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Original Research

Effects of Two Reading-Based Procedures on EFL Learners' Level of Intercultural Communicative Competence

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Abstract

Intercultural communicative competence (ICC), the capacity to understand cultures and communicate effectively, is vital in language education. This study compared the effects of two reading-based approaches on EFL learners' ICC development: short stories versus entries from Oxford Guide to British and American Culture. At a private language school in Hamedan, Iran, two homogeneous advanced-level classes (N=15 each) were selected through a proficiency test and pretested for baseline ICC using the Intercultural Language Learning Profiler (ILL-P) and Intercultural Development Inventory (IDI). Over the course, one class read short stories, while the other studied Oxford Guide articles, with instructional variables controlled. For the post-intervention assessment, both groups completed the Intercultural Readiness Check (IRC), Intercultural Adjustment Potential Scale (ICAPS), and the final exam. The results indicated that the Oxford Guide group achieved significantly higher ICC gains. Additionally, learners with higher achievement test scores in both classes exhibited greater intercultural improvement, suggesting a correlation between achievement test scores and ICC development. The findings highlight the efficacy of culture-specific textual resources in fostering ICC and underscore the role of language ability and achievement in intercultural learning. Further research with larger cohorts and diverse instructional methods is recommended to generalize these outcomes.

Keywords: EFL Learners; Intercultural Communicative Competence; Oxford Guide to British and American Culture; Reading; Short Stories.

1. Introduction

In an increasingly globalized world, intercultural communicative competence (ICC)—the dynamic capacity to navigate and mediate diverse cultural contexts through effective communication—has emerged as a pivotal element in language education, particularly for learners of English as a Foreign Language (EFL). Rooted in Byram's (1997) model, which integrates *savoirs* (knowledge), *savoir-faire* (skills), and *savoir-être* (attitudes), ICC transcends linguistic proficiency to encompass cultural empathy, adaptability, and critical reflection (Deardorff, 2006). This competence is indispensable for EFL learners, who often encounter cultural disconnects in academic, professional, and social spheres (Griffith et al., 2016). The significance of ICC lies in its role as a bridge between language mastery and the ability to engage meaningfully in intercultural interactions, challenging the misconception that linguistic instruction alone suffices for cultural education (Barski & Wilkerson-Barker, 2019). As educators strive to equip students with these skills, pedagogical methodologies increasingly emphasize the integration of culturally rich texts and narratives into curricula (Kuffuor et al., 2024; Tamer et al., 2023).

1.1. Theoretical Foundations of ICC

Theoretical frameworks such as Bennett's (1993) Developmental Model of Intercultural Sensitivity (DMIS) posit that ICC development progresses from ethnocentric denial to ethnorelative adaptation, a journey facilitated by targeted educational interventions. Byram's (1997) model complements this by emphasizing the interplay of knowledge, skills, and attitudes, where language serves as a conduit for cultural understanding. Dimitrova-Gyuzeleva (2020) further underscores the interdependence of language and culture, arguing that effective communication in multicultural settings demands robust intercultural awareness. Oberste-Berghaus (2024) expands this view, identifying multifaceted dimensions of ICC, including cultural knowledge, communication skills, empathy, and adaptability, which must be systematically integrated into pedagogy.

1.2. Research on ICC Development: Transformative Learning and Pedagogical Debates

Research underscores the transformative nature of ICC development, which reshapes learners' perceptions and interactions. Sakharova et al. (2017) demonstrate that structured educational experiences, such as short-term programs, significantly enhance intercultural sensitivity—a core component of ICC. This aligns with Wang's (2016) assertion that renewing educational philosophies and diversifying teaching methods are critical for cultivating intercultural communication skills. Authentic materials, as argued by Bigun and Yatskiv (2022), bridge the gap between language learning and cultural understanding, fostering both linguistic and intercultural growth. However, debates persist regarding optimal pedagogical strategies: narrative-driven approaches, such as short stories, are praised for fostering empathy and personal identification with cultural themes (Baytar & Timuçin, 2021; Ghosn, 2002; Lazar, 1993; Rodríguez, 2017), while structured cultural content, like the Oxford Guide to British and American Culture, systematizes explicit cultural knowledge (Fang, 2022; Tomlinson, 2013).

1.3. Study Context: Addressing ICC in Iran's Culturally Insular Environment

This study addresses these debates by comparing the efficacy of two reading-based interventions—short stories versus the Oxford Guide—in enhancing ICC among advanced EFL learners in Iran, a context where cultural exposure often relies on classroom materials. Prior research in similar settings highlights the need for pedagogies balancing linguistic and intercultural objectives (Tran & Duong, 2018; Xu, 2024). The Oxford Guide, with its structured cultural explications, offers a counterpoint to the implicit cultural cues of short stories, potentially addressing gaps in learners' explicit knowledge (Johnson & Ledbetter, 2022). Meanwhile, validated assessment tools like the Intercultural Development Inventory (IDI) and Intercultural Readiness Check (IRC) quantify ICC progression, yet their application in comparing pedagogical methods remains underexplored (Hagqvist et al., 2020; Tamer et al., 2023).

The methodologies employed in language instruction are pivotal in shaping learners' ICC. Kovacevic et al. (2021) argue that successful teaching must integrate intercultural competence with language skills, as the two are inextricably linked in globalized contexts. This integration is exemplified in intercultural language teaching models that prioritize cultural elements alongside proficiency (Tran & Duong, 2018). However, teacher cognition plays a critical role; Gong et al. (2022) emphasize that educators must be adequately prepared to facilitate ICC development, underscoring the importance of inclusive, culturally responsive environments (Aulia, 2022; Tvalchrelidze, 2016).

In this context, this quasi-experimental study, conducted with 30 advanced Iranian EFL learners, employs pre-post assessments (IDI, IRC, ICAPS) to quantify ICC gains. By controlling instructional variables and leveraging homogeneous groups, it isolates the impact of text type while exploring proficiency-ICC dynamics. Preliminary findings reveal that structured cultural content fosters superior ICC gains, particularly among higher-proficiency learners (Nechyporuk, 2021; Zhang, 2017), challenging assumptions about narrative primacy.

The implications extend beyond pedagogy: As global workplaces demand intercultural adeptness (Xu, 2024), curricula prioritizing explicit cultural knowledge may better equip learners for real-world challenges. The study also highlights challenges, such as limited exposure to authentic contexts and cultural biases (Oberste-Berghaus, 2024), which educators must address through technology-enhanced resources (Li, 2024) and hybrid approaches.

The Iranian educational landscape presents unique challenges for fostering intercultural communicative competence (ICC), particularly given the socio-political constraints on cultural exchange and limited access to globalized media (Tajeddin & Teimournezhad, 2015). Sanctions and internet restrictions have curtailed direct exposure to

Anglophone cultures, amplifying reliance on classroom materials as primary conduits for intercultural learning (Khodadady & Khajavy, 2013). In this context, the choice of reading materials becomes a critical determinant of ICC development, as learners often lack opportunities for authentic intercultural interactions (Alemi & Tajeddin, 2020). This isolation underscores the urgency of identifying pedagogical resources that compensate for systemic barriers, positioning structured cultural texts (e.g., the Oxford Guide) and narrative-driven stories as vital surrogates for real-world cultural engagement.

1.4. Digital and Cognitive Considerations in ICC Pedagogy

While digital tools like virtual exchange programs have revolutionized ICC development globally (O'Dowd, 2021), their applicability in Iran remains constrained by infrastructural and geopolitical limitations. Recent studies highlight how sanctioned regions leverage localized technologies—such as intranet-based platforms and curated digital libraries—to simulate intercultural experiences (Zarei & Ramezani, 2022). For instance, the Iranian National Digital Library integrates culturally annotated texts to foster critical cultural reflection, mirroring the Oxford Guide's structured approach (Davari & Aghagolzadeh, 2018). These adaptations suggest that text-based interventions, whether narrative or expository, can serve as scalable alternatives to technology-dependent methods in resource-limited settings.

The cognitive architecture underpinning ICC development remains underexplored in EFL literature. Cognitive Load Theory (CLT) posits that learning efficiency depends on aligning instructional design with working memory constraints (Sweller, 1988). Structured cultural texts like the Oxford Guide may reduce extraneous cognitive load by explicitly organizing cultural schemas (e.g., "British politeness norms"), enabling learners to allocate mental resources to intercultural analysis rather than implicit cultural inference (Kalyuga & Singh, 2016). Conversely, short stories, while rich in contextualized cultural cues, risk overwhelming learners with narrative complexity, potentially hindering schema formation (Leahy & Sweller, 2016). This cognitive dimension offers a novel lens for interpreting the study's findings, particularly the superior ICC gains observed in the Oxford Guide group.

1.5. Critical Pedagogy and Task-Based Frameworks for ICC

Critical intercultural pedagogy emphasizes the role of power dynamics and self-reflexivity in ICC development (Phipps & Guilherme, 2004). Narrative texts like short stories can facilitate critical reflection by depicting cultural conflicts and marginalized perspectives (Kramsch, 1993). However, without guided deconstruction, learners may perpetuate stereotypes rather than challenge them (Baker, 2012). The Oxford Guide's factual approach, while less emotionally engaging, provides a neutral foundation for interrogating cultural practices—a prerequisite for the "critical cultural awareness" central to Byram's (1997) model. This duality suggests hybrid pedagogies that combine explicit cultural knowledge with narrative-driven critical analysis may optimize ICC outcomes (Porto, 2019).

Task-Based Language Teaching (TBLT) frameworks, which prioritize authentic, goal-oriented activities (Ellis, 2003), can be reconceptualized for ICC development. Structured cultural texts lend themselves to input-based tasks (e.g., comparing British and American holiday rituals), while short stories enable output-based tasks (e.g., role-playing intercultural dialogues) (Newton & Nation, 2020). The study's findings align with Newton et al.'s (2010) assertion that input-focused tasks enhance declarative cultural knowledge, whereas output tasks foster procedural skills. However, task sequencing—explicit knowledge before applied practice—may explain the Oxford Guide group's superior performance, emphasizing the need for scaffolded ICC curricula.

1.6. Global Citizenship Education (GCE) and Curricular Implications

The study's implications extend to Global Citizenship Education (GCE), which positions ICC as a cornerstone of 21st-century education (UNESCO, 2015). In Iran's state-mandated EFL curricula, which prioritize linguistic accuracy over cultural fluency (Borjian, 2013), the Oxford Guide's systematic approach offers a politically neutral pathway to integrate GCE principles. By framing cultural knowledge as complementary to language proficiency, educators can navigate ideological sensitivities while advancing UNESCO's (2019) vision of education for intercultural dialogue. This strategic alignment underscores the pragmatic value of culture-specific texts in constrained educational ecosystems.

Integrating culturally rich reading materials into language instruction represents a promising avenue for enhancing ICC, particularly in contexts like Iran where systemic barriers limit intercultural exposure. The insights from this research refine theoretical models and offer actionable strategies for EFL educators in culturally insular contexts.

Future studies should explore hybrid pedagogies and technological integrations (Li, 2024), ensuring ICC education evolves alongside societal needs. By fostering environments that prioritize both linguistic and intercultural growth, language programs can empower learners to thrive in a multicultural world (Buntain, 2023; Jaiswal et al., 2024; Joshi et al., 2022).

Against this backdrop, the study poses four research questions:

1. To what extent does the short stories intervention improve EFL learners' intercultural communicative competence?
2. To what extent does the Oxford Guide articles intervention improve EFL learners' intercultural communicative competence?
3. Which reading-based intervention—short stories or Oxford Guide articles—yields greater improvements in EFL learners' ICC?
4. How do learners' achievement test scores correlate with ICC development across these interventions?

2. Methodology

2.1. Research Design

This study employed a quasi-experimental comparative design to evaluate the differential effects of two reading-based interventions—short stories versus the Oxford Guide to British and American Culture—on the intercultural communicative competence (ICC) of advanced EFL learners. The quasi-experimental approach was selected due to the logistical constraints of working with intact classroom groups at a private language institute in Hamedan, Iran, where random assignment was impractical (Shadish et al., 2002). To mitigate selection bias, rigorous pre-testing ensured homogeneity between groups, aligning with best practices for quasi-experimental designs in applied linguistics (Phakiti, 2014). The independent variable was the type of reading material (narrative short stories vs. expository cultural texts), while the dependent variables included ICC metrics (Intercultural Readiness Check [IRC], Intercultural Adjustment Potential Scale [ICAPS]) and language achievement scores. Control variables encompassed instructional hours, teacher consistency, classroom environment, and materials (Oxford 3000™ vocabulary alignment), ensuring that observed effects could be attributed to the intervention type rather than extraneous factors. As learners with proficiency levels lower than advanced level are less likely to fully comprehend, and benefit from passages in the Oxford Guide to British and American Culture, and the short stories, only advanced learners were selected for this study.

2.2. Participants

Participants comprised 30 advanced EFL learners (CEFR B2 level) enrolled in a private language school in Hamedan, Iran, divided into two intact and identically run classes of 15 learners each. The sample was purposively selected to reflect the demographic and linguistic profile of Iranian EFL learners, with an age range of 18–25 years ($M = 21.4$, $SD = 2.1$) and balanced gender distribution (9 males, 6 females per group). Eligibility criteria included: (1) enrollment in an upper-intermediate English course, (2) no prior participation in ICC-focused curricula, and (3) absence of diagnosed cognitive or linguistic impairments. Homogeneity was ensured through a two-stage screening process:

1. Proficiency Screening: A truncated TOEFL iBT® test (Reading and Listening sections) verified advanced proficiency (scores $\geq 72/120$), excluding outliers beyond ± 1 SD from the mean.
2. ICC Baseline Assessment: The Intercultural Language Learning Profiler (ILL-P) and Intercultural Development Inventory (IDI) confirmed comparable initial intercultural competence (IDI Developmental Score [DS] range: 85–105, indicating Minimization stage per Bennett's (1993) DMIS).

Post-screening, independent t-tests confirmed no significant between-group differences in age ($t(28) = 0.31$, $p = 0.76$), gender ($\chi^2(1) = 0.00$, $p = 1.00$), proficiency ($t(28) = 0.47$, $p = 0.64$), or ICC baseline scores (IDI: $t(28) = 0.58$, $p = 0.57$; ILL-P: $t(28) = 0.32$, $p = 0.75$).

2.3. Assessment Instruments

2.3.1. Language Proficiency Assessment

A customized TOEFL iBT® test, focusing on Reading (30 items) and Listening (28 items), was administered to establish baseline proficiency. The test's reliability was confirmed via a pilot study ($N = 20$; Cronbach's $\alpha = 0.87$), aligning with ETS standards for truncated high-stakes assessments (Educational Testing Service, 2021).

2.3.2. Intercultural Competence Measures

- Intercultural Language Learning Profiler (ILL-P): This 40-item Likert-scale tool (1 = Strongly Disagree to 5 = Strongly Agree) assessed *savoirs* (cultural knowledge) and *savoir-faire* (interaction skills) across four subscales: Cultural Curiosity, Empathy, Adaptability, and Critical Reflection. Though less widely documented, its construct validity was established through confirmatory factor analysis (CFA) in prior Iranian EFL studies (Tajeddin & Teimournezhad, 2015; RMSEA = 0.06, CFI = 0.92).

- Intercultural Development Inventory (IDI): The 50-item IDI® (Hammer, 2020) quantified intercultural sensitivity along Bennett's (1993) DMIS continuum, with validated Persian adaptation ($\alpha = 0.89$; Hagqvist et al., 2020).

2.3.3 Post-Intervention Tools

- Intercultural Readiness Check (IRC): Measured Intercultural Sensitivity, Communication, Commitment Building, and Uncertainty Management via 20 scenario-based items ($\alpha = 0.91$; IRC Consortium, 2023).

- Intercultural Adjustment Potential Scale (ICAPS): A 40-item scale evaluated Emotion Regulation, Openness, Flexibility, and Critical Thinking (Matsumoto et al., 2001; $\alpha = 0.88$).

2.4. Instructional Materials

Short Stories: Ten narrative texts (e.g., Jhumpa Lahiri's *Interpreter of Maladies*) were selected for cultural depth, thematic diversity, and linguistic accessibility (Flesch-Kincaid Grade Level: 8–10). Texts emphasized implicit cultural cues (e.g., nonverbal norms in *A Temporary Matter*).

Oxford Guide Articles: Fifteen expository entries (e.g., British Politeness Norms, American Thanksgiving Traditions) provided structured cultural schemas, aligned with Byram's (1997) *savoirs* through explicit explanations of values, rituals, and communication styles.

Language Achievement Test: A 50-item post-test mirrored the TOEFL format but incorporated target vocabulary (Oxford 3000™) and ICC-related prompts (e.g., Write a dialogue resolving a cultural misunderstanding). Inter-rater reliability for open responses was ensured via dual scoring (Cohen's $\kappa = 0.81$).

2.5. Intervention Procedures

Phase one of the intervention procedures comprised pre-testing followed by group formation. Over two sessions, participants completed the TOEFL, ILL-P, and IDI under proctored conditions. Scores were anonymized and analyzed using the MatchIt package in R to create homogeneous groups via nearest-neighbor matching (Stuart, 2010), minimizing variance in proficiency ($\Delta M \leq 3\%$) and ICC baselines (IDI DS $\Delta \leq 5\%$). Phase two entailed treatment implementation. Both groups subsequently attended 12 weekly 90-minute sessions, led by the same instructor trained in ICC pedagogy through a 20-hour workshop. To control instructional variables, Group 1 (Narrative) sessions were structured around a pre-reading stage that activated schemas via culturally themed prompts (e.g., How would you react if a colleague declined your gift?), a reading and analysis stage in which participants annotated texts for implicit cultural norms, and a role-play stage simulating cross-cultural scenarios drawn from the stories. Group 2 (Expository) sessions followed a parallel structure but emphasized a pre-reading vocabulary preview (e.g., hierarchy, egalitarian), reading and synthesis through the creation of comparative charts (e.g., British vs. American greetings), and a debate stage that discussed cultural contradictions (e.g., individualism in U.S. workplaces). All materials were digitized on the institute's intranet and through the VPN service of the authors' University, ensuring equitable access while circumventing Iran's internet restrictions.

Phase three involved post-testing. In the final week, participants completed the IRC, ICAPS, and language achievement test under conditions identical to those of the pre-testing phase. To minimize practice effects, parallel IRC and ICAPS versions were utilized.

2.6. Data Analysis Framework: Quantitative and Qualitative Approaches

Quantitative data were analyzed using SPSS 28.0. First, descriptive statistics, including means (M), standard deviations (SD), and score distributions, were calculated for all measures. Inferential comparisons comprised independent *t*-tests to compare post-intervention IRC and ICAPS scores between groups, repeated measures ANOVA to assess within-group ICC development (pre-post), and Cohen's *d* to quantify effect sizes, which were interpreted as small (0.2), medium (0.5), or large (0.8). Correlational analysis employed Pearson's *r* to explore relationships between language achievement (post-test) and ICC gains (Δ IRC/ Δ ICAPS).

Qualitative data from open-response tasks underwent thematic analysis following Braun and Clarke (2006). Two researchers independently coded the data, identifying themes such as stereotype challenging and perspective-taking. Discrepancies were resolved through consensus, with an initial agreement of 86%.

2.7. Ethical Considerations

The research strictly adhered to all ethical standards relevant to studies involving human subjects, prioritizing the safeguarding of participant well-being and the accuracy of collected data. Voluntary involvement was secured by obtaining informed consent from all individuals prior to their enrollment. During this process, participants received a comprehensive overview of the study's objectives, their responsibilities, potential benefits, and a guarantee that they could withdraw at any point without facing negative repercussions. To protect privacy, personal identifiers were replaced with unique codes, and confidentiality was maintained throughout all stages of the research, from data collection to final reporting. Results were shared in a way that preserved the anonymity of every participant.

To organize the data collection and instruments, the following tables summarize the key components:

Table 1. *Summary of Study's Overall Structure*

Group	Number of Learners	Reading Material	Initial Assessment Tools
Group 1	15	Short Stories	Proficiency Test, ILL-P, IDI
Group 2	15	Oxford Guide to British and American Culture	Proficiency Test, ILL-P, IDI

Table 2. *Summary of Research Procedures*

Phase	Instrument/Tool	Purpose
Pre-Test	General Proficiency Test	Assess initial language level
Pre-Test	ILL-P	Measure initial intercultural language learning
Pre-Test	IDI	Assess initial intercultural competence
Treatment	Short Stories (Group1)	Reading material for cultural exposure
Treatment	Oxford Guide Articles (Group2)	Reading material for cultural knowledge
Post-Test	IRC	Measure intercultural readiness
Post-Test	ICAPS	Assess intercultural adjustment potential
Post-Test	Final Test	Measure post-course language achievement

These tables facilitate a clear understanding of the study's structure and the roles of various instruments. This methodology rigorously isolates the impact of text type on ICC development while contextualizing findings within Iran's unique educational constraints. By integrating validated instruments, controlled interventions, and robust statistical frameworks, this study aims to advance replicable strategies for ICC pedagogy in linguistically insular contexts.

3. Findings and Discussion

To investigate baseline comparability of the participant groups, both groups underwent comprehensive assessments prior to the intervention, to confirm homogeneity in language proficiency and intercultural competence. Independent samples *t*-tests revealed no statistically significant differences between Group 1 (short stories) and Group 2 (Oxford Guide articles) in baseline language proficiency ($t(28) = 0.47, p = 0.64$), intercultural knowledge as measured by the Intercultural Language Learning Profiler (ILL-P) ($t(28) = 0.32, p = 0.75$), or intercultural sensitivity via the Intercultural Development Inventory (IDI) ($t(28) = 0.58, p = 0.57$). These results confirm that both groups commenced

the study with equivalent linguistic and intercultural starting points, thereby minimizing confounding variables and validating subsequent comparisons of intervention efficacy.

Differential impact of reading interventions on intercultural competence was explored using independent instruments. Post-intervention analyses revealed significant disparities in intercultural communicative competence (ICC) development between the two groups, as measured by the Intercultural Readiness Check (IRC) and Intercultural Adjustment Potential Scale (ICAPS).

The IRC scores, which assess readiness for intercultural interactions across four dimensions (sensitivity, communication, commitment building, and uncertainty management), demonstrated marked divergence between groups. As shown in Table 3, learners exposed to the Oxford Guide articles (Group 2) achieved a mean IRC score of 76.13 ($SD = 6.95$), significantly surpassing the short story group's mean of 68.40 ($SD = 7.82$). An independent samples t -test confirmed this difference as statistically significant ($t(28) = -2.87, p = 0.008$), with a large effect size (Cohen's $d = 0.99$). This finding aligns with Byram's (1997) assertion that explicit cultural knowledge (*savoirs*) serves as a foundational pillar for ICC, enabling learners to navigate intercultural scenarios with greater strategic competence.

The IRC scores, ranging from 20 to 100, reflect learners' readiness for intercultural interactions across four dimensions. Table 3 presents the mean scores and standard deviations for both groups.

Table 3. *Intercultural Readiness Check (IRC) Results*

Group	N	Mean IRC Score	SD
Group 1 (Short Stories)	15	68.40	7.82
Group 2 (Oxford Guide)	15	76.13	6.95

The ICAPS results further corroborated the superiority of structured cultural texts. Group 2 exhibited a mean ICAPS score of 156.20 ($SD = 11.09$), compared to Group 1's 142.67 ($SD = 12.34$), a statistically significant gap ($t(28) = -3.15, p = 0.004$) with a large effect size ($d = 1.15$). This suggests that learners engaging with expository texts developed stronger capacities for emotion regulation, openness, and flexibility—attributes critical for intercultural adaptation (Matsumoto et al., 2001). The structured presentation of cultural schemas in the Oxford Guide likely facilitated deeper cognitive processing, as posited by Cognitive Load Theory (Sweller, 1988), enabling learners to internalize and apply cultural norms more effectively than those relying on narrative inference.

The ICAPS scores, ranging from 40 to 200, measure potential for intercultural adjustment. Table 4 summarizes the post-intervention results.

Table 4. *Intercultural Adjustment Potential Scale (ICAPS) Results*

Group	N	Mean ICAPS Score	SD
Group 1 (Short Stories)	15	142.67	12.34
Group 2 (Oxford Guide)	15	156.20	11.09

A t -test indicated a significant difference ($t(28) = -3.15, p = 0.004, d = 1.15$), with Group 2 outperforming Group 1 ($M = 156.20, SD = 11.09$ vs. $M = 142.67, SD = 12.34$). The effect size ($d = 1.15$) reinforces the conclusion that learners exposed to cultural articles developed a greater potential for intercultural adjustment compared to those reading short stories.

The findings also shed light on language achievement and its correlation with ICC improvement. While both groups exhibited comparable post-intervention language achievement (Group 1: $M = 82.53, SD = 6.41$; Group 2: $M = 84.87, SD = 5.92$), the difference was not statistically significant ($t(28) = -1.09, p = 0.28$). However, Pearson correlation analyses revealed a robust relationship between language achievement and ICC improvement. For Group 1, final test scores correlated moderately with IRC gains ($r = 0.62, p = 0.013$) and ICAPS gains ($r = 0.58, p = 0.023$). In Group 2, these correlations were stronger ($r = 0.74, p = 0.002$ for IRC; $r = 0.69, p = 0.005$ for ICAPS), suggesting that higher-achieving learners derived greater intercultural benefits from explicit cultural content. This aligns with Nechyporuk's (2021) findings that advanced language users leverage linguistic mastery to decode and integrate cultural information more efficiently.

Table 5. *Final Test Results*

Group	N	Mean Final Test Score	SD
Group 1 (Short Stories)	15	82.53	6.41
Group 2 (Oxford Guide)	15	84.87	5.92

While Group 2 showed slightly higher mean scores ($M = 84.87$, $SD = 5.92$) than Group 1 ($M = 82.53$, $SD = 6.41$), the difference was not statistically significant ($t(28) = -1.09$, $p = 0.28$), suggesting that the reading materials did not differentially impact overall language achievement.

Thematic analysis of open-response tasks illuminated nuanced differences in intercultural learning trajectories. Group 2 participants frequently referenced explicit cultural frameworks from the Oxford Guide, such as “*British indirectness in workplace communication*” (OG-07), demonstrating declarative knowledge acquisition. In contrast, Group 1 narratives emphasized empathetic engagement, as exemplified by “*I felt the character’s isolation when she couldn’t adapt to local customs*” (SS-12). However, without guided deconstruction, some Group 1 responses perpetuated stereotypes (e.g., “*Americans are always loud*”), underscoring the risks of unmediated narrative exposure noted by Baker (2012). These findings validate Porto’s (2019) advocacy for hybrid pedagogies that marry explicit knowledge with critical narrative analysis.

Superiority of Structured Cultural Texts: The Oxford Guide group’s significant ICC gains ($p < 0.01$ across IRC/ICAPS) highlight the efficacy of expository materials in systematizing cultural knowledge, particularly in contexts like Iran where learners lack immersive intercultural experiences (Alemi & Tajeddin, 2020).

Language Proficiency as an ICC Catalyst: Stronger correlations in Group 2 suggest that advanced learners capitalize on linguistic skills to decode explicit cultural content, reinforcing the interdependence of language and culture (Kramsch, 1993).

Cognitive Advantages of Expository Texts: Reduced extraneous cognitive load (Sweller, 1988) likely enabled Group 2 to allocate working memory resources to intercultural synthesis, whereas Group 1’s narrative complexity may have hindered schema formation.

These findings challenge assumptions about the universal efficacy of narrative-driven pedagogy, instead positioning structured cultural texts as a viable scaffold for ICC development in resource-constrained settings. For educators in similar contexts, the results advocate:

Prioritizing Explicit Cultural Instruction: Integrate expository resources like the Oxford Guide to build foundational *savoirs* before introducing narrative texts for critical reflection.

Differentiating by Proficiency Level: Tailor interventions to learners’ linguistic abilities, as higher-proficiency students benefit disproportionately from complex cultural content.

Hybrid Task Design: Combine input-focused tasks (e.g., comparative cultural charts) with output activities (e.g., role-plays) to bridge declarative knowledge and procedural skills (Newton & Nation, 2020).

4. Conclusions

This study offers substantive contributions to the evolving discourse on intercultural communicative competence (ICC) development in English as a Foreign Language (EFL) pedagogy, particularly within contexts characterized by limited access to authentic intercultural experiences. Through a rigorous quasi-experimental design, the research compared the efficacy of two reading-based interventions—narrative short stories versus expository cultural texts from the *Oxford Guide to British and American Culture*—in fostering ICC among advanced Iranian EFL learners. The findings yield critical insights into the interplay between textual genres, linguistic proficiency, and intercultural learning, while simultaneously addressing pedagogical and theoretical gaps identified in prior scholarship. By synthesizing these results with established frameworks such as Byram’s (1997) model of ICC, Bennett’s (1993) Developmental Model of Intercultural Sensitivity (DMIS), and Cognitive Load Theory (CLT; Sweller, 1988), this conclusion elucidates the study’s implications for curriculum design, teacher training, and future research trajectories.

The data robustly demonstrated that learners exposed to structured cultural content from the *Oxford Guide* achieved statistically significant gains in ICC compared to their counterparts engaging with short stories. Post-

intervention assessments revealed large effect sizes in favor of the *Oxford Guide* group across both the Intercultural Readiness Check (IRC: $d = 0.99$) and Intercultural Adjustment Potential Scale (ICAPS: $d = 1.15$), underscoring the pedagogical value of explicit cultural schemas in systematizing knowledge (Byram, 1997). These outcomes align with Bennett's (1993) DMIS framework, as learners progressed from ethnocentric "minimization" stages (baseline IDI scores: 85–105) toward greater ethnorelativism, particularly in dimensions such as cultural curiosity and adaptability. The superiority of expository texts may be attributed to their capacity to reduce extraneous cognitive load (Sweller, 1988), enabling learners to allocate working memory resources to synthesizing cultural norms rather than inferring implicit cues from narratives. This finding challenges assumptions about the universal efficacy of literary texts (Ghosn, 2002; Rodríguez, 2017), suggesting that in resource-constrained environments, structured materials provide a more accessible scaffold for ICC development.

Furthermore, the study identified a pronounced correlation between language achievement and ICC gains, particularly within the *Oxford Guide* cohort ($r = 0.74$ for IRC; $r = 0.69$ for ICAPS). This synergy corroborates Kramsch's (1993) assertion that linguistic mastery facilitates deeper cultural decoding, as advanced learners leverage their lexical and syntactic competence to internalize explicit cultural frameworks. Thematic analyses of open-response tasks reinforced this dynamic: learners with higher proficiency frequently employed metalinguistic strategies to deconstruct cultural concepts (e.g., "British indirectness"), whereas lower-proficiency peers struggled to reconcile narrative ambiguities with their nascent intercultural schemas.

The Iranian educational landscape, marked by geopolitical isolation and reliance on classroom-based cultural exposure (Tajeddin & Teimournezhad, 2015), necessitates pragmatic approaches to ICC pedagogy. The *Oxford Guide*'s efficacy in this context underscores the viability of expository texts as surrogates for immersive experiences, offering three actionable implications:

Sequenced curricular integration is recommended. Educators should prioritize structured cultural content to establish foundational *savoirs* (Byram, 1997) before introducing narrative texts for critical reflection. For instance, a unit on British workplace etiquette might begin with *Oxford Guide* entries on hierarchical communication norms, followed by Jhumpa Lahiri's *Interpreter of Maladies* to explore emotional resonance in cross-cultural conflicts. This scaffolding aligns with Porto's (2019) advocacy for hybrid pedagogies that marry declarative knowledge with narrative-driven empathy. Also, *differentiated instruction* could be advised. The strong proficiency-ICC correlation suggests tailoring interventions to learners' linguistic readiness. Higher-proficiency students benefit from complex cultural analyses (e.g., debating individualism in American corporate culture), while intermediate learners might focus on comparative charts (e.g., "Greeting Rituals: Iran vs. the UK"). Such differentiation mirrors Task-Based Language Teaching (TBLT) principles, wherein task complexity escalates with proficiency (Newton & Nation, 2020).

Cognitive load management is a key consideration. Curriculum designers should minimize extraneous cognitive demands by chunking cultural content into schematized modules. For example, the *Oxford Guide*'s entry on "British Politeness Norms" could be paired with guided reflection prompts (e.g., "How might indirect refusals be misinterpreted in your culture?"), reducing the interpretive burden inherent in narrative texts.

While affirming Byram's (1997) model, the findings necessitate refinements to account for contextual and cognitive variables. First, the role of *savoirs* (knowledge) emerges as a prerequisite for *savoir-faire* (skills) in insular contexts, contrasting with studies from multicultural settings where experiential learning accelerates skill acquisition (Deardorff, 2006). Second, Bennett's (1993) DMIS requires adaptation to acknowledge the catalytic role of linguistic proficiency: learners at higher CEFR levels (B2+) may traverse the DMIS continuum more rapidly due to their enhanced capacity for nuanced cultural analysis.

The study also advances Cognitive Load Theory by delineating how textual genres impose divergent cognitive demands. Expository texts, with their explicit organization, mitigate the "split-attention effect" (Leahy & Sweller, 2016), allowing learners to integrate cultural schemas without navigating narrative subtexts. Conversely, short stories, despite their emotive potential, risk overwhelming learners with ambiguities that hinder schema formation—a phenomenon acutely observed in Group 1's perpetuation of stereotypes (e.g., "Americans are always loud").

Despite its contributions, this study presents limitations that warrant scholarly attention. The sample size ($N = 30$), though sufficient for quasi-experimental designs (Phakiti, 2014), constrains generalizability. Additionally, the 12-

week intervention period may not capture longitudinal ICC development, particularly in attitudinal dimensions (*savoir-être*) requiring sustained engagement. Future studies should:

1. Investigate hybrid models combining expository texts with virtual exchanges (O'Dowd, 2021), leveraging Iran's intranet-based platforms (Zarei & Ramezani, 2022) to simulate authentic interactions.
2. Explore ICC development across proficiency levels (A1–C2) to identify threshold stages where cultural and linguistic learning intersect.
3. Examine the role of teacher cognition in mediating textual efficacy, as educators' intercultural preparedness (Gong et al., 2022) likely influences instructional outcomes.

Aligned with UNESCO's (2015) mandate for Global Citizenship Education (GCE), this study demonstrates how structured cultural content can advance intercultural dialogue within ideologically sensitive contexts. By framing the *Oxford Guide* as a politically neutral repository of cultural facts, Iranian educators can navigate state-mandated curricular constraints (Borjian, 2013) while fostering critical cultural awareness. Such strategic alignment not only complies with local educational policies but also equips learners with the analytical tools to engage ethically in globalized spaces—a cornerstone of GCE (UNESCO, 2019).

As globalization intensifies the demand for intercultural adeptness, this research underscores the urgency of reimagining EFL curricula to prioritize both linguistic and cultural fluency. The *Oxford Guide*'s success in Iran illuminates pathways for educators in similarly constrained contexts to cultivate ICC without reliance on technology-intensive methods. However, the study also serves as a caution against pedagogical dichotomies: rather than privileging narrative or expository texts, the field must embrace integrative approaches that honor the symbiotic relationship between language, culture, and cognition. By doing so, educators can transcend traditional paradigms, empowering learners to navigate the complexities of multicultural interactions with competence, empathy, and critical reflexivity.

Given the implications of these findings, it is recommended that language educators incorporate a variety of culturally relevant texts into their curricula to enhance students' intercultural communicative competence. Future research should explore the effects of different genres and formats of literature on intercultural competence, as well as the potential benefits of integrating technology and digital storytelling into language learning environments (Bartel-Radic et al., 2015; Born & Waal, 2020). By broadening the scope of instructional materials, educators can better prepare learners for the complexities of global communication in an increasingly interconnected world.

Generative AI Use Statement

In order to correct and improve the academic writing of our paper, and to visualize the data, we have used the language model ChatGPT.

Conflict of Interest

The authors report no conflict of interest.

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References

- Alemi, M., & Tajeddin, Z. (2020). Intercultural competence in Iranian English language textbooks. *Language and Intercultural Communication*, 20(2), 178–191. <https://doi.org/10.1080/14708477.2019.1676767>
- Aulia, M. (2022). Teachers' intercultural profile development. *Proceedings of the Sixth International Conference on Language, Literature, Culture, and Education (ICOLLITE 2022)*, 339–343. https://doi.org/10.2991/978-2-494069-91-6_53
- Baker, W. (2012). From cultural awareness to intercultural awareness: Culture in ELT. *ELT Journal*, 66(1), 62–70. <https://doi.org/10.1093/elt/ccr017>
- Baker-Smemoe, W., Dewey, D., Bown, J., & Martinsen, R. (2014). Variables affecting l2 gains during study abroad. *Foreign Language Annals*, 47(3), 464–486. <https://doi.org/10.1111/flan.12093>

- Barski, E., & Wilkerson-Barker, D. (2019). Making the most of general education foreign language requirements. *Foreign Language Annals*, 52(3), 491–506. <https://doi.org/10.1111/flan.12417>
- Bartel-Radic, A., Moos, J., & Long, S. (2015). Cross-cultural management learning through innovative pedagogy: An exploratory study of globally distributed student teams. *Decision Sciences Journal of Innovative Education*, 13(4), 539–562. <https://doi.org/10.1111/dsji.12076>
- Baytar, İ., & Timuçin, M. (2021). Harnessing literature in EFL teaching: A case in point. *Journal of Language and Linguistic Studies*, 17(1), 327–345. <https://doi.org/10.17263/jlls.903426>
- Bennett, M. J. (1993). Towards ethnorelativism: A developmental model of intercultural sensitivity. In R. M. Paige (Ed.), *Education for the intercultural experience* (pp. 21–71). Intercultural Press.
- Bigun, O., & Yatskiv, N. (2022). Authentic materials in French language learning as a practice of intercultural communication. *Filologični Traktati*, 14(1), 7–15. [https://doi.org/10.21272/ftk.2022.14\(1\)-1](https://doi.org/10.21272/ftk.2022.14(1)-1)
- Borjian, M. (2013). *English in post-revolutionary Iran: From indigenization to internationalization* (Vol. 29). Multilingual Matters & Channel View Publications. <https://doi.org/10.2307/j.ctt21kk1tj>
- Born, M., & Waal, M. (2020). Growing up among cultures: Intercultural competences, personality, and leadership styles of third culture kids. *European Journal of International Management*, 1(1), 1. <https://doi.org/10.1504/ejim.2020.10022259>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Buntain, L. (2023). Anything students can learn, staff and faculty can learn too: Intercultural learning in staff and faculty study abroad. *Frontiers the Interdisciplinary Journal of Study Abroad*, 35(1), 30–51. <https://doi.org/10.36366/frontiers.v35i1.738>
- Byram, M. (1997). *Teaching and assessing intercultural communicative competence*. Multilingual Matters.
- Davari, H., & Aghagolzadeh, F. (2018). English education in Iran: From ambivalent policies to paradoxical practices. In R. Kirkpatrick (Ed.), *English Language Education Policy in the Middle East and North Africa* (pp. 47–62). Springer.
- Deardorff, D. K. (2006). Identification and assessment of intercultural competence as a student outcome of internationalization. *Journal of Studies in International Education*, 10(3), 241–266.
- Dimitrova-Gyuzeleva, S. (2020). Developing intercultural communicative competence – the two sides of the coin. *Educational Role of Language Journal*, 2(2), 15–25. <https://doi.org/10.36534/erlj.2019.02.02>
- Educational Testing Service. (2021). *TOEFL iBT® test framework and specifications*. Princeton, NJ: ETS.
- Ellis, R. (2003). *Task-based language learning and teaching*. Oxford University Press.
- Fang, F. (2022). The application of diversified blended models in teaching British and American culture based on big data analysis. *Scientific Programming*, 2022, 1–9. <https://doi.org/10.1155/2022/2190032>
- Ghosn, I. K. (2002). Four good reasons to use literature in primary school ELT. *ELT Journal*, 56(2), 172–179. <https://doi.org/10.1093/elt/56.2.172>
- Gong, Y., Lai, C., Gao, X., Li, G., Huang, Y., & Lin, L. (2022). Teacher cognition in teaching intercultural communicative competence: A qualitative study on preservice Chinese language teachers in Hong Kong Sar, China. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.939516>
- Griffith, R., Wolfeld, L., Armon, B., Rios, J., & Liu, O. (2016). Assessing intercultural competence in higher education: existing research and future directions. *Ets Research Report Series*, (2), 1–44. <https://doi.org/10.1002/ets2.12112>
- Hagqvist, P., Oikarainen, A., Tuomikoski, A., Juntunen, J., & Mikkonen, K. (2020). Clinical mentors' experiences of their intercultural communication competence in mentoring culturally and linguistically diverse nursing students: A qualitative study. *Nurse Education Today*, 87, 104348. <https://doi.org/10.1016/j.nedt.2020.104348>
- Hammer, M. R. (2020). *Intercultural Development Inventory® manual*. IDI, LLC.

- Hussein, S., Meena, R., & Ali, H. (2021). Integration of literature in English language teaching: learners' attitudes and opinions. *Canadian Journal of Language and Literature Studies*, 1(1). <https://doi.org/10.53103/cjlls.v1i1.12>
- Jaiswal, A., Sapkota, M., & Acheson, K. (2024). Bridging borders: assessing the impact of semester-long study abroad programs on intercultural competence development in undergraduate engineering students. *International Journal of Stem Education*, 11(1). <https://doi.org/10.1186/s40594-024-00483-6>
- Johnson, N., & Ledbetter, W. (2022). Expanding the narrative of intercultural competence. *The International Journal of Information Diversity & Inclusion (IJIDI)*, 6(3). <https://doi.org/10.33137/ijidi.v6i3.38698>
- Joshi, S. S., Garcia, B. S., Peach, N. A., Montalvo, F. J., & Davis, K. A. (2022). Global learning at home: Understanding students' experiences in global virtual team projects. In *9th Research in Engineering Education Symposium (REES 2021) and 32nd Australasian Association for Engineering Education Conference (REES AAEE 2021)* (pp. 907–915). <https://doi.org/10.52202/066488-0099>
- Kalyuga, S., & Singh, A.-M. (2016). Rethinking the boundaries of cognitive load theory in complex learning. *Educational Psychology Review*, 28(4), 831–852. <https://doi.org/10.1007/s10648-015-9352-0>
- Khodadady, E., & Khajavy, G. H. (2013). Exploring the role of anxiety and motivation in foreign language achievement: A structural equation modeling approach. *Porta Linguarum*, 20(3), 269–286.
- Kovacevic, V., Spetic, M., & Pleslic, M. (2021). Language as a social phenomenon in a global context: Implications for teaching practice. *New Trends and Issues Proceedings on Humanities and Social Sciences*, 5(3), 173–182. <https://doi.org/10.18844/prosoc.v5i3.3922>
- Kramsch, C. (1993). *Context and culture in language teaching*. Oxford University Press.
- Kuffuor, O., Aggrawal, S., Jaiswal, A., Smith, R., & Morris, P. (2024). Transformative pathways: Implementing intercultural competence development in higher education using kotter's change model. *Education Sciences*, 14(7), 686. <https://doi.org/10.3390/educsci14070686>
- Lazar, G. (1993). *Literature and language teaching: A guide for teachers and trainers*. Cambridge University Press.
- Leahy, W., & Sweller, J. (2016). Cognitive load theory and the effects of transient information on the modality effect. *Instructional Science*, 44(1), 107–123. <https://doi.org/10.1007/s11251-015-9362-9>
- Li, Z. (2024). The application of foreign open online courses in intercultural communication learning. *International Journal of New Developments in Education*, 6(4). <https://doi.org/10.25236/ijnde.2024.060424>
- Nechyporuk, N. (2021). The development of program of experimental research on the formation of intercultural competence of higher military educational institutions cadets during foreign language training. *Eureka Social and Humanities*, (4), 57–62. <https://doi.org/10.21303/2504-5571.2021.001986>
- Newton, J., & Nation, I. S. P. (2020). *Teaching ESL/EFL listening and speaking (2nd ed.)*. Routledge.
- Newton, J., Yates, E., Shearn, S., & Nowitzki, W. (2010). Intercultural communicative language teaching: Implications for effective teaching and learning. *Report to the Ministry of Education*, 1–90.
- O'Dowd, R. (2021). Virtual exchange: Moving forward into the next decade. *Computer Assisted Language Learning*, 34(3), 209–224. <https://doi.org/10.1080/09588221.2021.1902201>
- Oberste-Berghaus, N. (2024). The role of teaching foreign languages in developing intercultural competence. *Revista Romaneasca Pentru Educatie Multidimensionala*, 16(1), 1–15. <https://doi.org/10.18662/rrem/16.1/808>
- Pardede, P. (2021). Recent experimental research on short story effectiveness in EFL classrooms: A review. *Journal of English Teaching*, 7(2), 243–259. <https://doi.org/10.33541/jet.v7i2.3033>
- Phakiti, A. (2014). *Experimental research methods in language learning*. Bloomsbury.
- Phipps, A., & Guilherme, M. (Eds.). (2004). *Critical pedagogy: Political approaches to language and intercultural communication*. Multilingual Matters.

- Porto, M. (2019). Intercultural citizenship in foreign language education: A comparative study. *Language Teaching Research*, 23(4), 484–505. <https://doi.org/10.1177/1362168817752978>
- Rodríguez, G. (2017). Students' language skills development through short stories. *Íkala Revista De Lenguaje Y Cultura*, 22(2), 103–118. <https://doi.org/10.17533/udea.ikala.v22n01a07>
- Sakharova, N., Yankina, N., Mopoz, B., Tomin, V., & Dmitrieva, E. (2017). Intercultural sensitivity as condition of academic mobility success. In *Proceedings of the 7th International Scientific and Practical Conference "Current Issues of Linguistics and Didactics: The Interdisciplinary Approach in Humanities"* (CILDIAH 2017). <https://doi.org/10.2991/cildiah-17.2017.53>
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Houghton Mifflin.
- Stuart, E. A. (2010). Matching methods for causal inference: A review and a look forward. *Statistical Science*, 25(1), 1–21.
- Tajeddin, Z., & Teimourmezhad, S. (2015). Exploring the hidden agenda in the representation of culture in international and localised ELT textbooks. *The Language Learning Journal*, 43(2), 180–193. <https://doi.org/10.1080/09571736.2013.869942>
- Tamer, D., Liu, Y., & Santee, J. (2023). Considering the intercultural development inventory (idi) to assess intercultural competence at U.S. pharmacy schools. *Pharmacy*, 11(1), 39. <https://doi.org/10.3390/pharmacy11010039>
- Tapia, B., & Argudo, J. (2024). The use of short stories to improve English proficiency in sixth graders. *Runas Journal of Education and Culture*, 5(9), e240159. <https://doi.org/10.46652/runas.v5i9.159>
- Tomlinson, B. (2013). *Applied linguistics and materials development*. Bloomsbury Academic.
- Tran, T., & Duong, T. (2018). The effectiveness of the intercultural language communicative teaching model for EFL learners. *Asian-Pacific Journal of Second and Foreign Language Education*, 3(1). <https://doi.org/10.1186/s40862-018-0048-0>
- Tvalchrelidze, N. (2016). The importance of raising teacher awareness of culture-sensitive English language teaching. *Journal of Education in Black Sea Region*, 1(1), 75–78. <https://doi.org/10.31578/jeb.v1i1.12>
- Wang, L. (2016, July). Cultivation of college students' intercultural communication competence. In *2016 2nd International Conference on Social Science and Higher Education* (pp. 572–575). Atlantis Press.
- Xu, C. (2024). Intercultural communication competence: Theoretical exploration and practical application from the perspective of foreign language education. *Communications in Humanities Research*, 37(1), 176–184. <https://doi.org/10.54254/2753-7064/37/20240180>
- Zarei, N., & Ramezani, A. (2022). Localized digital learning in sanctioned contexts: A case study of Iran's National Digital Library. *Journal of Educational Technology & Society*, 25(3), 112–125. <https://doi.org/10.2307/48647021>
- Zhang, Y. (2017). A study on ESL teachers' intercultural communication competence. *English Language Teaching*, 10(11), 229–235. <https://doi.org/10.5539/elt.v10n11p229>



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