10	8	Highly Feasible
Activities								
7	Questions and activities on e-worksheets are interactive	82,2%				16	2	Highly Feasible
8	I can easily understand the material on e-worksheets	86,6%				12	6	Highly Feasible
9	I don't find it difficult to work on the questions on the e-worksheets.	86,6%				12	6	Highly Feasible
Overall intention to use								
10	E-worksheets can increase my enthusiasm in learning narrative text	88,8%				10	8	Highly Feasible
Total average						86,61%		

The table above shows that the use of e-worksheets teaching materials is included in the highly feasible category with an average percentage of 86,61. This means that e-worksheets in this development research are very effective in terms of practical considerations, layout and design, activities, and overall intention to use. It can be concluded that these e-worksheets can be used in target schools. In addition to receiving feedback from students, these e-worksheets have also been validated by media experts and material experts. The results are as follows:

4.4.1 Validation result of material expert

Table 4.2 Validation result of material expert

No	Scoring Aspect	Scoring Criteria	1	2	3	4
1	Material	Suitability of the material				√
		Correctness of the concepts and definitions used			√	
		Accuracy of the material on the E-worksheets				√
		Accuracy of the questions on the E-worksheets				√
		Suitability of the material to the students' English level			√	
		Facilitates students to learn writing				√
		Facilitates students to understand narrative text material				√
		Suitability of the media (pictures, audio, and video) used				√
2	Teaching and Learning	Motivates students to learn				√
		Encourages independent learning			√	
		Encourages students to ask questions				√

Notes: 1= Poor, 2= Fair, 3=Good, 4=Excellent

Total Score = 4 (scales x 11 items) = 44

Score = 40 (score achieved)/44 (total score) x 100 = **90,90%**

Media Expert Profile: Khoiriyah, M.A.

4.4.2 Validation result of media expert

Table 4.3 Validation result of media expert

No	Scoring Aspect	Scoring Criteria	1	2	3	4
1	Practicality	Suitability for use in class				√
		Ease of access				√

		Suitable for independent learning	✓
		Interactive	✓
2	Appearance	Suitability of E-worksheets design	✓
		Suitability of images, audio, and video	✓
		Clarity of images, audio, and video	✓
		Attractiveness of images, audio, and video	✓
		Overall color selection	✓
3	Language	Clarity of language	✓
		Clarity of commands and questions	✓
		Sentence structure	✓
		Correctness of spelling and diction	✓

Notes: 1= Poor, 2= Fair, 3=Good, 4=Excellent

Total Score = 4 (scales x 13 items) = 52

Score = 47 (score achieved)/52 (total score) x 100 = **90,38%**

The implementation stage demonstrated that interactive E-worksheets garnered significant endorsement for application in EFL lessons. The product garnered exceptional evaluations for its sustainability and instructional value from both expert validators and students alike. The e-worksheets garnered favorable responses from students, who appreciated their clarity, interactivity, accessibility, and motivational aspects, achieving a satisfaction rate of 86.61%. The findings align with the studies conducted by Mahmoudi-Dehaki and Nasr-Esfahani (2025) as well as Ebe (2025), indicating that culturally relevant and interactive information enhances student engagement and comprehension. Research conducted by Liao and Li (2023) indicates that students demonstrated increased engagement and agency when provided with digital resources specifically designed to align with their cultural and linguistic backgrounds. The current study contributes to the existing body of research by demonstrating that these benefits are effective in senior high school EFL courses beyond bilingual and higher education settings. However, relying on culturally specific online resources might restrict scaling in varied or resource-limited settings. For successful adoption, teachers need to have the necessary skills and training to modify materials effectively (Dristas & Trigka, 2025; Ofosu-asare, 2024). Additionally, although this approach enhances engagement, it might overlook the more profound linguistic

challenges faced by students with lower proficiency levels. This indicates a necessity for supplementary instructional strategies (Liu & Ma, 2025).

Our research reveals that digital CRT-based materials can be permanently integrated into the broader curriculum to address ongoing narrative writing teaching challenges. The positive student reactions to interactive tests and narrative videos demonstrate that multimodal learning environments play a crucial role in supporting diverse learning preferences (Anis & Khan, 2023). Experts in the field of media and materials concluded that, overall, 90.90 percent of the worksheets met or exceeded expectations in terms of quality and curricular alignment. They also found that 90.38% of them were effective for learning. Yet, different institutions may have different levels of technical support and teacher readiness, which are crucial for long-term integration (Kim & Jang, 2020). Expert validation also shows high initial quality, but the effect in the actual world can be different based on students' digital proficiency and the resources available to keep the materials up-to-date. Expert validation also shows high initial quality, but the effect in the actual world can be different based on students' digital proficiency and the resources available to keep the materials up-to-date.

The deployment process revealed no major unexpected findings yet the students' strong preference for dynamic media exceeded initial expectations because they showed intense engagement with visual and auditory elements of the worksheets. The discovery has major research implications because it indicates that combining gamified elements with audiovisual storytelling could lead to better results. The structured design model (ADDIE) enabled continuous refinement and input responsiveness, which strengthened the final product's classroom applicability.

4.5 Phase 5: Evaluation of the product implementation

In the evaluation stage, the researcher asked for the opinion of the English subject teacher through interview section. He gave a positive statement which was then narrated as follows;

I am happy with the existence of this teaching material. The e-worksheets that have been developed have covered the learning needs and are in accordance with the students' English level. In the future, this teaching material can probably be applied in schools to support learning in grade 11.

The script above shows that the school or English subject teacher considers that e-worksheets can be teaching materials that can be used continuously because they are in accordance with the learning needs and in accordance with the students' level of understanding in the narrative text material. In addition, there are several discussions regarding improving students' writing skills which are narrated as follows;

Regarding students' writing skills, I was surprised that students could easily understand and remember the use of text structures well. I also saw students working on questions well and actively because the contents of the e-worksheets were interesting, even students wrote new texts without feeling forced.

From the script above, it can be concluded that e-worksheets can foster students' motivation in learning because of their attractiveness. In addition, it has been proven that e-worksheets can improve students' writing skills in narrative text material.

In a similar vein, Liao and Li (2023) demonstrated that providing contextually and culturally relevant resources led to enhancements in students' confidence and expressiveness during speaking activities. This investigation is notable for its specific emphasis on writing competencies. The instructor observed that students demonstrated a remarkable ability to compose creative narratives effortlessly and exhibited an enhanced capacity to recall text structures, suggesting a deep assimilation of the material (Qatrinada & Apoko, 2024). This research demonstrates that interactive, CRT-based digital tools can transform the EFL classroom into a more engaging, student-centered, and effective learning environment compared to traditional text-based training, which often faces criticism for its rigidity and lack of appeal (Popov et al., 2021).

4. Conclusion

This research sought to use the ADDIE instructional design approach and culturally responsive teaching (CRT) principles to develop and evaluate an E-worksheet for teaching EFL students how to write narrative texts. This research set out to address a need in the field by examining the current state of culturally relevant instructional materials and their potential to inspire and engage students to write better. Results demonstrated that the created E-worksheets helped both instructors and students overcome challenges in understanding narrative texts, particularly in the areas of grammatical understanding, text structure, and creative expression. Based on both quantitative and qualitative data, the approach received high feasibility ratings, was verified by professionals, and showed potential for broader classroom use.

The findings presented here hold significant relevance for EFL instruction, suggesting that the integration of digital technology with CRT principles can improve learning opportunities, boost student engagement, and refine writing skills. The investigation highlights the importance of offering interactive, multimedia resources that align with the cultural contexts of learners and adhere to curriculum standards. The study faces limitations due to its small sample size and the focus on a single school setting, which may hinder the generalisability of the findings. Moreover, the impact of utilising E-worksheets on the development of writing skills over time remains unclear.

Future investigations may explore the practicality of implementing digital worksheets grounded in CRTs across diverse classroom environments and educational stages to assess their scalability and adaptability. Exploring the incorporation of advanced features like gamification, adaptive learning technologies, and multilingual resources could significantly improve inclusion and engagement. This comprehensive study establishes a foundation for progressive, learner-focused teaching methods in the digital age and

provides valuable insights for the creation and application of culturally aware online resources for English language instruction as a foreign language.

Conflicts of Interest

Authors declare no conflict of interest.

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