2433-6505-1-PB.pdf

by Turnitin Student

Fostering Cross-cultural Competence and Reading Comprehension through Digital Shared Reading in an Indonesian EFL Classroom

Lanlan Muhria[1]*, Tabrani ZA[2], Vinsensia Anisa Citta Erydani[3], Desi Surlitasari Dewi[4], Mohammed Abbas Mahdi[5]

[1]Universitas Sindang Kasih Majalengka, Indonesia
[2]Universitas Serambi Mekah, Indonesia
[3]STIE Bank BPD Jateng, Indonesia
[4]Universitas Riau Kepulauan, Indonesia
[5]University of Kerbala, Iraq

*Correspondence to: misterlan@uskm.ac.id

Abstract: Reading comprehension requires linguistic proficiency and the capacity to understand and interpret cultural elements embedded in the texts. However, many EFL students struggle with cross-cultural competence, affecting their comprehension of diverse reading materials. This study investigates the effectiveness of digital shared reading in enhancing both reading comprehension and cross-cultural competence among junior high school students in Indonesia. Employing a pre-experimental pre-test post-test design, the study involved 34 students in a structured digital shared reading intervention. Data were collected through reading comprehension tests and the Cultural Intelligence Scale (CQ) by Ang and Dyne. The results, analyzed using paired sample t-tests, indicated a statistically significant improvement in reading comprehension (t = -10.539, p = .000) and cross-cultural competence (t = -14.457, p = .000) after the intervention. These findings demonstrate the potential of digital shared reading as an effective pedagogical tool to foster cross-cultural awareness and enhance reading comprehension in EFL settings. This study contributes to educational research by showcasing how digital literacy and cultural exposure can be integrated into language learning.

Keywords: cross-cultural competence; digital shared reading; EFL; reading comprehension;

INTRODUCTION

Reading is a key ability required for academic success and lifetime learning. It enables individuals to acquire knowledge, develop critical thinking skills, and engage with diverse perspectives (An Le & Hockey, 2022; Southworth, 2022; Yulian, 2021). In English as a Foreign Language (EFL) learning, reading competence is particularly important as it allows students to access information, understand global cultures, and improve their linguistic competence (Gràcia et al., 2022; Hazaymeh, 2021; Shi, 2023). However, reading comprehension in EFL contexts extends beyond simply decoding words and sentences as it requires the ability to interpret meaning influenced by cultural contexts (Bensalah & Gueroudj, 2020; Cooper & Lilyea, 2022; Dewi et al., 2022; Mahmoudi, 2017). Without adequate cross-cultural competence, students may struggle to fully understand texts that contain cultural references, idiomatic expressions, or unfamiliar social norms (Dewi et al., 2022; Hajiyeva, 2024; Namaziandost et al., 2021).

In Indonesia, reading comprehension remains a significant challenge for EFL learners (Hayati & Puspitaloka, 2022; Kusumarasdyati, 2023). The Program for International Student Assessment's (PISA) results consistently show that Indonesian students perform below the international average in reading literacy (Sholikah & Pertiwi, 2021). Many factors contribute to this issue, including limited access to diverse reading materials, a strong focus on rote learning, and a lack of exposure to culturally embedded texts (Ulkhaq, 2024). The Indonesian national curriculum emphasizes the importance of developing students' literacy skills, including interpreting and critically analyzing texts from different cultural backgrounds (Puad & Ashton, 2023). However, despite these curriculum objectives, many students struggle to engage meaningfully with reading materials due to limited cultural knowledge and traditional teacher-centred reading instruction that does not encourage active engagement (Azzahra & Nurkamto, 2024).

An ideal reading instruction approach should develop students' language competence and enhance their cross-cultural competence. Cross-cultural competences enable students to understand diverse perspectives and interpret texts accurately (Hajiyeva, 2024; Shadiev et al., 2021). Cross-cultural competence is recognizing, understanding, and appreciating different cultural perspectives, values, and traditions (Liu et al., 2021; Ting, 2023). Research has shown that readers with higher cross-cultural competence tend to comprehend texts more

effectively because they can make connections between their prior knowledge and the cultural elements in the text (Alyeksyeyeva et al., 2022; Dewi et al., 2022; Huang, 2023; Mahmoudi, 2017).

For Indonesian EFL students, the lack of cultural background knowledge can lead to misinterpretations of texts that contain culturally specific information (Azzahra & Nurkamto, 2024; Diep et al., 2022; Hasnah et al., 2024; Munandar & Newton, 2021). For instance, Western texts often emphasize individualism, while Indonesian culture traditionally values collectivism (Albert et al., 2009; Gupta & Sukamto, 2020; Wagiman, 1997). Without understanding these cultural differences, students may struggle to grasp the characters' motivations or the implicit themes in a text. Similarly, idioms, humor, and figurative language often lose meaning when cultural context is not considered (Goshkheteliani, 2013). Therefore, fostering cross-cultural competence in EFL reading instruction is essential for enhancing students' comprehension and critical thinking skills. One way to achieve this is by incorporating Digital Shared Reading (DSR, henceforth), which integrates interactive reading experiences with digital resources (McNab, 2016; Nicholas & Paatsch, 2024). This method allows students to engage with multimodal texts, including visual, audio, and interactive content, making it easier to grasp cultural nuances and improve reading comprehension (Dewi, 2012; Gustafsson et al., 2023).

Previous studies have examined the growing importance of intercultural competence and cultural awareness in EFL learning. Sarsenbaeva (2021) highlights the role of English as a foreign language as a resource for fostering intercultural competence, emphasizing the need for pedagogical changes to adapt to global shifts. Similarly, Yurtsever and Özel (2021) conducted a meta-synthesis of 50 studies on cultural awareness in EFL classrooms, identifying key themes such as lesson components, interaction, and personal connection as fundamental to developing cultural understanding. Hellerstein-Yehezkel (2017) further explores the link between cross-cultural competence and reading competence, arguing that students with higher intercultural competence, regardless of cultural background, engage more effectively in cross-cultural communication and textual interpretation. In a more recent study, Sliouat and Benfliali (2025) examine EFL teachers' perspectives on integrating cross-cultural competence in high school classrooms. Their findings reveal that while teachers acknowledge the importance of cross-cultural skills, they face challenges such as students' proficiency levels and limited resources.

On the other hand, research on DSR and reading comprehension has primarily focused on comprehension, interaction skills, and self-regulated learning. Altamimi et al. (2023) found that implementing shared reading with KG students led to significant improvements in comprehension and engagement, while Dewi (2012) demonstrated that the method was particularly effective for students with low reading anxiety, suggesting the importance of aligning teaching strategies with students' emotional needs. Similarly, Perry et al. (2018) emphasized how teacher-guided shared reading fosters autonomy, metacognitive skills, and student collaboration. In contrast, studies on digital reading environments reveal mixed findings. Ortlieb et al. (2012) showed that hybrid and digital-based instruction significantly improved elementary students' comprehension, while Strouse et al. (2022) found that pre-readers engaged differently with print and digital reading, with digital media exposure positively predicting comprehension but not necessarily engagement. These findings suggest that while both shared and digital reading approaches contribute to literacy development, their effectiveness depends on students' characteristics, learning design, and the level of interactivity in reading activities.

The existing research on shared reading has primarily focused on its impact on young students' reading comprehension, engagement, and self-regulated learning (Altamimi et al., 2023; Ortlieb et al., 2012; Perry et al., 2018; Strouse et al., 2022). However, these studies have not addressed their potential for enhancing cross-cultural competence, particularly in EFL contexts. Moreover, while previous research has examined the role of digital reading environments in comprehension (Ortlieb et al., 2012) and the interaction between reading methods and student characteristics (Dewi, 2012), little attention has been given to how digital shared reading can simultaneously improve both reading comprehension and cross-cultural competence. The novelty of the current study lies in its investigation of digital shared reading (DSR) as an innovative approach to fostering both linguistic and cross-cultural understanding among Indonesian junior high school EFL students. Unlike previous studies that primarily focus on linguistic proficiency or isolated reading strategies, this study uniquely addresses the integration of digital literacy with cross-cultural competence, filling a significant gap in EFL research. By examining the impact of DSR on both reading comprehension and cultural awareness, this study provides empirical evidence of how digital interventions can enhance students' ability to interpret culturally embedded texts. The contribution of this research to the scientific field lies in its demonstration of the pedagogical potential of digital shared reading to improve both linguistic and cultural competencies simultaneously. This dual focus offers valuable insights for educators and researchers seeking to integrate digital literacy into EFL teaching practices. Additionally, by analyzing the relationship between cross-cultural competence and reading comprehension, the study advances our understanding of how cultural intelligence influences language learning outcomes.

METHODS

This study used a single group pre-test and post-test pre-experimental design (Creswell, 2014). It aimed to examine the impact of digital shared reading (DSR) on cross-cultural competence and reading comprehension among Indonesian EFL students. The study involved a single experimental group receiving a learning intervention, with no control group for comparison (Creswell, 2015). The research measured students' cross-cultural competence and reading comprehension before and after the intervention to determine any significant improvement. The participants of this study were 34 EFL students from a private junior high school in Indonesia, selected through total sampling. All students were enrolled in the same class, ensuring uniformity in learning exposure. Their proficiency level was classified as intermediate, based on their English course placement records.

The data collection process in this study was systematically designed to measure the impact of digital shared reading (DSR) on cross-cultural competence (CCC) and reading comprehension among EFL students. A pre-test and post-test design assessed students' abilities before and after the intervention. The study utilized two main instruments: the Cultural Intelligence (CQ) Scale developed by Ang and Van Dyne (2008) to measure cross-cultural competence, and a Reading Comprehension Test (RCT) to evaluate students' ability to understand culturally embedded texts. The Cultural Intelligence (CQ) Scale is a well-established instrument that assesses an individual's capability to function effectively in cross-cultural settings. It consists of four dimensions: metacognitive CQ, cognitive CQ, motivational CQ, and behavioral CQ. The questionnaire includes 20 Likert-scale items (1 to 7), with higher scores indicating a stronger ability to navigate cross-cultural interactions. This instrument has been widely used in cross-cultural research and has demonstrated high validity and reliability in previous studies. Before administration, the CQ Scale was reviewed by two experts in applied linguistics to ensure relevance to the study context. The scale's reliability was confirmed using Cronbach's alpha, with an acceptable internal consistency threshold of $\alpha \geq 0.80$. The Reading Comprehension Test (RCT) was designed to measure students' comprehension of culturally diverse texts. The test consisted of multiple-choice and open-ended questions assessing literal, inferential, and evaluative comprehension. The texts were selected based on rich cultural content, covering different perspectives, traditions, and intercultural interactions. Expert judgment validated the test, ensuring alignment with the study's objectives.

The pre-test was administered in the first week, where students completed both the CQ Scale and RCT under standardized conditions. The intervention phase lasted four weeks, during which students engaged in digital shared reading sessions using interactive reading materials enriched with diverse cultural perspectives. These materials were presented in digital formats with embedded multimedia elements to enhance engagement. The post-test was conducted in the sixth week, using the same instruments as the pre-test to evaluate cross-cultural competence and reading comprehension changes. Figure 1 illustrates the sequential stages of the research process, which consisted of three main phases: pre-test, intervention, and post-test. The flowchart provides a visual summary of this research design, highlighting the systematic integration of digital tools in EFL instruction.
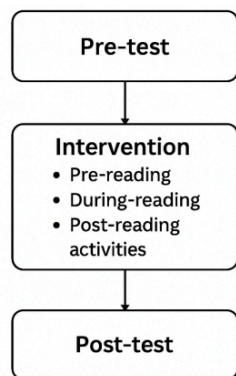
```
┌─────────────────┐
│    Pre-test     │
└─────────────────┘
         │
         ▼
┌─────────────────┐
│  Intervention   │
│  • Pre-reading  │
│  • During-reading
│  • Post-reading │
│    activities   │
└─────────────────┘
         │
         ▼
┌─────────────────┐
│   Post-test     │
└─────────────────┘
```

Figure 1. Flowchart of research stages

The Digital Shared Reading (DSR) intervention followed a structured procedure across four weeks, integrating pre-reading, during-reading, and post-reading activities (Strouse et al., 2022). The sessions

enhanced reading comprehension and cross-cultural competence (CCC) by engaging students in interactive reading tasks. In Pre-Reading Activities, students previewed the digital text by skimming the title, headings, images, and key sentences to activate prior knowledge and predict the text's cultural context. The teacher guided this phase with prompts such as, "Based on the title and images, what do you think this text will discuss?" Students used digital annotation tools to highlight unfamiliar words and identify key vocabulary. The teacher provided a list of culturally specific terms (e.g., "hospitality," "taboo," "tradition") and asked students to infer their meanings based on context. Vocabulary learning was reinforced through short discussion prompts such as "This text mentions 'taboo.' What does this word mean in your culture?" Students made predictions by discussing possible themes, cultural conflicts, or character behaviors they expected in the text.

In during-reading activities, students read the digital texts individually or in small groups, using annotations and discussion forums to engage with the content. They highlighted cultural differences, idioms, and unique expressions, sharing their insights in real-time. The teacher facilitated discussions with targeted prompts to encourage critical thinking about cultural perspectives: "What cultural values are evident in this passage?", "How do the characters' actions reflect their cultural background?" Students used a discussion board to share their observations and respond to their peers, fostering an interactive reading experience. After reading, students completed comprehension quizzes to assess their understanding of content and cultural elements. They then engaged in self-reflection and shared the reflection in a group discussion.

The collected data were analysed using quantitative statistical methods to measure the effects of DSR on reading comprehension and cross-cultural competence. The data analysis involved descriptive statistics, paired sample t-tests, and correlation analysis. To analyse the effects of DSR on students' reading comprehension, pre-test and post-test of reading comprehension scores were compared using a paired sample t-test (Dewi et al., 2025). This test determined whether there was a significant improvement in students' reading comprehension after the intervention. Descriptive statistics, including mean, standard deviation, and percentage of improvement, were also calculated to provide an overview of students' progress (Creswell, 2015). Before conducting the paired sample t-tests, a normality test was performed to assess whether the pre-test and post-test scores for reading comprehension and cross-cultural competence were normally distributed. The Shapiro-Wilk test was used, as it is suitable for small sample sizes (n < 50). If the p-value from the Shapiro-Wilk test was greater than 0.05, the data were considered normally distributed, and the paired sample t-test could be applied (Kwak & Park, 2019). Similarly, a similar set of analyses was conducted to analyze the effects of DSR on cross-cultural competence. A Pearson correlation analysis was also conducted to examine the relationship between reading comprehension and cross-cultural competence (Dewi et al., 2025). This analysis aimed to determine whether students who demonstrated higher cross-cultural competence also exhibited better reading comprehension, providing insights into the interplay between cross-cultural competence and reading ability. All statistical analyses were performed using SPSS. The significance level was set at p < 0.05.

RESULT AND DISCUSSION

Before hypothesis testing, a normality test was conducted to confirm whether the data met the assumptions required for parametric analysis. The One-Sample Kolmogorov-Smirnov Test was employed for this purpose. This test checks whether the distribution of the residuals significantly deviates from a normal distribution. The results showed that the residuals were normally distributed, with a test statistic of 0.080. The significance value was 0.200 (p > 0.05), indicating no significant deviation from normality. These results are presented in Table 1. Further statistical testing was considered appropriate since the data met the normality assumption. A paired sample t-test was then conducted to determine whether Digital Shared Reading (DSR) significantly improved students' cross-cultural competence.

Table 1. Cross-Cultural Competence Data Normality

N	Test Statistic	Sig. (2-tailed)
30	0.080	0.200

Since the data met the normality assumption, a paired sample t-test was conducted to determine whether Digital Shared Reading (DSR) significantly improved students' cross-cultural competence. This test commonly compares the means of two related groups to identify significant differences. This study was applied to compare students' performance before and after the intervention. The pre-test measured their initial level of cross-cultural competence, while the post-test assessed any changes after participating in the DSR activities. Conducting the t-test allowed the researchers to evaluate whether the observed differences were due to chance or the effect of the intervention. A statistically significant result would indicate that DSR had a meaningful impact on the students' cross-cultural competence. This method provides robust evidence for the effectiveness of the intervention. The mean scores of the pre-test and post-test are displayed in Table 2.

Table 2. Cross-cultural Competence Scores

		Mean	N
Pair 1	Pre-test	59.6000	30
	Posttest	74.9333	30

Table 2 presents the descriptive statistics for students' cross-cultural competence scores before and after the Digital Shared Reading (DSR) intervention. The mean score in the pre-test was 59.60, while the post-test mean score increased to 74.93, indicating an improvement of 15.33 points. This suggests that students demonstrated a noticeable enhancement in cross-cultural competence following the intervention. The sample consisted of 30 students, with standard deviations of 16.86 for the pre-test and 17.61 for the post-test, reflecting some student scores. Additionally, the standard error of the mean was 3.08 for the pre-test and 3.22 for the post-test, showing the precision of the sample mean estimates. While these descriptive results suggest a positive effect of DSR on cross-cultural competence, further statistical analysis through a paired sample t-test is necessary to determine whether the observed improvement is statistically significant. Table 3 presents the result of the paired t-test.

Table 3. The Difference between Cross-cultural Competence

Mean Difference	Sd	t	Df	Sig. (2-tailed)
-15.33	5.81	-14.46	29	.000

Table 3 presents the results of the paired samples t-test, which was conducted to determine whether the improvement in students' cross-cultural competence scores after the Digital Shared Reading (DSR) intervention was statistically significant. The mean difference between the pre-test and post-test scores was -15.33, indicating that students' cross-cultural competence significantly increased after the intervention. The standard deviation of 5.81 reflects the variability in the differences between pre-test and post-test scores, while the standard error mean of 1.06 suggests a precise estimate of this difference. The t-value of -14.46, with 29 degrees of freedom, indicates a strong effect, and the significance value (p-value) of .000 confirms that the difference is statistically significant at the 0.05 level. These findings suggest that the DSR intervention had a meaningful impact on improving students' cross-cultural competence.

The results of the paired samples t-test indicate a statistically significant improvement in students' cross-cultural competence after the Digital Shared Reading (DSR) intervention. This finding suggests that integrating digital reading activities with culturally diverse texts can effectively enhance students' awareness, understanding, and adaptability to different cultural perspectives. The significant improvement in students' cross-cultural competence following the Digital Shared Reading (DSR) intervention reinforces the notion that integrating digital resources into EFL reading instruction effectively fosters intercultural understanding. One of the key advantages of DSR is its ability to expose students to diverse cultural perspectives through multimodal texts, including videos, images, and interactive content. These resources transcend traditional printed texts by vividly presenting cultural practices, social norms, and real-world contexts, making abstract cultural concepts more tangible and relatable. This finding aligns with McNab (2016), who argued that DSR enhances students' engagement with multimodal texts, allowing them to simultaneously interact with visual, auditory, and textual elements. Such an approach provides students with a richer cultural context, facilitating deeper comprehension of diverse perspectives embedded in the texts.

Moreover, the results support that cross-cultural competence is closely tied to reading comprehension and critical thinking skills. Gustafsson et al. (2023) emphasized that exposure to multimodal texts encourages students to interpret cultural nuances more effectively, thereby developing a more nuanced understanding of different perspectives. The significant improvement observed in the present study suggests that DSR not only aids in language comprehension but also cultivates the ability to analyze and critically engage with cultural content. One possible explanation for this improvement is that DSR facilitates active engagement with culturally rich texts, allowing students to connect their prior knowledge with new cultural insights. Unlike traditional reading methods, DSR promotes interactive and reflective learning experiences, where students not only read but also discuss and analyze cultural elements embedded in the texts. This interactive nature aligns with Vygotsky's sociocultural theory (Newman, 2018), which emphasizes the role of social interaction in cognitive development. Through collaborative reading activities, students may have developed a deeper understanding of cultural nuances, contributing to enhanced cross-cultural competence. From a pedagogical standpoint, these findings highlight the necessity of integrating interactive reading experiences in EFL curricula to enhance students' intercultural awareness. Traditional reading instruction often focuses primarily on linguistic comprehension, neglecting the cultural dimensions embedded in texts. However, as the present study demonstrates, incorporating digital tools and shared reading experiences creates an interactive learning environment that promotes language development and cultural literacy.

The second research objective examines the impact of Digital Shared Reading (DSR) on EFL students' reading comprehension. To proceed with the hypothesis testing, ensuring that the data met the assumptions for parametric analysis was necessary. Therefore, a normality test was performed prior to conducting further statistical procedures. The One-Sample Kolmogorov-Smirnov Test was chosen to assess the normality of the distribution of the residuals. This test helps determine whether the data significantly deviates from a normal distribution. The outcome of the test showed that the residuals were normally distributed. The test statistic was 0.091, with a significance value of 0.200 (p > 0.05), indicating that the data did not violate the normality assumption. The full result of the normality test can be found in Table 4.

Table 4. Reading Comprehension Data Normality

N	Test Statistic	Sig. (2-tailed)
30	0.091	0.200

The One-Sample Kolmogorov-Smirnov (K-S) test results indicate that the data follow a normal distribution. The test statistic is 0.091, and the Asymp. Sig. (2-tailed) value is 0.200, which is greater than the significance threshold of 0.05. This means the null hypothesis, which assumes that the data are normally distributed, cannot be rejected. Additionally, the absolute, positive, and negative extreme differences are all relatively small, further supporting the assumption of normality. Since the normality assumption is met, parametric statistical tests, such as the paired samples t-test, can be appropriately used for hypothesis testing in this study.

Table 5. Reading Comprehension Pre-test and Post-test Scores

		Mean	N
Pair 1	Pre-test	72.13	30
	Post-test	81.23	30

Table 5 presents the mean scores of the pre-test and post-test for reading comprehension. The results show that the mean score of the pre-test was 72.13, while the mean score of the post-test increased to 81.23, which indicates an improvement in students' reading comprehension after the intervention. The standard deviation values for the pre-test (9.317) and post-test (10.224) suggest some variability in students' scores, but the increase in the mean score demonstrates overall progress. Additionally, the standard error of the mean for the pre-test (1.701) and post-test (1.867) shows that the sample's mean is a reliable estimate of the population mean. These results suggest that the digital shared reading (DSR) intervention positively impacted students' reading comprehension.

Table 6. The Difference between Cross-cultural Competence

Mean Difference	Sd	t	Df	Sig. (2-tailed)
-9.10	4.73	-10.54	29	0.000

Table 6 presents the paired samples t-test results, comparing students' reading comprehension scores before and after the digital shared reading (DSR) intervention. The mean difference between the pre-test and post-test scores is -9.10, indicating an increase in students' reading comprehension after the intervention. The standard deviation is 4.73, with a standard error mean of 0.86, suggesting a relatively small variability in the differences. The t-value (-10.54) is highly significant, with a p-value of 0.000 (p < 0.001), meaning there is a statistically significant improvement in students' reading comprehension scores. Since the p-value is below 0.05, the null hypothesis (which assumes no significant improvement) is rejected, and the alternative hypothesis is accepted. This confirms that the digital shared reading (DSR) intervention significantly positively affects students' reading comprehension. The positive effect of Digital Shared Reading (DSR) on students' reading comprehension can be attributed to how DSR enhances engagement and understanding through visual and interactive elements. Visual aids reinforce comprehension by making abstract or complex information more concrete and relatable. Students exposed to textual and visual content simultaneously create dual mental representations of the information. This dual coding strengthens memory retention and enhances understanding by allowing the brain to encode the same concept through multiple sensory pathways (Bi, 2021). In the context of DSR, visual aids such as images, videos, and interactive elements complement the textual information, helping students build stronger mental associations and facilitating deeper comprehension of the material. To minimize misconceptions and facilitate the process of meaning building, accompanying visuals might help students grasp and contextualize complex terminology and provide context. The findings align with Altamimi et al. (2023), who reported that shared reading significantly improved comprehension and engagement among kindergarten

students. However, while their study focused on early childhood education, the present study extends these findings to junior high school students, demonstrating that the benefits of shared reading persist beyond the early years. Dewi (2012) also highlighted that shared reading was particularly effective for students with low reading anxiety. This suggests that emotional factors may also play a role in the effectiveness of DSR, indicating that future research should explore how affective variables interact with digital reading interventions. Compared to traditional shared reading, digital reading environments have yielded mixed results. For instance, Ortlieb et al. (2012) found that hybrid and digital-based instruction significantly enhanced elementary students' comprehension, while Strouse et al. (2022) noted that digital media exposure improved comprehension but did not necessarily increase engagement. The present study suggests that digital shared reading successfully combines the benefits of both approaches by integrating interactive elements that support comprehension while maintaining engagement through shared discussion. This contrast highlights the importance of learning design, which simply digitizing reading materials may not be sufficient unless paired with interactive, guided engagement. Merely presenting text in a digital format does not automatically enhance comprehension or motivation; rather, the intentional integration of interactive elements and collaborative discussion makes digital shared reading effective. Unlike purely digital reading that often lacks interpersonal interaction, digital shared reading fosters a collaborative learning environment where students actively participate in discussions, reflect on the content, and share interpretations. This interactive aspect keeps students engaged and deepens comprehension by allowing them to verbalize their thoughts and clarify misunderstandings through peer and teacher feedback.

The practical implications of these findings suggest that educators should integrate digital shared reading into EFL instruction to promote deeper textual understanding. However, careful consideration should be given to selecting digital tools and the level of teacher mediation to maximize the benefits. Moreover, as previous studies have indicated that factors such as reading anxiety and self-regulation influence comprehension outcomes, future research should examine how these elements interact with DSR in different learning contexts. Lastly, since digital literacy is becoming an essential component of education, implementing well-structured DSR activities can support students in developing both linguistic and digital competencies, better preparing them for academic and real-world literacy demands. Then, to examine the relationship between students' cross-cultural competence and their reading comprehension in an EFL context, a correlation analysis was conducted to determine the strength and direction of the association between these two variables. The result is in Table 7.

Table 7. Correlations between Cross-cultural Competence and Reading Comprehension

	N	**Pearson Correlation**	**Sig. (2-tailed)**
Reading	30	1	0.500
CQ	30	0.128	0.500

Table 7 presents the correlation analysis between students' cross-cultural competence (CQ) and reading comprehension scores. The Pearson correlation coefficient is 0.128, indicating a weak positive relationship between the two variables. However, the p-value (Sig. 2-tailed) is 0.500, greater than the significance threshold of 0.05, suggesting that the correlation is not statistically significant. This means that, based on the current sample, no substantial evidence exists to conclude that higher cross-cultural competence directly influences reading comprehension performance meaningfully. This study's findings indicate no significant correlation between students' cross-cultural competence and their reading comprehension in an EFL context. This study's lack of a direct correlation is that cross-cultural competence and reading comprehension may develop independently when not explicitly linked in instruction. While cultural competence equips students to interpret and appreciate diverse perspectives, reading comprehension requires decoding, processing, and analyzing textual information. If teaching strategies do not explicitly bridge these skills, students may improve one without necessarily enhancing the other. Furthermore, cross-cultural competence still plays a crucial role in reading comprehension, particularly when texts contain cultural nuances, idioms, or references requiring background knowledge. Even if students can comprehend general ideas without deep cultural insight, their understanding may remain superficial or lack critical depth. Therefore, cross-cultural competence indirectly contributes to richer and more nuanced interpretations of texts, even if it does not directly predict reading comprehension performance.

This result contrasts with previous research, such as Hellerstein-Yehezkel (2017), who argued that students with higher intercultural competence engage more effectively in cross-cultural communication and textual interpretation. The present study's absence of a strong correlation suggests that while cultural awareness may support reading comprehension, it is not necessarily a determining factor. Other aspects, such as linguistic proficiency, background knowledge, and reading strategies, may dominate comprehension outcomes. Moreover, this study diverges from Yurtsever and Özel (2021), who highlighted that lesson components, interaction, and

personal connection significantly enhance cultural understanding and, by extension, reading engagement. One possible explanation for this discrepancy is that while students may develop cross-cultural competence, it does not automatically translate into improved reading comprehension unless it is explicitly integrated into reading instruction. Another key consideration is the study by Sliouat and Benfliali (2025), highlighting EFL teachers' challenges in integrating cross-cultural competence into reading lessons. The current findings reinforce these challenges, as students with higher cross-cultural competence did not necessarily outperform others in reading comprehension. This suggests that explicit instruction in cross-cultural analysis within reading tasks may be necessary to maximize the benefits of cultural competence on reading skills.

While this study does not confirm a direct relationship between cross-cultural competence and reading comprehension, it underscores the need for explicit learning strategies that connect cultural learning with reading tasks. The study contributes to the scientific field by challenging established assumptions about the role of cultural competence in reading comprehension and advocating for pedagogical practices that deliberately integrate cultural analysis within reading instruction. The novelty of this study lies in its critical examination of the assumption that cross-cultural competence directly impacts reading comprehension, challenging widely held views in EFL pedagogy. Unlike previous studies focusing on teacher-driven cultural discussions, this study assessed students' existing cross-cultural competence rather than evaluating an learning intervention to enhance it. This distinctive approach highlights the complexity of the relationship between cultural awareness and reading skills, suggesting that fostering cross-cultural competence alone may not guarantee improved comprehension outcomes. Therefore, EFL teachers could incorporate cross-cultural discussions, critical reading strategies, and contextual analysis to help students better integrate cultural awareness into their reading processes. Additionally, curriculum designers should ensure that reading materials reflect diverse cultural perspectives and provide structured activities that guide students in analyzing texts through a cross-cultural lens.

CONCLUSION

This study investigated the impact of Digital Shared Reading (DSR) on students' cross-cultural competence and reading comprehension in an EFL context. The findings revealed three key insights. First, the paired samples t-test indicated a significant improvement in students' cross-cultural competence after the DSR intervention, suggesting that integrating digital resources and shared reading experiences enhances students' ability to engage with cultural nuances, fostering deeper intercultural understanding. Second, the results demonstrated a significant positive effect of DSR on students' reading comprehension, reinforcing the role of interactive and multimodal reading activities in promoting text engagement and comprehension skills. Third, the correlation analysis showed no statistically significant relationship between cross-cultural competence and reading comprehension, indicating that while both skills are enhanced through DSR, they may develop independently rather than directly. This finding suggests that even though cross-cultural competence is important for reading comprehension, as it aids in understanding inferences and word meanings in texts, it does not directly influence someone's reading comprehension and must be explicitly taught and integrated into learning practices. These findings have important pedagogical implications, emphasizing the potential of DSR as an innovative approach to fostering linguistic proficiency and cultural literacy in EFL contexts. The positive effects of DSR highlight the need for EFL educators to integrate digital and interactive reading strategies into their teaching practices. Teachers can create dynamic learning environments supporting language and cultural development by incorporating multimodal texts and fostering cross-cultural discussions. Given the lack of a direct correlation between cross-cultural competence and reading comprehension, future learning approaches should treat these as complementary but distinct areas of development, ensuring that both skills are systematically nurtured within EFL curricula. For future research, further studies could explore the long-term impact of DSR on students' critical thinking skills and intercultural sensitivity. Additionally, investigating how different digital reading platforms or learning designs influence learning outcomes could provide deeper insights into optimizing technology-enhanced reading interventions. Given the mixed findings on digital reading engagement, future research should examine individual student characteristics such as motivation, cognitive styles, or proficiency levels to determine how personalized digital reading experiences can enhance comprehension and cultural competence.

REFERENCES

Albert, I., Trommsdorff, G., & Albert, I. (2009). Intergenerational Transmission of Values in Different Cultural Contexts: A Study in Germany and Indonesia. *Proceedings from the 18th International Congress of the International Association for Cross-Cultural Psychology*, 1–11.

Altamimi, M. O., Ogdol, R., & The, R. (2023). The Effects of Shared Reading Approach on Improving Students' Comprehension. *International Journal of Research in Education and Science*, 9(2), 308–328.

Alyeksyeyeva, I., Chaiuku, T., Kovalchuk, I., & Galitska, E. (2022). Making Sense of Texts: EFL Students' Intercultural Competence and Interpretation Depth. *Arab World English Journal*, *13*(1), 104–116.

An Le, D. T. B., & Hockey, J. (2022). Critical Thinking in the Higher Education Classroom: Knowledge, Power, Control and Identities Introduction. *British Journal of Sociology of Education*, *43*(1), 140–158.

Azzahra, N. R., & Nurkamto, J. (2024). How do EFL Teachers Navigate Problem-Based Learning in Indonesian Classrooms ? *Voices of English Language Education Society*, *8*(3), 727–738.

Bensalah, H., & Gueroudj, N. (2020). The Effect of Cultural Schemata on EFL Learners' Reading Comprehension Ability. *Arab World English Journal*, *11*(2), 383–394.

Bi, Y. (2021). Dual Coding of Knowledge in the Human Brain. *Trends in Cognitive Sciences*, *25*(10), 883–895.

Cooper, R., & Lilyea, B. (2022). I'm Interested in Autoethnography, but How Do I Do it? *The Qualitative Report*, *27*(1), 197–208.

Creswell, J. W. (2014). *Research design: Qualitative, Quantitative, and Mixed-method Approaches*. Sage.

Creswell, J. W. (2015). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. Pearson.

Dewi, D. S. (2012). *The Influence of Shared Reading Method and Reading Anxiety upon Reading Comprehension* [Undergraduate Thesis, Universitas Sebelas Maret].

Dewi, D. S., Sartika, D., Budiyanto, D., Amalia, K., Lestari, S., Erydani, V. A. C., & Saptiany, S. G. (2025). *Pengantar Statistik untuk Penelitian Pendidikan*. Harmoni Anak Negeri.

Dewi, D. S., Wilany, E., Sidabutar, I. S., & Ria, T. N. (2022). Investigating the Relationship between Cultural Intelligence and Student's Listening Comprehension. *Journal of English Education Program*, *3*(1), 46–58.

Diep, L. T. N., Zainal, A. G., Hassan, I., Sunarti, Al-Sudani, A. Q. A. S., & Assefa, Y. (2022). Cultural Familiarity, Foreign Language Speaking Skill, and Foreign Language Anxiety: The Case of Indonesian EFL Learners. *Education Research International*, *2022*(3910411), 1–9.

Goshkheteliani, I. (2013). Idioms in Cross-cultural Communication. In J. Szerszunowicz, B. Nowowiejski, K. Yagi, & T. Kanzaki (Eds.), *Research on Phraseology Across Continents*, *2*, 19–36.

Gràcia, M., Casanovas, J., Riba, C., Sancho, M. R., Jarque, M. J., Casanovas, J., & Vega, F. (2022). Developing a Digital Application (EVALOE-DSS) for the Professional Development of Teachers Aiming to Improve Their Students' Linguistic Competence. *Computer Assisted Language Learning*, *35*(3), 492–517.

Gupta, M., & Sukamto, K. E. (2020). Cultural Communicative Styles: The Case of India and Indonesia. *International Journal of Society, Culture and Language*, *8*(2), 105–120.

Gustafsson, A. W., Johnsson, P., Järvholm, K., Bernhardsson, K., Forslid, T., & Ohlsson, A. (2023). An Intricate Dance of Intersubjectivity: The Social and Cognitive Benefits of a Digital Shared Reading Group. *Scientific Study of Literature*, *2*(June), 103–132.

Hajiyeva, B. (2024). Challenges in Understanding Idiomatic Expressions. *Acta Globalis Humanitatis et Linguarum*, *1*(2), 67–73.

Hasnah, Y., Ginting, P., Saragih, M., Kharisma, A. J., & Sari, P. L. P. (2024). A Probe into Local Cultural Values in Locally Produced EFL Textbooks in Indonesia. *Humanities, Arts and Social Sciences Studies*, *24*(3), 648–661.

Hayati, H. A., & Puspitaloka, N. (2022). An Analysis of Students' Reading Comprehension Difficulties during Covid-19 Pandemic with Online Classes in Junior High School. *JET (Journal of English Teaching)*, *8*(2), 293–300.

Hazaymeh, W. A. (2021). Students' Perceptions of Online Distance Learning for Enhancing English Language Learning During Covid-19 Pandemic. *International Journal of Instruction*, *14*(3), 501–518.

Hellerstein-Yehezkel, D. (2017). The Path to Reading Comprehension through Intercultural Competence in the Multicultural EFL Classroom. *Language and Intercultural Communication*, *17*(3), 323–343.

Huang, L. (2023). Developing Intercultural Competence through a Cultural Metacognition-featured Instructional Design in English as a Foreign Language Classrooms. *Frontiers in Psychology*, *14*(February), 1–11.

Kusumarasdyati, K. (2023). Reading Comprehension in EFL: An Overview. *IJCAH*, 782–791.

Kwak, S. G., & Park, S. H. (2019). Normality Test in Clinical Research. *Journal of Rheumatic Diseases*, *26*(1),

Liu, J., Gill, E., & Li, S. (2021). Revisiting Cultural Competence. *Clinical Teacher*, *18*(2), 191–197.

Mahmoudi, S. (2017). Investigating the Effect of Cultural Schemata Activation on EFL Learners' Listening Comprehension. *English Language, Literature & Culture*, *2*(6), 99.

McNab, K. (2016). *Digital Texts for Shared Reading: Effects on Early Literacy* [University of Tasmania].

Munandar, M. I., & Newton, J. (2021). Indonesian EFL Teachers' Pedagogic Beliefs and Classroom Practices regarding Culture and Interculturality. *Language and Intercultural Communication*, *21*(2), 158–173.

Namaziandost, E., Tavakoli, M., & Izadpanah, S. (2021). Investigating EFL Learners' Knowledge of Vocabulary and Idiomatic Expressions in a Culture-Based Instructional Environment Environment. *Studies in English Language and Education*, *8*(3), 1080–1093.

Newman, S. (2018). Vygotsky, Wittgenstein, and Sociocultural Theory. *Journal for the Theory of Social Behaviour*, *48*(3), 350–368.

Nicholas, M., & Paatsch, L. (2024). The Shared Reading of Digital Storybooks with Young Children: Parents' Perspectives. *Research Papers in Education*, *39*(4), 650–667.

Ortlieb, E., Sargent, S., & Moreland, M. (2012). Evaluating the Efficacy of Using a Digital Reading Environment to Improve Reading Comprehension within a Reading Clinic. *Reading Psychology*, *35*(5), 397–421.

Perry, N. E., Vandekamp, K. O., Mercer, L. K., Nordby, C. J., Perry, N. E., Vandekamp, K. O., Mercer, L. K., Carla, J., Perry, N. E., Vandekamp, K. O., Mercer, L. K., & Nordby, C. J. (2018). Investigating Teacher-Student Interactions that Foster Self-Regulated Learning. *Educational Psychologist*, *37*(1), 5–15.

Puad, L. M. A. Z., & Ashton, K. (2023). A Critical Analysis of Indonesia's 2013 National Curriculum: Tensions between Global and Local Concerns. *Curriculum Journal*, *34*(3), 521–535.

Sarsenbaeva, Z. (2021). The Development of Intercultural Competence as an Essential Element in Learning EFL. *National Association of Scientists*, *1*(37(64)), 21–24.

Shadiev, R., Wang, X., Wu, T., & Huang, Y. (2021). Review of Research on Technology-Supported Cross-Cultural Learning. *Sustainability*, *13*(3), 1–23.

Shi, F. (2023). An Analysis of Reading Materials in New Senior English for China Based on Cultivation of Cultural Awareness. *Open Journal of Applied Sciences*, *13*(01), 51–59.

Sholikah, L., & Pertiwi, F. N. (2021). Analysis of Science Literacy Ability of Junior High School Students Based on Programme for International Student Assessement (Pisa). *INSECTA: Integrative Science Education and Teaching Activity Journal*, *2*(1), 95–104.

Sliouat, R., & Benfliali, I. (2025). Prioritizing Cross-cultural Competence in the 21 st Century EFL Classroom: High School Teachers Perspectives and Pedagogical Practices. *International Journal of Linguistics and Translation Studies*, *6*(1), 60–76.

Southworth, J. (2022). Bridging Critical Thinking and Transformative Learning: The Role of Perspective-taking. *Theory and Research in Education*, *20*(1), 44–63.

Strouse, G. A., Chesnut, S. R., Newland, L. A., Mourlam, D. J., Hertel, D., & Nutting, B. (2022). Preschoolers' Electrodermal Activity and Story Comprehension during Print and Digital Shared Reading. *Computers & Education*, *183*, 104506.

Ting, S.-H. (2023). Cross-cultural Competence in the Volatile, Uncertain, Complex and Ambiguous World. *International Journal of Language Education and Applied Linguistics*, *13*(1), 1–3.

Ulkhaq, M. M. (2024). Factors Influencing Indonesian Students ' Performance on PISA 2018. *Proceeding of The International Conference of Inovation, Science, Technology, Education, Children, and Health*, *4*(1), 74–87.

Wagiman, S. (1997). *The Modernization of the Pesantren's Educational System to Meet the Needs of Indonesian Communities*. McGill University.

Yulian, R. (2021). The Flipped Classroom: Improving Critical Thinking for Critical Reading of EFL Learners in Higher Education. *Studies in English Language and Education*, *8*(2), 508–522.

Yurtsever, A., & Özel, D. (2021). The Role of Cultural Awareness in the EFL Classroom. *Turkish Online Journal of Qualitative Inquiry*, *12*(1), 102–132.

10   link.springer.com
Internet Source   <1 %

11   www.ijonte.org
Internet Source   <1 %

12   clok.uclan.ac.uk
Internet Source   <1 %

13   biblio.ugent.be
Internet Source   <1 %

14   essayassists.com
Internet Source   <1 %

15   Submitted to Jackson State University
Student Paper   <1 %

16   masteringspss.com
Internet Source   <1 %

17   openaccess.city.ac.uk
Internet Source   <1 %

18   studenttheses.uu.nl
Internet Source   <1 %

19   Submitted to Laurea University of Applied
Sciences
Student Paper   <1 %

20   www.peertechz.com
Internet Source   <1 %

21   William Peter Grabe, Fredricka L. Stoller.
"Teaching and Researching: Reading",
Routledge, 2019
Publication   <1 %

22   Zhen Li. "Diversity and Inclusiveness in
Chinese as a Second Language Education",
Routledge, 2025
Publication   <1 %

23   Submitted to hogeschoolrotterdam
Student Paper   <1 %

24 www.journalppw.com
Internet Source
<1%

25 Submitted to American University of Science
Student Paper
<1%

26 Wulan Patria Saroinsong, Muhamad Nurul Ashar, Irena Y. Maureen, Lina Purwaning Hartanti et al. "Reimagining Innovation in Education and Social Sciences", Routledge, 2023
Publication
<1%

27 Submitted to Higher Education Commission Pakistan
Student Paper
<1%

28 Qing Guo, Yuqing Chen, Cuilan Qiao, Yunwei Yu. "Using the WorldWide Telescope to Develop Science Data Literacy in STEM Undergraduates: A Conceptual Framework and Course Design", Journal of Science Education and Technology, 2024
Publication
<1%

29 harbor.klnpa.org
Internet Source
<1%

30 olj.onlinelearningconsortium.org
Internet Source
<1%

31 pubmed.ncbi.nlm.nih.gov
Internet Source
<1%

32 tesl.shirazu.ac.ir
Internet Source
<1%

33 Suzanne S. Choo, Woon Chia Liu, Bee Leng Chua. "Developing Future-Ready Learners for a Global Age - Pedagogical Innovations in Singapore", Routledge, 2024
Publication
<1%

34 latinjournal.org
Internet Source

50 www.ojcmt.net
Internet Source
<1 %

51 Devora Hellerstein-Yehezkel. "The path to reading comprehension through intercultural competence in the multicultural EFL classroom", Language and Intercultural Communication, 2016
Publication
<1 %

52 Jean L. Turner. "Using Statistics in Small-Scale Language Education Research - Focus on Non-parametric Data", Routledge, 2014
Publication
<1 %

53 Jean-Luc Bloechle, Julien Audiffren, Quentin Sauthier, Quentin Mertenat, Yohann Waeber, David Aebischer, Jean-Pierre Bresciani. "Perceptual Training in Ice Hockey: Bridging the Eyes-Puck Gap using Virtual Reality", Springer Science and Business Media LLC, 2024
Publication
<1 %

54 Nigel C. Smeeton, Neil H. Spencer, Peter Sprent. "Applied Nonparametric Statistical Methods", CRC Press, 2025
Publication
<1 %

55 core.ac.uk
Internet Source
<1 %

56 e-journal.undikma.ac.id
Internet Source
<1 %

57 edurev.in
Internet Source
<1 %

58 ejournal.insuriponorogo.ac.id
Internet Source
<1 %

59 eric.ed.gov
Internet Source
<1 %

60   journal.universitaspahlawan.ac.id
     Internet Source   <1%

61   library.apsce.net
     Internet Source   <1%

62   oapub.org
     Internet Source   <1%

63   portfolio.vvsu.ru
     Internet Source   <1%

64   repositorio.ucv.edu.pe
     Internet Source   <1%

65   repository.uinmataram.ac.id
     Internet Source   <1%

66   researchrepository.universityofgalway.ie
     Internet Source   <1%

67   www.icaseonline.net
     Internet Source   <1%

68   www.uniatlantico.edu.co
     Internet Source   <1%

69   Soon Ang, Linn Van Dyne, Christine Koh, K.
     Yee Ng, Klaus J. Templer, Cheryl Tay, N. Anand
     Chandrasekar. "Cultural Intelligence: Its
     Measurement and Effects on Cultural
     Judgment and Decision Making, Cultural
     Adaptation and Task Performance",
     Management and Organization Review, 2015   <1%
     Publication

70   Wai Mar Phyo. "Non-native English-speaking
     Doctoral Students' English Academic Writing
     Experiences in Hungary", University of
     Szeged, 2025   <1%
     Publication

Exclude quotes	On	Exclude matches	Off
Exclude bibliography	On		