

Enhancing students' holistic reading through locally-enriched learning materials

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ABSTRACT

Learning materials that are suitable for the learning environment and resonate with students' experiences play a crucial role in helping them learn English. A major obstacle in learning English is the scarcity of learning resources that incorporate local content, resulting in low holistic reading skills. This study aims to examine the effectiveness of locally-enriched learning materials on students' holistic reading and to explore their responses. This study uses a mixed-method approach with a sample of 136 seventh-grade students in Indonesia. Data were gathered using tests, observation, and questionnaires, and analyzed using t-tests and descriptive statistics. The findings indicate that locally-enriched learning materials effectively enhance students' holistic reading. This improvement is achieved by incorporating oral and written language skills, integrating local culture and daily activities into text discourse, and improving reading comprehension through vocabulary mastery, identifying main ideas, accuracy in grammar, and scanning. Learning enhancement was reflected in stages in English language teaching (ELT), the use of locally-enriched learning materials, material variations, teaching approach, participation and reading skill. Future research should concentrate on predicting text content and skimming in holistic reading. This study recommends the stakeholders to make policies in promoting local content as supporting learning materials in ELT.

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1. INTRODUCTION

Students struggle to comprehend texts at a deep level primarily due to the absence of local cultural context that fits with the learning goals of English language teaching (ELT) materials. The insufficient integration of teaching materials that include local content has adversely affected students' reading comprehension, as shown by a decrease in low holistic reading and a limited understanding of local cultural values [1]–[3]. This is demonstrated by the declining reading literacy scores of students in the recent PISA assessment, which revealed a drop of 12 points compared to earlier assessment periods [4]–[6]. Besides that, students achieved a reading score of 72 on the final assessment, falling short of the required passing grade of 75. This decrease happened because students concentrated solely on separate reading elements like sound, vocabulary, sentences, and meaning, rather than grasping the holistic reading in relation to a text's context and discourse of the text [7]. Hence, suitable learning materials are those that not only improve students' comprehension in reading, but also promote cultural awareness, students' activeness and participants in the learning process [8].

To address these issues, it is important to assess the effectiveness of learning materials that integrate local content. Utilizing local content offers significant advantages [9] as it covers daily activities, festivals, historical sites, history, and traditional foods and beverages, enabling students to grasp the context of real-life experiences. The goal is to enhance learning by relating the content to the everyday experiences of students. Incorporating local cultural traits into the learning process can overcome the gap between teaching goals and student achievement [10]. Local content serves to promote and enhance Indonesian cultural heritage [11] and fosters cultural awareness [12]. This is due to the fact that local culture and language are connected in order to accomplish effective communication objectives. This study centers around the local culture of the Jepara Regency community, situated along the northern coast of Java, Indonesia. This region boasts a rich and varied local heritage, including the notable efforts of influential figures, captivating attractions, distinctive cuisine and beverages, as well as vibrant festivals. The learning materials incorporate local content based on Jepara's values, such as notable individuals, historical places, festivals, jobs, and traditional dishes and drinks. The highlighted individuals are Kartini, celebrated for her advocacy of gender equality, and Queen Kalinyamat, recognized for her resistance against colonialism [13], [14]. Historical sites like the Portuguese fort represent the heritage of the Portuguese and stand as a tribute to the resilience of the local community. Furthermore, local culture encompasses traditional celebrations like the "Larung Festival", expressing gratitude for marine resources, and the Torch War, representing the fight against colonialism. It also includes customary crafts such as carving, carpentry, and weaving, along with traditional foods and beverages like "horog-horog", "kuluban", and "pindang serani" [15].

Learning materials play a fundamental role in ELT by: i) offering resources that are readily available for both teachers and students [16]; ii) enhancing knowledge due to their development from multiple sources [17]; and iii) serving as a framework for interactive and enjoyable learning process [18], [19]. It serves as a means of conveying cultural knowledge via images, texts, and discussions found within its contents [20]. The learning materials used should incorporate cultural aspects of the students to resonate with their backgrounds, feelings, and experiences [21]. Furthermore, choosing suitable learning materials by taking into account the backgrounds and needs of students, while highlighting both source and target culture materials, can enhance students' reading comprehension.

Holistic reading is a skill that focuses on comprehending the text in its entirety by examining the connections between its components, the context, learning experiences, and overall understanding, rather than simply interpreting individual words or sentences in isolation [22]. It also refers to students' skill to comprehend a text as a whole by taking into account its overall message and context, rather than just focusing on individual language components [23]. This corresponds with the idea of holistic learning, which emphasizes that students can grasp the content in teaching resources that are connected to real-world situations. The holistic concept to reading emphasizes the whole language theory, which posits that language should be viewed as an integrated whole rather than as a collection of distinct structural elements [24], [25]. The whole language theory of activation holds that language skills must be learned in an integrated manner through the use of authentic language, thus aligning with holistic reading, which places meaning at the center of the process [26]. Thus, holistic reading can be understood as a concrete manifestation of the whole language principle in the activity of reading, in which readers actively construct and understand the meaning of the text as a whole.

Students with strong reading skills are better able to grasp the content and concepts [27]. In holistic reading, students should comprehend the holistic meaning of the text rather than just individual words or sentences. Holistic reading enhances students' critical thinking skills by connecting them to issues in their own lives, leading to well-rounded solutions [28]. It also promotes a deeper comprehension by helping readers identify the central themes of the material and fosters greater contextual learning among students [29]. As a result, holistic reading necessitates that students comprehend the entire text, which encompasses not only the individual elements like sounds, words, sentences, and meanings, but also the comprehensive discourse and intent behind the text they are reading.

The subject of using local content in ELT, especially in the area of reading, has attracted significant attention from numerous researchers. Incorporating local content into educational resources could enhance reading skills, cultivate an appreciation for local culture, and encourage the values associated with that culture [1], [21], [30]. Earlier studies also indicate that integrating local content into teaching materials could improve students learning achievements, particularly in reading skills [3]. It can also promote an understanding of the local culture, reinforce regional identity, and help in character development for students [31]. This is backed by students' positive views and attitudes with accessibility in learning process [20], [32]. This can enhance students' creativity by promoting fluency, flexibility, originality, and elaboration [33]. On the other hand, learning materials that include local content is an effective way to enhance holistic reading literacy, aligning with Indonesia's current ELT curriculum in junior high school that focuses on achieving learning outcomes related to both the target culture and the source culture [34], [35].

This study identifies a research gap in previous works that there is a lack of empirical study investigating the overall effectiveness of locally-enriched materials in enhancing reading skills. This complicates identifying the reading factors that aid students' understanding. Moreover, research on the comparison of reading learning outcomes between local content-based learning materials and global content-based learning materials remains limited, which hampers the empirical assessment of their respective benefits in the context of ELT. The significance of this study indicated that incorporating local content is crucial for enhancing the overall quality of learning, as it links new information with existing knowledge, including culture, and experiences. Additionally, incorporating local content elements into learning materials enhances students' cultural awareness, allowing them to comprehend texts in a way that is both linguistic and contextual, as well as discourse. This leads to higher student involvement in their learning, as the content appears more relevant and significant to them, fostering greater active participation.

However, there has been insufficient research on the use of locally-enriched learning materials to enhance students' holistic reading skills. This study aims to: i) examine the effectiveness of locally-enriched learning materials on students' holistic reading and ii) explore students' responses to learning with these materials. Consequently, the research hypothesis is stated as: locally-enriched learning materials is effective toward students' holistic reading for the working hypothesis, while the null hypothesis posits that locally-enriched learning materials is not effective toward students' holistic reading.

2. METHOD

This research utilizes a mixed-method approach, utilizing a quantitative design to assess the effectiveness of locally-enriched learning materials on students' holistic reading [36], [37], while also incorporating a qualitative design to explore students' reactions to these materials during their learning process. This approach employs a sequential explanatory, starting with the collection and analysis of quantitative data through tests, and then proceeding to collect qualitative data via observations and questionnaires to enhance the understanding of the quantitative findings. In this research, quantitative data offers a broad understanding of the effectiveness of locally-enriched learning materials, whereas qualitative data helps to explain the reasons behind the learning materials based on respondents responses. The approach includes utilizing learning materials based on local content as the influencing variable, whereas the influenced variable is the holistic reading of the students. The chosen experimental design features a non-equivalent control group, comprising students in class VII-A as experimental group and students in class VII-B as control group. The students in class VII-A received intervention using locally-enriched learning materials, while the students in class VII-B used printed textbooks provided by the Ministry of Education.

Figure 1 outlines a research procedure for experimentation starting with the use of a trial instrument to assess its validity. Valid instruments are employed to gather respondent data via pre-tests, including test, observation, and questionnaire. The test employed has been previously evaluated for its validity and reliability. In the validity assessment applying the product moment formula, 40 out of 45 questions fell into the valid category, as their calculated r -value exceeded the r -table value of 0.373 at a 5% significance level. On the other side, the reliability assessment using the split-half method yielded a reliability coefficient of 0.912, which is above the acceptable threshold of 0.6. The questions were designed as multiple-choice inquiries, each offering four possible answers and focused on spoken and written skills. The observation and questionnaires were evaluated for content and construct validity by experts. The observation received content validity scores of 3.71 and construct validity scores 3.42, while the questionnaires achieved content validity scores of 3.82 and construct validity scores 3.67. The test findings showed that both instruments were valid, with scores between 3.1 and 4.0.

Initially, a pre-test was given to two groups to evaluate the students' initial status before they underwent any interventions, as shown in Table 1. Afterward, the students in class VII-A were given learning materials focused on local content during four weeks, while the students in class VII-B used printed textbooks for their instruction during four weeks. The intervention involving local content on significant days in Jepara includes traditional celebrations such as the celebration of Kartini Day to honor Kartini's fight for emancipation, the Baratan festival to celebrate Queen Kalinyamat's efforts, and the Larung festival to promote coastal tourism. The intervention on the material of my families and their job discusses the various occupations of the typical people of Jepara, including fishermen, carvers, carpenters, Troso weavers, and monel artisans. All of these materials are delivered as spoken texts emphasizing listening, speaking, and presenting skills, as well as written texts that highlight reading, viewing, and writing skills. After the intervention, a post-test was given to two classes to evaluate their progress in learning. Observations were conducted using an observation checklist both prior to and following the intervention provided to the experimental group.

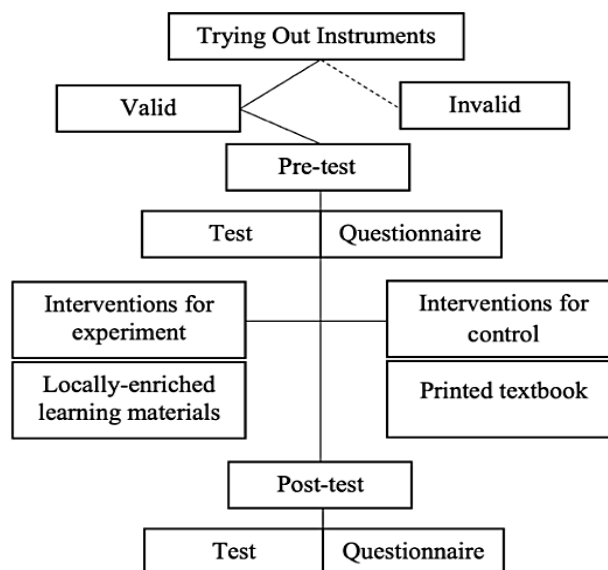


Figure 1. Research procedure

Table 1. Intervention of both groups

VII-A			VII-B		
Weeks	Materials	Duration (minutes)	Weeks	Materials	Duration (minutes)
1	Pre-test	2x40	1	Pre-test	2x40
2	Jepara's important days; listening and speaking, and reading and viewing	2x40	2	Nice to meet you; warm up and build up	2x40
3	Jepara's important days; writing and presenting dan focus in language	2x40	3	Nice to meet you; go further and let's create	2x40
4	My families and their jobs; listening and matching and listening and speaking	2x40	4	It's Judy spark; warm up and build up	2x40
5	My families and their jobs; reading and viewing and writing and presenting	2x40	5	It's Judy spark; go further and let's create	2x40
6	Post-test	2x40	6	Post-test	2x40

2.1. Respondents

The study involved 136 from a total of 210 students, as shown in Table 2, who were chosen based on the Krejcie and Morgan sampling formula [38], allowing for a 5% margin of error and then divided into two groups; experimental and control. Respondents were seventh grade junior high school students chosen randomly from their classes using simple random sampling technique. This selection considered their grade level, specifically seventh grade, which indicated they could communicate functionally and comprehend basic reading materials as well as the geographic distribution of schools in coastal, mountainous, and plains region. This study took place at junior high schools in Jepara Regency, Indonesia, where local culture and its values continue to be upheld, influenced by the efforts of figures, along with historical landmarks, local occupations, festivals, and traditional regional dishes and drinks.

Table 2. Respondents

Age	Gender		Sum
	Male	Female	
13	23	29	52
14	25	31	56
15	17	11	28

2.2. Data collection and analysis

The information for this study was gathered using a 40-question multiple-choice test. Each question included reading passages, which were either paragraphs or written dialogue, tailored to the local context that asked students to show their holistic reading skills. The gathered data was subsequently subjected to

quantitative analysis through prerequisite tests for homogeneity and t-tests. Qualitative data gathered from learning observation and questionnaires were analyzed using descriptive statistics focusing on specific indicators. The subsequent indicators are designed to assess students' holistic reading skills, as shown in Table 3.

Table 3. Indicators and sub-indicators

Holistic reading	Learning observation	Students' responses
Learning experiences through language skills – Spoken elements (listening, speaking, presenting) – Written elements (reading, viewing, writing)	Stages of ELT – Knowledge acquisition of the field (KAF) – Text modeling (TM) – Collaborative text creation (CTC) – Individual text creation (ICT)	Learning materials used
Discourse of the text – Jepara local culture – Daily activities in Jepara	The use of locally-enriched learning materials – Student worksheet – Teaching variation	In-class activities
Reading comprehension – Understanding vocabulary – Identifying main idea – Skimming and scanning of the text – Accuracy in grammar – Text prediction	Material variations – Materials – Integrated materials – Local content	Material contents
	Teaching approach used – Integrated language skills – Teaching approach	Supporting
	Students' participation – Collaboration in pair and small discussion	
	Holistic reading	

The process of analyzing quantitative data starts with organizing the data into tables, using holistic reading indicators to differentiate between the experimental and control groups. This is succeeded by a homogeneity test, which is then followed by an independent sample t-test to assess the impact of the locally-enriched learning materials variable on the holistic reading variable in two unrelated groups. The results are subsequently displayed in a figure format. The process of analyzing qualitative data involved both observations and questionnaires. The observed and documented aspects were categorized according to specific indicators, and a descriptive analysis was conducted to determine percentages and averages.

3. RESULTS AND DISCUSSION

Before carrying out the t-test analysis, a homogeneity test was conducted to determine if the data collected from the respondents came from the same or a consistent group. The results of the homogeneity test performed using Levene's test showed that the significance value of 0.831 was greater than 0.05. The results indicate that the data variability was similar between students in class VII-A, which was the experimental group, and students in class VII-B, which was the control group.

The pre-test was conducted to evaluate the students' initial understanding before implementing the locally-enriched learning materials for the students in class VII-A, while the students in class VII-B used printed textbooks provided by the Ministry of Education. Figure 2 displays the results of the pre-test and post-test carried out with both the students in class VII-A and the students in class VII-B. The students in class VII-A had an average pre-test score of 67.60, according to Figure 2, while the control group's average was 60.76. As a result, the students in class VII-A achieved an average score of 73.45 on the post-test, while the control group received an average score of 62.71. This indicates that the students in class VII-A have superior holistic reading skills compared to those in the control group. This improvement is warranted considering the impact of the intervention on both groups.

Every group participated in four intervention sessions as shown in Table 1, during which the teacher emphasized delivering content related to people, locations, and objects. This was accompanied by diverse learning activities that facilitated the integration of language skills and encouraged collaboration through pair work and small group discussions. This comparison of means aligns with earlier studies that demonstrated that intervention provided to students can enhance learning results and engagement [39], [40], especially in reading comprehension [41], [42].

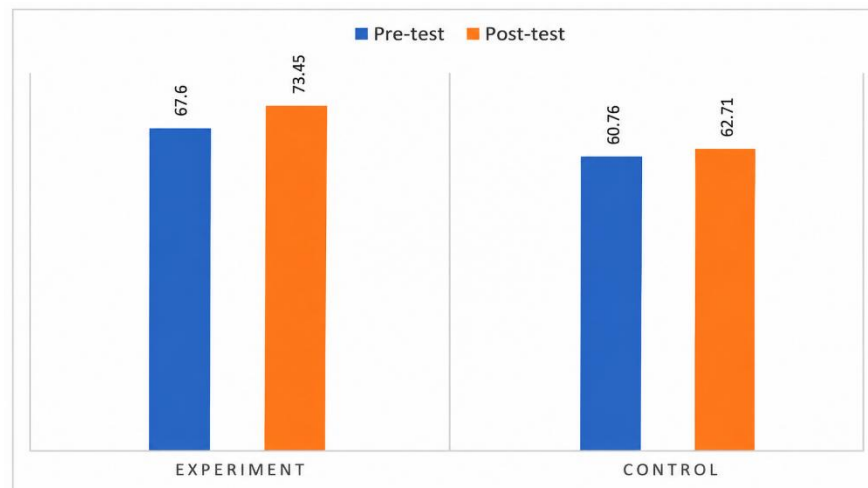


Figure 2. Pre-test and post-test mean comparison

3.1. Impact of locally-enriched learning materials

Figure 3 illustrates the impact of the intervention on students' holistic reading. The figure illustrates that both groups exhibited identical variance, as indicated by the F-value. Before the intervention was implemented, the two groups had similar conditions, as indicated by a t value of 1.267, which was lower than the t-table value of 1.680. Following the intervention provided to the two classes, various outcomes emerged, with a t-value of 2.225 exceeding the t-table value of 1.680. This indicates that the learning materials' effectiveness is evident following the intervention, as the working hypothesis is accepted and the null hypothesis is dismissed with a t-value exceeding the t-table. The intervention provided to class VII-A, which involved locally-enriched learning materials, proved to be more effective for enhancing students' holistic reading compared to the printed textbooks used for class VII-B. The mean difference between the two groups was 10.73. As a result, following the intervention, the holistic reading skills of the students in the class VII-A differed from those in the class VII-B. The average difference between classes VII-A and VII-B prior to the intervention was relatively small at 6.84, but after the intervention, this difference increased to 10.73. This happened because the intervention produced varying results: locally-enriched learning materials significantly boosted students' holistic reading skills, whereas printed textbooks did not effectively enhance these skills. Students learn to recognize suitable vocabulary according to the reading context related to the local materials, discern the main idea by grasping the text's generic structure, locate specific details within the reading, and ensure grammatical accuracy based on the material studied. In conclusion, it can be said that incorporating learning materials centered around local content positively influences students' holistic reading.

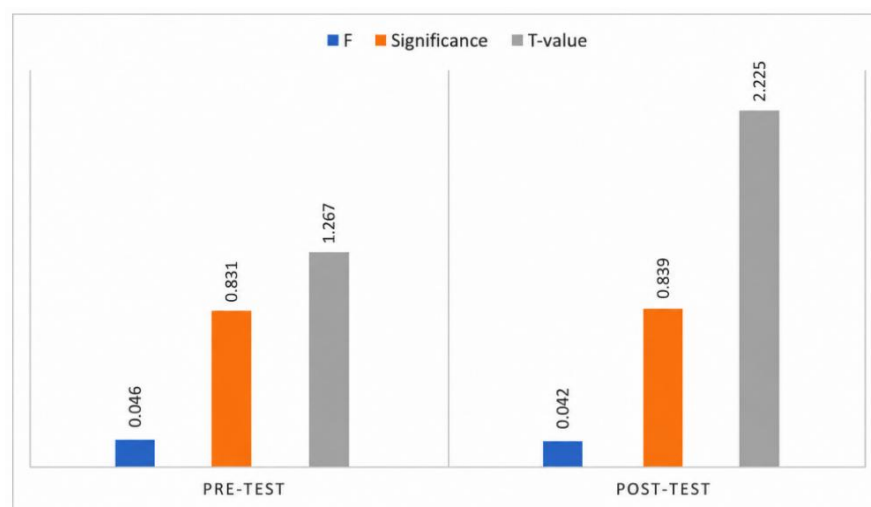


Figure 3. T-test analysis of pre-test and post-test

With an internal range of 0.958 for the post-test t-test results in both groups, locally-enriched learning materials can help students develop holistic reading skills. This is due to the fact that these learning materials promote student communication in English, helping them to acquire learning experiences, grasp the content of a text, and showcase their reading comprehension skills. The results of the t-test shown in Figure 3 indicate that the interventions given to participants in both groups had a significant impact on their outcomes when compared to the results prior to the interventions [41], [42]. Table 4 illustrates the improvement of holistic reading skills for each criterion.

Students' learning experiences, in terms of both oral and written skills, improved significantly after the intervention, showing a difference of 10.91 and 8.91 in the class VII-A. The incorporation of various skills in the materials helps students grasp the content more easily, as it remains centered around a cohesive theme. This suggests that the learning materials played a key role in enhancing students' language skills through experiential learning activities [43]. Students' written communication also improved, especially in their understanding of local culture and daily activities that represent community traditions, showing increases of 9.3 and 3.02 in class VII-A. This indicates that the content of the teaching resources is rooted in cultural contexts and activities that students recognize, thereby facilitating their understanding of local culture and helping them incorporate its values into their daily lives [2].

Additionally, students showed improved reading comprehension, which included enhanced vocabulary skills, better identification of key ideas, more effective text scanning, and greater grammatical accuracy. This rise happened because the vocabulary used in the learning materials was familiar to the students, enabling them to recognize the main idea of a text. With a strong command of vocabulary, students can quickly analyze texts to accurately grasp the content of their reading while maintaining grammatical accuracy [42], [44]. Moreover, the increase in students' average scores shown in Figure 2 and the t-test results displayed in Figure 3, indicate that the enhancement of English learning through locally-enriched based learning materials is also evident in students' feedback on class participation, as demonstrated in Table 5.

Table 4. Students' holistic reading

No	Indicators	Sub-indicators	VII-A (experiment)		VII-B (control)	
			Pre	Post	Pre	Post
1	Learning experiences through language skills	Spoken elements (listening, speaking, presenting)	61.63	72.54	54.98	64.96
		Written elements (reading, viewing, writing)	65.21	74.12	65.21	61.05
2	Discourse of the text	Jepara local culture	69.80	79.10	61.35	63.76
		Daily activities in Jepara	65.81	68.83	60.27	61.85
3	Reading comprehension	Understanding vocabulary	66.66	68.78	65.21	69.08
		Identifying main idea	63.76	79.36	60.86	55.07
		Skimming of the text	68.11	65.87	58.69	52.17
		Scanning of the text	70.75	77.92	60.05	74.30
		Accuracy in grammar	60.86	87.30	57.97	33.33
		Text prediction	72.46	63.49	58.69	72.46

Table 5. Learning observation during the use of local content-based teaching materials

No	Indicators	Sub-indicators	Mean	
			Pre-teaching	Post-teaching
1	Stages of ELT	KAF TM CTC ICT	2.3	3.5
2	The use of locally-enriched learning materials	Student worksheet	2.6	3.6
3	Material variations	Teaching variation Materials Integrated materials Local content	1.6	3
4	Teaching approach used	Integrated language skills Teaching approach	2.3	3.3
5	Students' participation	Collaboration in pair and small discussion	3	3.5
6	Reading skill	Holistic Reading frequency	1.5	3.5
	Mean total		2.2	3.4
	Category		Good	Very good

According to Table 5, the use of teaching materials rooted in local content for English language instruction has been proven to greatly enhance students' holistic reading skills. This is evidenced by an increase in student engagement in ELT after the intervention, reflected in an average score of 3.4, indicating

that learning English using locally-enriched learning materials is rated as very good. This is illustrated by an increase in student involvement during the stages of KAF, TM, CTC, and ICT. KAF and TM lay the groundwork for students' existing knowledge, while it also helps them grasp new material [45]. CTC encourages collaboration among students, and ICT emphasizes independent learning [46]. In ELT, instructional materials are utilized alongside a variety of resources that align with the curriculum. These include provided exercises, student worksheets, and a range of learning activities that can be completed individually, in pairs, or in groups. Moreover, learning materials offer numerous advantages, particularly in developing literacy and critical thinking skills [47], as they feature pictures, tasks, and various activities.

Locally-enriched learning materials encompass the distinctive features of Jepara's community, highlighting the challenges faced by notable individuals, iconic locations, as well as elements like traditional cuisine and beverages, everyday life, and cultural celebrations. The materials are organized in a cohesive way that encompasses various language skills, including listening and speaking, reading and viewing, as well as writing and presenting and consisting pictures, animation, materials for listening, and interactive tasks. This is meant to help students share, engage, and discuss ideas and concepts with others [43]. The incorporation of skills in learning materials focused on local content enhances students' holistic reading skills, as they comprehend language in a comprehensive manner rather than in isolation, as illustrated in Table 5. Student engagement has risen, as evidenced by their collaboration in pairs and groups to share ideas and concepts. These pair and group-based tasks allow students to obtain a complete understanding of the subject matter being explored [48].

3.2. Students' responses

Student feedback was collected via a questionnaire following a 4-week period during which locally-enriched learning materials were used. The responses from students are presented in Table 6. The overall average score from student feedback on learning across all indicators was 3.21, falling within the range of 3.1 to 4.0. This indicates that students responded positively, suggesting that the locally-enriched learning materials are effective for teaching purposes. The learning materials are straightforward for students to comprehend and utilize in their English studies. It includes comprehensive information on materials, starting with a straightforward mapping of concepts, which helps enhance students' language skills. This is demonstrated by an average score of 3.25 for the learning materials. Activities using these learning materials can be easily carried out by incorporating different language skills, focusing on collaborative pair work and small group discussions. This is supported by an average score of 2.98 for the in-class activities measure. The learning materials align with the relevant curriculum and are delivered in a cohesive and comprehensive way, highlighting local content that is relevant to the students and the values it encompasses. The content relies on both spoken and written discourse to enhance reading literacy, as demonstrated by an average score of 3.30. Supporting elements such as the availability of images and illustrations, vocabulary, clarity of instructions, and the diversity of exercises related to holistic reading received favorable feedback, achieving an average score of 3.29.

Table 6. Students' responses on the use of locally-enriched learning materials

No	Indicators	Aspects	Percentage	Mean	Total mean
1	Learning materials	Simple to comprehend	76.04	3.16	3.25
		Simple to reach	72.91	3.03	
		Relevant	85.41	3.55	
		Offer expensive details	73.95	3.08	
		Enhances language abilities	86.45	3.60	
		Clear and accessible content	73.95	3.08	
2	In-class activities	Simple to use	75	3.12	2.98
		Integrated language elements	77.08	3.21	
		Differences in learning	60.41	2.51	
		In-pair activities	76.04	3.16	
		Collaborative activities	69.79	2.90	
		Goal oriented	87.50	3.64	
3	Material contents	Integrated holistic	72.91	3.03	3.30
		Local content	86.45	3.60	
		Cultural values	78.12	3.25	
		Simple and clear language	77.08	3.21	
		Integrated skills	78.12	3.25	
		Spoken and written discourse	83.33	3.47	
4	Supporting	Comprehensive reading skills	70.83	2.95	3.29
		Illustrations	84.37	3.51	
		Commonly used words	85.41	3.55	
		Clear instructions	77.08	3.21	
		Exercises	78.12	3.25	
		Comprehensive reading	70.83	2.95	

The favorable reactions from students regarding the usefulness of the learning materials suggest that these materials can serve multiple purposes, such as providing assessment and assignments [49] and conveying cultural messages and values [32]. The learning materials encourage students to engage in the learning process both physically and mentally [50], while also promoting self-regulation and independent learning [51].

4. DISCUSSION

Utilizing learning materials that is developed locally greatly enhances students' holistic reading skills, encompassing their learning experiences, text discussions, and comprehension during the learning process. Students' language skills development is enhanced when they foster a positive perspective of their surroundings, leading to improved communication and presentation skills [10]. On the other hand, utilizing materials sourced from the local area greatly contributes to improving both speaking and writing skills where the students could practice their language skills anywhere via mobile devices [1]. Combining the oral skills of listening, speaking, and presenting with the written skills of reading, viewing, and writing [52] in local content-based learning material results in beneficial effects, especially improving the comprehensive language learning experience. When learning materials include aspects of the local environment, culture, or daily experiences, students build a framework of understanding that enhances their ability to grasp the text more efficiently and thoroughly [53]. This familiarity diminishes the mental effort usually required for students to comprehend texts in unfamiliar situations. Therefore, reading comprehension involves not only mechanical processes but also interpretation and context [54].

Both oral and written language activities offer students opportunities to develop their understanding by engaging in communication and negotiating the meanings within those interactions [55]. This aligns with the tenets of constructivist learning, which emphasize that knowledge is developed through the experiences of students [50]. Integrating language skills in learning materials, such as combining listening with speaking, reading with viewing, and writing with presenting, can enhance student engagement in communication and interaction [56]. Engaging in listening and speaking enhances students' comprehension of vocabulary and meanings, facilitating their grasp of conversational content [57]. Meanwhile, reading and writing help students reconstruct the meanings of texts, promote detailed understanding, support linguistic analysis, and deepen their grasp of text organization [58]. Although the integration of various language skills promotes comprehensive learning, it does not necessarily ensure that all students achieve a profound understanding. Effective integration relies on the learning materials and the alignment of activities with learning goals [43]. If the local-based materials or activities offered lack relevance or intellectual depth, the experience might be shallow, focusing more on formal engagement than on fostering holistic language skills [59].

Students also show their holistic reading skills by demonstrating an understanding of the structure and organization of text. Grasping text discourse requires acknowledging the context of students' surroundings, which are filled with local knowledge and positive values [30]. This recognition encourages students to actively participate in the learning process [18]. Moreover, comprehending daily activities enhances students' communication skills, as these actions are practiced regularly, and promotes contextual learning that fosters student engagement [60]. Students' discussions reflect their perspectives on nationalist values, as these views link their local and regional cultures to their daily experiences [61], [62]. This is illustrated by the growing recognition of the importance of marine ecosystem conservation [63], as Jepara boasts an extensive coastline. Additionally, there is a focus on preserving local industries that utilize wood [15], as well as honoring the contributions of influential figures from Jepara, such as Kartini, known for her struggle in gender equality, and Queen of Kalinyamat, celebrated for her persistence against colonial government. The incorporation of local materials significantly enhances students' reading comprehension, as evidenced by their proficiency in reading strategies [64], vocabulary knowledge, and skills in recognizing and anticipating the content of texts [1]. A major enhancement in holistic reading is found in students' experiences with written skills, which necessitate their ability to grasp the context of their reading text in relation to the local culture of Jepara. This aids students in understanding the key concepts presented in the reading text. This suggests that incorporating local materials that utilize vocabulary and contexts familiar to students can help them grasp the primary concepts of a text, as these materials relate to their local environment, thereby enriching their learning experiences [42], [44].

The learning activities included in the learning materials encourage students to work together in pairs and small groups. The learning materials emphasize collaborative activities that include speaking, listening, reading, viewing, writing, presenting, focusing on language, and encouraging participation. The material that students work collaboratively, either in-pair activity or small group discussion, pertains to local content, particularly reflected through language skills. These collaborative activities can enhance various skills, including: i) critical reading, which involves students analyzing and evaluating texts

thoroughly while employing a genre-based approach; ii) problem-solving competences; iii) literacy skills; and iv) reading comprehension improvement [40], [65]. Through a collaborative method, different skills collaborate to achieve educational objectives [66], [67]. The learning materials highlighted the importance of collaborative learning, encouraging students to work in groups or pairs to achieve shared goals [40]. Engaging in these collaborative activities can improve students' learning by allowing them to support each other [28]. This emphasis enables students to focus on vocabulary, grammar, and contextual interpretations, helping them gain a comprehensive understanding of the text [68]. The outcome of this integration fosters a comprehensive understanding, enhances learning outcomes, and boosts student involvement [69]. Additionally, the vocabulary used is familiar to the students and appropriate for their everyday and educational contexts. The educational resources motivate students to participate in conversations about community issues that are pertinent to their experiences, potentially increasing their engagement and boosting their reading achievement [42].

According to Table 4, it can be inferred that holistic reading do not entirely affect students' reading scores. This happens because there is an absence of meaningful learning experiences involving local texts, affecting both oral skills (listening-speaking-presenting) and written skills (reading-viewing-writing). Students' challenges in oral skills are evident in two areas: their struggle with recognizing clustering, as they tend to concentrate on the meanings of individual words instead of phrases, and the pace at which spoken text is delivered, which makes it difficult for them to repeat what has been said [70], [71]. Conversely, students' writing difficulties are evident in their insufficient vocabulary knowledge, which hinders their holistic understanding of reading materials [44], [46]. Additionally, their limited grasp of the reading context complicates their ability to discern main ideas and specific details [72]. Learning materials featuring content rooted in the local culture of Jepara are unfamiliar to students, who usually rely on general textbooks that lack a regional focus. While students have holistic discourse competence, they find it challenging to use these skills when engaging with local texts [73]. As a result, holistic competence does not have a direct impact on their reading scores at text prediction and skimming of the text. This happens because students are used to books that present global English content. As a result, when they encounter materials based on local topics, some students from outside Jepara may not recognize the vocabulary, making it difficult for them to anticipate the reading text's content and specific details.

The result of this study is in line with the Indonesian national curriculum where local content serves as an element that allows schools to tailor their materials based on the cultural traits of their region. English is still a mandatory subject across the country, but local content is incorporated using enrichment materials that emphasize regional culture, opportunities, and the context of texts and learning activities [45]. Additionally, the original culture is upheld by safeguarding the local traditions of Indonesian society through the provision of resources related to their cultural context and everyday experiences [74]. By utilizing locally-enriched learning materials, teacher can create relevant and meaningful ELT that connects language skills with students' personal experiences and cultural backgrounds. This improves participation, holistic understanding, and critical thinking abilities through real-world activities [75]. From a policymaker's viewpoint, locally-enriched learning materials offer a practical basis for creating flexible and sustainable curricula that encompass both curricular and co-curricular activities, while also blending global language skills with local cultural values. Consequently, utilizing these learning materials necessitates a balanced strategy that harmonizes local significance with the proficiency in global language capabilities [76].

5. CONCLUSION

The influence of locally-enriched learning materials is well-backed by both quantitative and qualitative evidence. Quantitative results indicate that locally-enriched learning materials significantly improve post-learning test scores in comparison to pre-learning tests, affecting all aspects of holistic reading, such as language skills, text discourse, and reading comprehension. This is supported by the t-values is higher than the t-table and the average scores from the post-learning tests being higher than those from the pre-learning tests. Enhancements were made in spoken skills, including listening and speaking, as well as in written skills such as reading and writing. Enhancing discourse indicators can be accomplished by deepening students' understanding of the material's context, especially by incorporating local content from Jepara and their everyday experiences. Enhancements in reading comprehension are achieved by developing vocabulary, identifying the primary objective of the text, employing scanning methods, and grasping grammar concepts. In the meantime, students' responses gathered through observations and questionnaires shows a rise in engagement during the learning phase. Observations reveal greater involvement in classroom discussions and interactions, while questionnaire results suggest that students have a more favorable view of learning that is grounded in their local context. The integration of both quantitative and qualitative findings reinforces the idea that locally-enriched learning materials are beneficial for enhancing holistic reading and learning quality. This study suggests that the Indonesian government, especially the Ministry of Primary and

Secondary Education, should offer learning materials that incorporate local values from various regions and integrate them into both curricular and extracurricular activities. The broad distribution of respondents poses challenges for this study that could potentially be resolved with an increased sample size. Further study should incorporate text prediction and skimming as dependent variables to assess the effectiveness of the learning materials in enhancing students' holistic reading.

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C : Conceptualization

M : Methodology

So : Software

Va : Validation

Fo : Formal analysis

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R : Resources

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Vi : Visualization

Su : Supervision

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CONFLICT OF INTEREST STATEMENT

There is no conflict of interest.

INFORMED CONSENT

We have obtained informed consent from all individuals included in this study.

DATA AVAILABILITY

The data underpinning the results of this study can be obtained from the corresponding author, [HM], upon reasonable request.

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