Gist Education and Learning Research Journal. ISSN 1692-5777.
No. 31 (July - December, 2025). pp. 89-110.

Augmenting Students' Reading Comprehension Using Source Culture-Oriented Texts: Eighth-Grade in Focus

Mejorar la comprensión lectora de los estudiantes mediante textos de origen cultural: octavo grado en foco

Atirse Awago Atumo[1]
College of Social Sciences and Humanities, Department of English Language and Literature, Jimma University, Ethiopia

Getachew Seyoum Woldemariam[2]
College of Social Sciences and Humanities, Department of English Language and Literature, Jimma University, Ethiopia

Abbi Lemma Wodajo[3]
College of Education and Behavioral Sciences, Department of Curriculum, Jimma University, Ethiopia

[1] atirseawago@gmail.com
[3] getachews2004@gmail.com
[3] abbi.lemma@ju.edu.et

Abstract

This study aimed to enhance eighth-grade students' reading comprehension through source culture-oriented texts using a design-based research approach. It involved 67 students (29 males and 38 females) from two purposefully selected primary schools. Baseline data were collected using document analysis, classroom observation, and pre-reading tests. Initial findings revealed significant challenges in reading comprehension, with only 26.5% of students at School A and 18.2% at School B scoring above 50%. In phase II, local culture-based texts were developed, reviewed, and refined by experts. In Phase III, the intervention materials were implemented in two phases over 16 sessions across 8 weeks at each school. The evaluation included both formative and summative assessments, including reflections from observation results, post-tests, and delayed post-tests. The inferential statistical analysis showed significant improvements in students' scores ($p = 0.000$) in the one-way ANOVA, indicating the intervention's effectiveness. The results suggest that the use of culturally relevant texts led to improved reading comprehension, addressing issues such as low comprehension skills identified in Phase I. The study recommends further exploration of culturally relevant materials across diverse educational settings.

Keywords: Local culture, Design-based research, Baseline, augment, EFL, reading comprehension, Higher education.

Resumen

Este estudio tuvo como objetivo mejorar la comprensión lectora de estudiantes de octavo grado mediante textos orientados a la cultura de origen, utilizando un enfoque de investigación basado en el diseño. Participaron 67 estudiantes (29 hombres y 38 mujeres) de dos escuelas primarias seleccionadas específicamente. Se recopilaron datos iniciales mediante análisis de documentos, observación en el aula y pruebas previas a la lectura. Los resultados iniciales revelaron dificultades significativas en la comprensión lectora, ya que solo el 26,5 % de los estudiantes de la Escuela A y el 18,2 % de la Escuela B obtuvieron una puntuación superior al 50 %. En la fase II, expertos desarrollaron, revisaron y perfeccionaron textos basados en la cultura local. En la fase III, los materiales de intervención se implementaron en dos fases a lo largo de 16 sesiones durante 8 semanas en cada escuela. La evaluación incluyó valoraciones formativas y sumativas, incluyendo reflexiones sobre los resultados de las observaciones y pruebas posteriores, tanto iniciales como diferidas. El análisis estadístico inferencial mostró mejoras significativas en las puntuaciones de los estudiantes, con valores p de 0,000 en el ANOVA de una vía, lo que indica la efectividad de la intervención. Los resultados sugieren que el uso de textos culturalmente relevantes mejoró la comprensión lectora, abordando problemas como las bajas habilidades de comprensión identificadas en la Fase I. El estudio recomienda seguir explorando materiales culturalmente relevantes en diversos entornos educativos.

Palabras clave: cultura local, investigación basada en diseño, línea base, inglés como lengua extranjera, escritura académica.

Resumo

Este estudo teve como objetivo aprimorar a compreensão leitora de estudantes do oitavo ano por meio de textos orientados à cultura de origem, utilizando uma abordagem de pesquisa baseada em design. Participaram 67 estudantes (29 meninos e 38 meninas) de duas escolas primárias selecionadas especificamente. Os dados iniciais foram coletados por meio de análise documental, observação em sala de aula e testes prévios de leitura. Os resultados iniciais revelaram dificuldades significativas na compreensão leitora, uma vez que apenas 26,5% dos estudantes da Escola A e 18,2% da Escola B obtiveram pontuação superior a 50%. Na Fase II, especialistas desenvolveram, revisaram e aperfeiçoaram textos baseados na cultura local. Na Fase III, os materiais de intervenção foram implementados em duas etapas ao longo de 16 sessões durante 8 semanas em cada escola. A avaliação incluiu análises formativas e somativas, incluindo reflexões sobre os resultados das observações e dos testes posteriores, tanto iniciais quanto tardios. A análise estatística inferencial mostrou melhorias significativas nas pontuações dos estudantes, com valores de p de 0,000 na ANOVA unidirecional, indicando a efetividade da intervenção. Os resultados sugerem que o uso de textos culturalmente relevantes melhorou a compreensão leitora, abordando problemas como as baixas habilidades de compreensão identificadas na Fase I. O estudo recomenda continuar explorando materiais culturalmente relevantes em diversos contextos educacionais.

Palavras-chave: cultura local, pesquisa baseada em design, linha de base, inglês como língua estrangeira, escrita acadêmica.

In the era of globalization, proficient reading skills are crucial to achieve educational goals. Reading enables learners to gain knowledge, develop competencies, and beliefs through engagement with different texts. In second- and foreign-language contexts, it plays a vital role in supporting learners in reconstructing the author's intended meaning (Kusumarasdyati, 2023; Oktarina et al., 2022). Developing reading skills is thus essential, enabling learners to access books, journals, and other materials to support academic achievement (Ciocoi-Pop, 2020; Ratminingsih et al., 2020).

In contexts with limited English exposure, such as Ethiopia, reading becomes the primary means of language acquisition. However, effective reading requires more than decoding; it involves understanding both implicit and explicit information (Selvathurai & Ismail, 2024). Comprehension is a core aspect of the reading process and essential for effective language learning (Hayati & Puspitaloka, 2022). Students' academic performance significantly depends on their ability to read and understand textbooks (Mulata & Regassa, 2022). However, limited background knowledge and unfamiliarity with content often affect comprehension. To overcome these challenges, connecting reading materials to students' cultural backgrounds is necessary. Incorporating local culture, experiences, and values into reading materials activates prior knowledge and creates meaningful engagement (Moneka et al., 2024). Studies show that culture-oriented local texts can significantly enhance comprehension and motivation (Ratminingsih et al., 2020; Intang et al., 2023). For textbooks to function as effective learning tools, they must reflect students' identities and local realities (Hadianto et al., 2022).

In Ethiopia, English is taught as a foreign language through school-based instruction, and students often have limited exposure to English outside the classroom. They also come from diverse socioeconomic and cultural backgrounds and face difficulties in vocabulary and grammar, which significantly affect their reading comprehension abilities (Koyra & Jarssa, 2021). National learning assessments consistently show low performance. The third national learning assessment reported an average reading comprehension score for eighth-grade students of 43.9 (NEAEA, 2004), while the fifth recorded a mean score of 23.4, which was below the basic level, despite a baseline mean of 64.5 (NEAEA, 2016). These findings highlight the urgent need for targeted interventions. Thus, the study aims to address the following research questions:

RQ1: What cultural elements and dimensions are incorporated in the reading texts of the eighth-grade English textbook?

RQ2: What challenges do students face while reading the text in the eighth-grade English textbook?

RQ3: Does the instructional intervention using local culture-oriented texts lead to a significant improvement in students' reading comprehension?

Literature Review

The Nature of Culture

Culture is a broad and multifaceted concept encompassing mental habits, moral values, customs, and artistic expression that define societies (Kumaravadivelu, 2003). Brown (2007) describes culture as a system of traditions, skills, arts, and tools, while Khan (2014) views it as a way of life, including foods, customs, and traditions. Culture also encompasses shared systems of knowledge, beliefs, attitudes, and expected behaviors within society. Lee (2009) categorized into four dimensions: aesthetic, sociological, semantic, and pragmatic, and distinguished between big 'C' culture (literature, art, and history) and small 'c' culture (family life, food, and customs). The semantic and pragmatic aspects involve both practical and contextual knowledge essential for communication. Teo (2016) argues that 'c' culture plays a vital role in fostering cross-cultural understanding.

Language and culture are interdependent, with language serving as a medium for expressing and transmitting culture (Kramsch, 2012). In the Ethiopian context, cultural practices such as greetings (e.g., nodding one's head, shaking hands, and placing one's hand on the chest), traditional foods (e.g., *Injera*, *Koch),* and drinks (e.g., Tej or *Tela)* demonstrate this connection. Krasniqi (2019) explains that language and culture mutually shape each other through communication patterns, behaviors, and historical contexts.

Local Culture

Local culture refers to shared practices, traditions, and daily experiences in a specific region (Ratminingsih, 2020). It plays a vital role in community identity and can enrich learning by integrating familiar contexts into instruction (Adebola et al., 2022). Using it in language learning provides students with familiar content, enhancing comprehension and self-expression (Nambiar et al., 2020). For instance, incorporating topics such as traditional games, festivals, and ceremonies encourages students to draw upon their prior knowledge while practicing language skills. However, as Khan (2014) notes, cultural content should be selected carefully. Therefore, cultural content chosen for foreign language teaching should inspire students, be inclusive, and foster positive attitudes toward language learning. Brown (2001) outlines strategies for integrating culture into language education, including sociolinguistic instruction, comparative analysis, and the use of culturally appropriate materials, emphasizing helping students examine their own cultural assumptions through reflective tasks.

Conceptual Framework

A conceptual framework provides a structured representation of a study's variables and their relationships (SAGE, 2021). In this study, the framework guides the integration of local culture-based reading materials and outlines how these materials support the development of reading comprehension.

Figure 1. Conceptual Framework of the Study

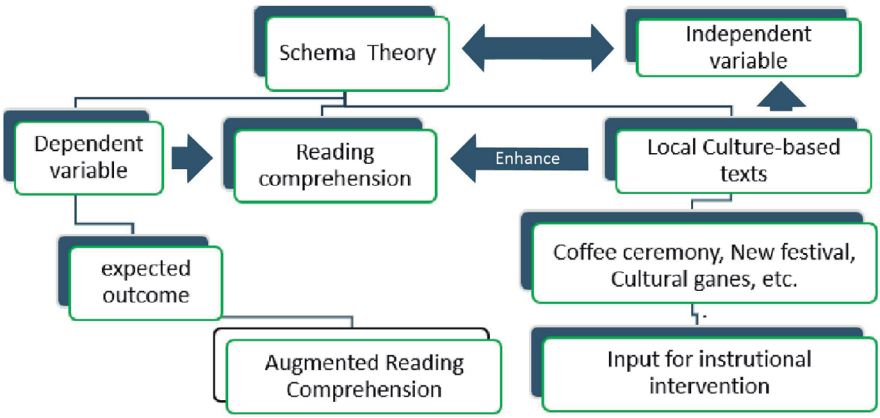


Figure 1 illustrates how schema emphasizes the role of background knowledge in reading comprehension. Nassaji (2002) explained that the schema theory deals with pre-existing knowledge structures stored in the mind and how readers combine their previous knowledge with the text. Thus, researchers believe that background knowledge helps students understand texts. The framework connects teaching local culture-oriented texts (independent variable) to this theory, showing a reciprocal relationship between schema and cultural background. It also highlights how background knowledge enhances the effectiveness of the dependent variables. The goal is to foster active readers with good comprehension skills as the final outcome.

Methodology

Research Approach

The study employed a Design-Based Research (DBR) approach to assess students' current reading comprehension abilities, identify challenges, and implement a culturally relevant intervention. DBR is a flexible, iterative approach aimed at improving educational practices through a cycle of analysis, development, implementation, and

evaluation involving collaboration among practitioners, educators, and students (Al-Busaidi & Yusuf, 2021). An exploratory sequential mixed-method was used, starting with qualitative data collection and analysis to explore students' difficulties, followed by a quantitative phase to measure the intervention's effectiveness (Creswell, 2014).

Setting and Participants

This study was conducted in two government primary schools: Umity (SA) and Bandera (SB), located in Bonga Town Administration, Kafa Zone, Southwest Ethiopia People's Regional State (SWEPRS). Both semi-urban schools with diverse student populations were chosen purposefully for their accessibility, willingness to collaborate, and suitability for effective engagement. Participants included two sections of eighth-grade students: Section B from Umity Primary School (SA) (18 female and 16 male) and Section D from Bandera Primary School (SB) (20 female and 13 male) based on their academic performance, regular attendance, and perceived ability to engage with the intervention meaningfully. The majority of students from both schools were aged 14-15. Furthermore, two English teachers with availability, one from each school, participated in the study. Both held bachelor's degrees in English and had 9-12 years of teaching experience.

Instruments

Four primary data sources, a document analysis, classroom observations, reading comprehension tests, and teachers' reflections, were utilized. In the initial analysis phase, the study examined the cultural relevance of reading texts from an eighth-grade English textbook through document analysis. A pre-reading test assessed students' baseline comprehension of culturally unfamiliar texts. Classroom observations evaluated students' engagement and challenges in interacting with these texts.

Data Analysis

Data analysis included document review, classroom observation, and a pre-reading test to identify gaps and areas requiring intervention. Document analysis and classroom observations were examined thematically, while the pre-reading test data were analyzed using descriptive statistics. Using SPSS version 20, the researchers calculated the mean and standard deviation of students' pre-reading test scores to assess the initial comprehension level. After the intervention, data from pre-tests, post-tests, and delayed post-tests were analyzed using descriptive statistics and one-way ANOVA to evaluate changes over time. Qualitative data from classroom interaction and practitioners' reflections were analyzed thematically to capture shifts in engagement, teaching practices, and students' responses to local culture-based reading materials.

Figure 2. Model for Intervention

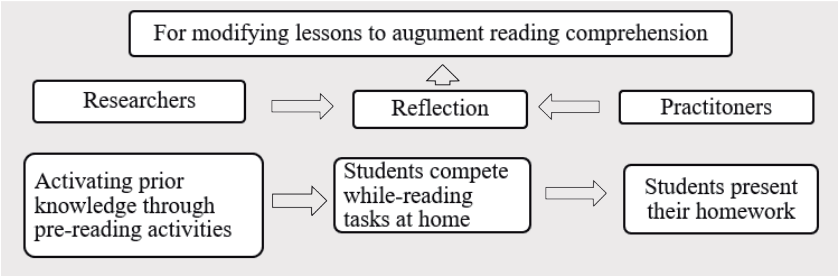


Figure 2 illustrates the intervention model techniques. First, students engage in local culture-based pre-reading activities during the lesson introduction. Then, they receive reading texts with while-reading activities to complete independently at home. Assigning homework can have a positive impact on students' learning and academic performances (Songsirisak & Jitpranee, 2019). Hence, in this experiment, students shared their work in small groups and presented it briefly to the class. Finally, they discussed their understanding of the new texts at the conclusion of the lesson. After each lesson, teachers reflected in a journal to evaluate strengths and weaknesses and to suggest improvements for future lessons.

Results

Phase I: Identifying Problems Based on the Research Questions

This phase addresses the following research questions:

RQ1: What cultural elements and dimensions are incorporated in the reading texts of the eighth-grade English textbook?

RQ2: What challenges do students face while reading the text in the eighth-grade English textbook?

Results of Textbook Analysis

To answer RQ1, a detailed textbook analysis was conducted to examine the cultural elements embedded in the eighth-grade English textbook and assess their relevance to students' lived experiences. The analysis focused on the number of units, types of texts, reading activities, and illustrations, particularly their alignment with students' cultural

contexts. Each unit includes reading passages, vocabulary tasks, and comprehension activities. Using criteria set by Hakim and Wahyuni (2024), the cultural dimension and elements of the content, including pre-reading prompts, were examined, as indicated in Figures 3 and 4 below:

Figure 3. Cultural Dimensions

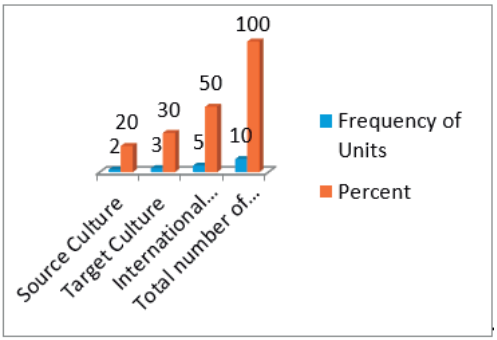
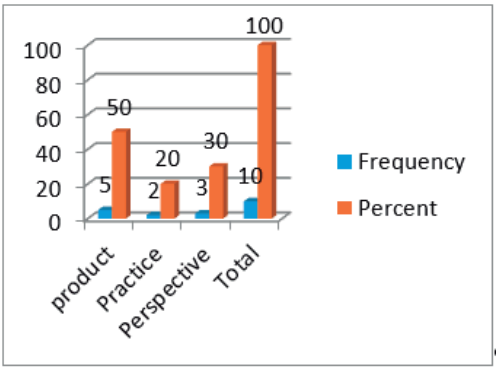


Figure 4. Cultural Elements



As shown in Figure 3, two texts (20%) belong to the source culture, three (30%) to the target culture, and five (50%) to the international culture. The findings indicate a greater emphasis on target and international culture. However, scholars argue that understanding one's own culture is essential before engaging with others (Baker, 2011). Thus, students tend to perform better when the reading materials relate to their background knowledge. On the other hand, Figure 4 shows five (50%) of the cultural elements in the English textbook related to cultural products from national and international contexts (units two, three, four, and ten), while cultural practices account

for only two (20%) of the elements, appearing in units one and seven. The remaining three (30%) represent global cultural perspectives. These findings suggest that the textbook emphasizes products rather than practices such as festivals, ceremonies, and daily life experiences. Shah et al. (2012) argue that students are more motivated to learn English when the language is presented in a context they can relate to.

Results of Classroom Observations

Before classroom observations, the researchers discussed the study's objectives, procedures, and the role of practitioners, explaining the collaborative nature of Design-Based Research (DBR). With practitioners' consent, the preliminary study commenced, focusing on observing teachers' classrooms as they taught reading lessons from students' English textbooks. The aim was to assess students' reading comprehension and engagement. An observation with 12 items, 4 for each reading stage (pre-reading, while-reading, and post-reading), was used. Three observations were conducted per school: October 10, 12, and 13, 2023, at School A (SA), and October 17, 18, and 20, 2023, at School B (SB). The baseline observation results indicate several issues in reading comprehension. Although SA had 34 students and SB had 33, the number of active participants at each reading stage was low, indicating several key challenges. For instance, while a few students showed the ability to answer comprehension questions correctly (6 of 34 in SA and 9 of 33 in SB during Observation 1 and 3), many students struggled with these tasks. This is evident from the relatively low number of students completing comprehension tasks on time, especially in the later observations. Despite some improvement in Observation 2, where 15 of 34 students in SA and 11 of 33 students in SB answered questions correctly, many students remained passive. Minimal engagement with tasks such as predicting the topic based on prior knowledge or cultural background further underscores the comprehension gap. This suggests that students are not fully connecting the reading material to their existing knowledge or experiences, resulting in lower comprehension.

Results of Pre-Reading Test

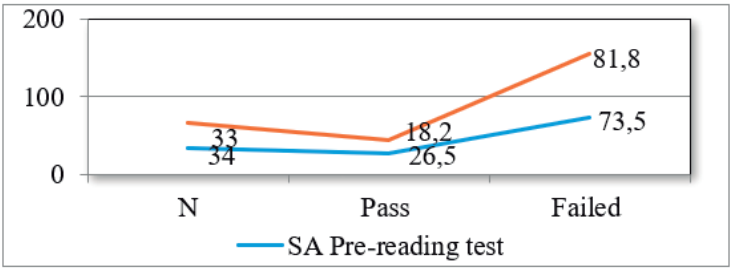
To address **RQ2**, a pre-reading comprehension test was administered to determine the current reading comprehension level of 8th-grade students at both schools.

Table 1. Descriptive Statistics of Pre-Reading Tests of SA and SB

Variable	N	Minimum	Maximum	Mean	Std. Deviation
SA Pre-reading test	34	5	14	8.65	2.308
SB Pre-reading test	33	6	12	9.00	1.732

As can be seen in the table above, the mean scores of SA and SB were (M=8.65 and 9.00 with SD=2.308 and 1.732), respectively. The maximum scores of two students from SA and three students from SB were 14 and 12out of 22, respectively. This suggests that students' reading comprehension ability is very poor.

Figure 5. Reading Performance of Both Schools



As shown in Figure 5, the pre-test frequency distributions for both SA and SB indicated that 9 (26.5%) and 6 (18.2%) participants, respectively, scored above 50%, while the remaining participants scored below 50%. This suggests a serious problem with students' comprehension.

Implications of the Baseline Study

The baseline assessment results revealed that students faced significant challenges with text comprehension, as evidenced by many students scoring below 50% on reading comprehension tests. National learning assessments also indicate similar issues. Moreover, document analysis demonstrated that students had difficulty engaging with unfamiliar topics, such as traffic rules and regulations, which were less relevant for students living in rural and suburban areas, significantly affecting their ability to comprehend the material. Classroom observations further indicated that students

rarely activated prior knowledge to aid their understanding of texts and frequently relied on teachers for answers rather than attempting to solve comprehension issues on their own. To address these challenges, using culturally relevant reading materials alongside interactive, student-centered activities could enhance students' reading comprehension and engagement. In this regard, Altin and Saracaloglu (2018) found that incorporating cultural materials into reading comprehension instruction can enhance students' vocabulary and ease comprehension difficulties.

Phase II: Development

The reading texts used in the intervention were originally developed by the researchers to reflect students' local culture, incorporating familiar themes such as traditional drinks, mourning ceremonies, local foods, marriage, traditional games, the Coffee ceremony, and the New Year Festival. The development process emphasized cultural relevance, linguistic simplicity, and genre suitability, using descriptive and narrative forms at a lower English level. The content was based on firsthand cultural knowledge and community insights. A validation discussion group with experienced English language educators was held in November 2023 at the College of Education. Then, the content was assessed for alignment with instructional goals, age and language appropriateness, and clarity in presentation and structure.

Phase III: Implementation

The first intervention took place at School A from December 11, 2023, to February 1, 2024, during the first semester. After refining the materials and data collection tools, the second iteration was conducted at School B from March 26, 2024, to May 15, 2024, in the second semester, using the same tools and evaluation methods. The intervention involved eight-week sessions focused on local culture-oriented reading texts, conducted by practitioners at both schools. Each week included two sessions, totaling 16 treatment sessions.

Phase IV: Evaluation

In this phase, the effectiveness of the intervention materials was assessed through formative and summative evaluations, following Lu's (2022) suggestions. The formative evaluation involved expert review, classroom observations, and reflections. The expert commented on innovative ideas and suggested that the intervention materials could benefit students from Grade 8 through higher education, particularly by addressing declining reading motivation driven by distractions such as social media. After reviewing the prototype, the experts provided feedback, recommending

adjustments such as reducing time-consuming activities and shortening texts for easier comprehension. Based on this input, the intervention materials were revised to better meet the intervention's goals.

Results of Pos-Reading Tests

RQ3: Does the instructional intervention using local culture-oriented texts lead to a significant improvement in students' reading comprehension?

Before conducting inferential analysis, the reliability and normality of data were examined, as recommended by Kozak (2023). Reliability was assessed using test-retest data from 67 participants across both schools prior to the intervention. Following the Gravetter and Wallnau (2015) guidelines, a one-way ANOVA was then employed to determine significant differences among pre-test, post-test, and delayed post-test scores.

Table 2. The Test Re-Test Correlation Result of Reading Comprehension

		Test 1	**Test 2**
Test 1	Pearson Correlation	1	.761**
Test 1	Sig. (2-tailed)		.000
Test 1	N	67	67
Test 2	Pearson Correlation	.761**	1
Test 2	Sig. (2-tailed)	.000	
Test 2	N	67	67

The test-retest reliability score of .761, with a p-value less than .05, suggests a high level of consistency over time for the tests conducted. This indicates that the results are reliable and the correlation supports the validity of the study's findings.

Table 3. Result of School A and B's Reading Test of Normality

		Kolmogo-rov-Smir-nova	**Kolmogo-rov-Smir-nova**	**Kolmogo-rov-Smir-nova**	**Shapi-ro-Wilk**	**Shapi-ro-Wilk**	**Shapi-ro-Wilk**
		Statistic	df	Sig.	Statistic	df	Sig.
SA	Pre- test	.150	33	.058	.942	33	.080
SA	Prost- test	.088	33	.200*	.979	33	.750
SA	Delay Post-test	.129	33	.177	.963	33	.305
SB	Pre- test	.142	33	.087	.943	33	.082
SB	Post- test	.147	33	.068	.962	33	.285
SB	Delay Post-test	.135	33	.133	.968	33	.419

The Shapiro-Wilk test results for SA, with p-values of 0.08, 0.750, and 0.305 for the pre-test, post-test, and delay post-test, respectively, indicate that the data are normally distributed. Similarly, the Shapiro-Wilk test results for SB, with p-values of .082, .285, and .419 for the pre-test, post-test, and delay post-test, respectively, suggest that the data are also normally distributed.

Table 4. Descriptive Statistics of SA and SB's Pre-Post and Delay Post-Reading Tests

Codes	**Time Point**	**N**	**Mean**	**Std. D**	**Std. Error**	**95% Confidence Interval for Mean**	**95% Confidence Interval for Mean**
Codes	Time Point	N	Mean	Std. D	Std. Error	Lower Bound	Upper Bound
SA	Pre-Test	34	8.65	2.308	.396	7.84	9.45
SA	Post-Test	34	10.56	2.501	.429	9.69	11.43
SA	Delay Post-Test	34	13.56	2.414	.414	12.72	14.40
SB	Pre-Test	33	9.00	1.732	.301	8.38	9.61
SB	Post-Test	33	10.66	1.979	.344	9.96	11.36
SB	Delay Post-Test	33	14.18	2.518	.438	13.28	15.07

Table 4 shows that both schools, SA and SB, improved their scores from the pre-test to the delayed post-test. For example, SA's mean score increased from 8.65 to 13.56, while Group SB's mean score rose from 9.00 to 14.18. This suggests that performance improves over time for both groups.

Table 6. One-Way ANOVA Test Results for School A and School B

School code	**Time Group**	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
SA	Between Groups	416.843	2	208.422	35.91	.000
SA	Within Groups	574.529	99	5.803		
SB	Between Groups	461.838	2	230.919	52.25	.000
SB	Within Groups	424.242	96	4.419		

1

The one-way ANOVA results for both groups, SA and SB, indicate statistically significant differences across time points. For School A, the F-value is 35.91 and the P-value is .000, indicating a significant difference. Likewise, for School B, the F-value is 52.25 and the P-value is .000, indicating a significant difference. Thus, the results indicate that there are statistically significant differences in the mean scores across the different time points (pre-test, post-test, and delayed post-test) for each school.

Discussion

The study aimed to enhance students' reading comprehension using culture-oriented local texts through a design-based research (DBR) framework implemented in four phases. Phase I indicated significant challenges in students' reading comprehension at both participating schools. Textbook analysis and classroom observations revealed that students were struggling with unfamiliar texts, difficult vocabulary, and low engagement. Pre-test results further support this, with only 26.5% of students at School A and 18.2% at School B scoring above 50%, indicating the need for intervention. In line with this, the studies' findings suggested that incorporating local culture into reading materials could promote stronger engagement and enhance reading comprehension by connecting texts to students' experiences (Fu, 2018; Aminullah et al., 2019; Royani, 2012). This emphasized the need for culturally relevant materials to make learning more engaging and relevant, thereby enhancing students' reading comprehension skills. In phase II, the intervention materials were designed to incorporate culturally familiar elements, such as traditional games, food, ceremonies, and local festivals. Experts reviewed the initial materials and suggested revisions, such as shortening texts and simplifying vocabulary to better match students' reading level (Miller & Kim, 2021). This revision helped ensure that materials were both culturally relevant and cognitively appropriate, aligning with the intervention's educational goals.

In phase III, the intervention was implemented over eight weeks at each school. With teacher support, the localized reading texts were incorporated into the existing curriculum. This practical phase enabled real-time feedback and iterative refinement in DBR. The final phase involved both formative and summative assessments to estimate the effectiveness of the intervention. Formative evaluations, including observations and expert reviews, provided ongoing feedback during the intervention, enabling adjustments as needed. Summative evaluations, including post-tests and delayed post-tests, assessed the intervention's overall impact after its completion. The assessment phase, or semi-summative evaluation, is crucial for determining whether an intervention achieves its objectives (Barab & Squire, 2004). The test-retest reliability score (0.761, $p<.05$) confirmed consistency, while the Shapiro-Wilk test indicated normality, allowing for one-way ANOVA. Results showed significant changes in reading comprehension across both schools. For instance, School A's mean score

increased from 8.65 (pre-test) to 13.56 (delayed post-test), and School B's from 9.00 to 14.18. These findings align with previous studies that emphasize the effectiveness of culturally relevant reading materials in improving comprehension and motivation (Altin & Saracaloglu, 2018; Chegeni & Servati, 2020; Nambiar et al., 2020). In general, the results demonstrate that using local culture-based texts helped address the reading comprehension issues identified in Phase I and contributed to improving learning objectives.

Conclusion and Suggestions

The study found that incorporating local culture-oriented texts significantly improved eighth-grade students' reading comprehension. Initially, challenges such as low interest and difficulty comprehending textbook content were addressed through the intervention. Both statistical analysis and classroom feedback confirmed that the intervention material enhanced students' engagement and comprehension. School B is showing slightly higher scores, though improvement is evident in both contexts. In line with this, Darong (2022) suggested that local culture-based texts can help students become familiar with the materials. Furthermore, Wutun (2018) suggested that incorporating local culture-based reading materials into language textbooks can foster a positive, engaging learning environment in the classroom. Therefore, educators should consider using local culture-based texts in their teaching. Such additional materials can address comprehension issues and make learning more relevant to students' lives. Future research should examine the long-term effects of culture-based interventions across diverse settings and broader populations.

Limitations

Despite its promising results, the study has several limitations. First, the sample size may not fully represent the broader population of eighth-grade students in the study area, though it was adequate for preliminary findings; second, even though the intervention lasted several weeks, it may not be sufficient to sustain long-term improvements in students' reading comprehension skills.

Acknowledgement

The authors of this manuscript would like to thank the participants for their valuable contributions and active participation in the intervention.

References

Adebola, O. O., Modupe, K. G., & Olufunke, A. M. (2022). Accessing the role of local culture in community development. *International Journal of Research and Innovation in Social Science, 6*(11), 414–418.

Al-Busaidi, S., & Yusuf, T. (2021). A model for implementing problem-based language learning: Experiences from a seven-year journey. *International Journal of Learning, Teaching and Educational Research, 20*(1), 1–21. https://doi.org/10.26803/ijlter.20.1.1

Altin, M., & Saracaloglu, A. S. (2018). Effect of reading comprehension instruction enriched with cultural materials on English learning. *Cogent Education, 5*(1), 1–14. https://doi.org/10.1080/2331186X.2018.1475589

Aminullah, F., Sada, C., & Sudarsono, S. (2019). Local culture-based reading materials for EFL context. In *Proceedings of the International Conference on Teaching and Education (ICoTE)* (Vol. 2, No. 2, pp. 193–197). https://doi.org/10.26418/icote.v2i2.38227

Baker, W. (2011). From cultural awareness to intercultural awareness: Culture in ELT. *ELT Journal, 66*(1), 62–70.

Barab, S., & Squire, K. (2004). Introduction: Design-based research: Putting a stake in the ground. *The Journal of the Learning Sciences, 13*(1), 1–14.

Brown, D. (2001). *Teaching by principles: An interactive approach to language pedagogy* (2nd ed.). Longman.

Brown, H. D. (2007). *Principles of language learning and teaching* (5th ed.). Pearson Education.

Chegeni, F. B., & Servati, S. (2020). Reading comprehension of L1 culture- and L2 culture-based texts: Same or different? *Scholarly Journal, 10*(3), 57–63.

Ciocoi-Pop, M.-M. (2020). Reading comprehension for ESL students: Processes of perceiving texts. *International Conference Knowledge-Based Organization, 26*(2).

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.

Darong, H. C. (2022). Local-culture-based materials in online cooperative learning: Improving reading achievement in the Indonesian context. *Journal of Innovation in Educational and Cultural Research, 3*(3), 361–372.

Fu, W. (2018). Read from local to global: A culture-based reading material. *Advances in Social Sciences Research Journal, 5*(3), 57–65. https://doi.org/10.18488/journal.1.2018.53.57.65

Gravetter, F. J., & Wallnau, L. B. (2015). *Statistics for the behavioral sciences* (10th ed.). Cengage Learning.

Hadianto, D., Damaianti, V. S., Mulyati, Y., & Sastromiharjo, A. (2022). Effectiveness of literacy teaching design integrating local culture discourse and activities to enhance reading skills. *Cogent Education, 9*(1), 1–13.

Hakim, A. N. M., & Wahyuni, D. S. (2024). Cultural content in English textbooks: Analyzing the representation of culture in the English textbook *English for Change*. *Journal of English Language Teaching and Learning, 6*(1), 13–22.

Hayati, H. A., & Puspitaloka, N. (2022). An analysis of students' reading comprehension difficulties during the COVID-19 pandemic in online classes at a junior high school. *Journal of English Teaching, 8*(2), 293–300.

Intang, H., Sulfasyah, & Idawati. (2023). The effectiveness of local culture-based teaching materials for reading comprehension assisted by Adobe Flash CS6 for fifth-grade students in elementary school. *Indonesian Values and Character Education Journal, 6*(2), 134–142. https://doi.org/10.23887/ivcej.v6i2.67613

Khan, I. (2014). Teachers' perceptions of the significance of local culture in foreign language learning. *Journal of English Language and Literature, 1*(3), 65–70.

Koyra, Y. Y., & Jarssa, A. B. (2021). Assessment of students' reading comprehension status: The instance of grade eight students at Mangudo Primary School. *Scope Journal, 11*(3), 134–144.

Kozak, K. (2023). *Statistics using technology* (2nd ed.). NSW, Australia.

Kramsch, C. (2012). Culture in foreign language teaching. *Iranian Journal of Language Teaching Research, 1*(1), 57–78.

Krasniqi, K. (2019). The relation between language and culture: Case study Albanian language. *Linguistics and Literature Studies, 7*(2).

Kumaravadivelu, B. (2003). *Beyond methods: Macro strategies for language teaching*. Yale University Press.

Kusumarasdyati, K. (2023). Reading comprehension in EFL: An overview. In *Proceedings of the International Joint Conference on Arts and Humanities 2022 (IJCAH 2022)*.

Lee, K. Y. (2009). Treating culture: What 11 high school EFL conversation textbooks in South Korea teach. *English Teaching Practice and Critique, 8,* 76–96.

Lu, X., & Meredith, A. (2022). Formative and summative evaluations in educational interventions. *Educational Assessment Review, 29*(1), 55–70.

Miller, T., & Kim, S. (2021). Age-appropriate texts for language learning. *Educational Text Review, 33*(1), 23–37.

Moneka, H., Yukamana, H., & Mayasari, S. (2024). Developing local culture-based instructional materials of English reading for social welfare learners. *Journal of Language and Literature Studies.*https://doi.org/10.36312/jolls.v5i2.2705

Mulata, E., & Regassa, T. (2022). Teaching reading skills in EFL classes: Procedures teachers use to help learners with low reading skills. *Journal of Language Teaching and Research, 9*(1). https://doi.org/10.1080/2331186X.2022.2093493

Nambiar, R. M. K., Ibrahim, N., Hashim, R. S., Yasin, R. M., Azman, H., Yusof, N. M., & Mustaffa, R. (2020). Impact of local culture-based reading materials on students' skill development and confidence in English. *Universal Journal of Educational Research, 8*(2), 445–453. https://doi.org/10.13189/ujer.2020.080215

Nassaji, H. (2002). Schema theory and knowledge-based processes in second language reading comprehension: A need for alternative perspectives. *Language Learning Journal, 52*(2), 439–481.

NEAEA (National Examination and Evaluation Agency). (2004). *Ethiopian second national learning assessment of grades 4 and 8 students.* Addis Ababa. http://213.55.101.25/images/sirna_bar/Grade_4-NLAReport2004.pdf

NEAEA (National Examination and Evaluation Agency). (2016). *Ethiopian fifth national learning assessment of grades 4 and 8 students.* Addis Ababa. http://213.55.101.25/images/sirna_bar/Grade_4_and_8_NLA_2015.pdf

Oktarina, Y., Inderawati, R., & Petrus, I. (2022). Developing local culture-based EFL reading materials for 21st-century learning. *Studies in English Language and Education, 9*(3), 1128–1147.

Ratminingsih, N. M., Budasi, I. G., & Kurnia, W. D. A. (2020). Local culture-based storybook and its effect on reading competence. *International Journal of Instruction, 13*(2), 253–268. https://doi.org/10.29333/iji.2020.13218a

Royani, M. (2012). The use of local culture texts for enthusiastic English reading teaching. *The International Journal of Social Science, 7*(1), 130–135.

SAGE. (2021). *Conceptual frameworks in research, Chapter Two.* SAGE Publications.

Selvathurai, S., & Ismail, H. H. (2024). Second language learners' difficulties in reading comprehension: A review. *International Journal of Academic Research in Progressive Education and Development, 13*(4), 3840–3851.

Shah, S. K., Afsar, A., Fazal e Haq, H. M., & Khan, Z. A. (2012). Course contents of English language textbooks and their relevance to learners' culture in an Islamic context. *Journal of Education and Practice, 3*(12), 165–180.

Songsirisak, P., & Jitpranee, J. (2019). Impact of homework assignment on student learning. *Journal of Education Naresuan University, 21*(2).

Teo, A., & Kaewsakul, W. (2016). Cultural contents in fundamental English coursebooks. *NIDA Journal of Language and Communication, 21*(27), 1–17. https://so04.tci-thaijo.org/index.php/NJLC/article/view/54551

Wutun, A., Arafah, B., & Yassi, A. (2018). Integrating local culture in English language teaching to enhance learners' emotion to speak English. *International Journal of English Language Teaching, 6*(4), 48–56. https://doi.org/10.37745/ijelt.13

Authors

Atirse Awago Atumo is an instructor at Bonga College of Education and currently a Doctor of Education (DEDE) candidate in English language at Jimma University. He earned his Bachelor degree in English from Bahir Dar University. Following graduation, he served as an English teacher at Bonga Comprehensive High School (Preparatory) for five years. He later obtained his MA in TEFL from Addis Ababa University. Since completing his master's degree, he has been teaching English at Bonga College of Education for the past 12 years. He is now in the process of completing his doctoral dissertation at Jimma University.

ORCID: https://orcid.org/0009-0008-7447-0802

Getachew Seyoum Woldemariam holds a Master's Degree in TESP from Aston University, UK, and PhD in ELT from Panjab University, Chandigarh, India. He is an associate professor in the department of English language and literature at Jimma University, Ethiopia, where he serves as instructor and supervisor of PhD students. He has published several articles in ELT in different reputable journals and his research interests include writing strategies, language learning strategies, language skills, and assessment.

ORCID: https://orcid.org/0000-0003-0881-2807

Abbi Lemma joined Bahir Dar University for his first-degree education and graduated with a B.Ed. Degree in 2003 G.C. Then, he joined Addis Ababa University to attend his second degree and graduated in August 2008. He pursued his Ph.D. in Education at Andhra University, India, and graduated in January 2019. He has more than twenty years of work experience high school, college and different universities. From 2010 onwards, he has been serving as an instructor, researcher, leader, and professional development expert here at Jimma University. He is actively participating in research and community service activities, in which he has published and co-published more than 15 research articles to date.

ORCID: https://orcid.org/0000-0002-8126-6083