

Research paper

Navigating EFL Speaking Success: Fluency and Accuracy through Interactional and Intercultural Competence

Alireza Zaker¹, & Shiva Azizpour^{2,3*}

¹ Assistant Professor, Department of Teaching English and Translation, Ka.C., Islamic Azad
University, Karaj, Iran.

² Lecturer, Department of English Language and Literature, Allameh Tabataba'i University,
Tehran, Iran.

³ Ph.D. in Applied Linguistics, Department of English Language, Urmia University, Urmia, Iran.

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*corresponding author: sh.azizpour@urmia.ac.ir

Abstract

In today's interconnected world, mastering a foreign language extends beyond linguistic mastery; it requires the ability to navigate both interactional dynamics and cultural diversity. This study investigated the comparative effects of fostering Interactional Competence (IAC) and Intercultural Competence (ICC) on English as a Foreign Language (EFL) learners' speaking accuracy and fluency. Sixty Iranian intermediate EFL learners, aged 16–30 years ($M_{age} = 23$), and comprising both female and male participants, were selected based on their Preliminary English Test (PET) scores and randomly assigned to two experimental groups: one focusing on Interactional Competence (IAC) and the other on Intercultural Competence (ICC). Over five treatment sessions, the IAC group engaged in conversational activities emphasizing turn-taking, topic management, and negotiation strategies, while the ICC group explored cultural norms, pragmatic variations, and contextual adaptation in communication. Pretest and posttest evaluations measured speaking accuracy and fluency, with data analyzed using descriptive statistics, Kolmogorov-Smirnov tests, Wilcoxon Signed-Rank tests, and Mann-Whitney U tests. The findings revealed that both groups exhibited significant improvements; however, the IAC group demonstrated greater enhancements in fluency and conversational management, whereas the ICC group outperformed the IAC group in culturally

nanced communication and pragmatic awareness. These results underscore the complementary roles of IAC and ICC in enhancing EFL speaking performance. The study concludes that integrating these competencies into language curricula fosters holistic communication skills. Pedagogical implications highlight the necessity for EFL educators to adopt an integrated approach, balancing cultural awareness with interactional strategies to prepare learners for authentic global communication.

Keywords: Interactional Competence, Intercultural Competence, Speaking Accuracy, Speaking Fluency

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Introduction

In today's globalized world, mastering both fluency and accuracy in English as a Foreign Language (EFL) is more crucial than ever, necessitating a focus on Interactional Competence (IAC) and Intercultural Competence (ICC), which are among the main objectives of contemporary foreign language education (Eren, 2024; Nafisah et al., 2024; Ruzigul, 2024; Zhang & Zhou, 2019). The learning environment has consistently been a focal point for second language acquisition (SLA) researchers, with studies indicating that learners engaged in dynamic, interactive instruction are more integrated into their instructional experience (Martin & Nakayama, 2018).

IAC encompasses understanding communication rules and utilizing both interactional and linguistic resources, including turn-taking mechanisms and the management of tasks, within specific contexts (Galaczi & Taylor, 2018). In EFL spoken interactions, interlocutors engage and collaboratively construct reciprocal and vibrant dialogues (Galaczi & Taylor, 2018). Additionally, IAC encompasses various interactional categories, such as asymmetric and collaborative, which are informed by both psycholinguistic-individualist and sociolinguistic-interactional frameworks (Dai, 2024). Moreover, the emphasis on developing ICC among language learners has become increasingly prominent in foreign language education, as ICC is broadly defined as the complex

of abilities needed to perform effectively and appropriately when interacting with culturally diverse individuals, and is essential in the globalized world where individuals are expected to perform effectively during intercultural exchanges (Kasumagić-Kafedžić et al., 2024). However, many language learners lack sufficient intercultural knowledge, attitudes, and skills, making it necessary to identify effective strategies to improve ICC (Zaker, 2016; Zhang & Chen, 2023; Zhang & Zhou, 2019).

Furthermore, enhancing speaking skills is crucial for language learners to develop into adept and self-assured speakers (Arghashi et al., 2022; Bonilla & Valencia, 2018). Speaking accuracy, denoting the ability to produce correct language forms including pronunciation, grammar, vocabulary, and usage, can be measured using rubrics, checklists, and rating scales in language assessments (Hinkel, 2006; Rustomov & Mamaziyayev, 2022; Song & Song, 2023). On the other hand, speaking fluency is characterized by the ability to produce continuous, smooth, and coherent verbal utterances with natural rhythm, speed, and intonation, allowing for spontaneous and effortless communication (De Jong, 2018; Qobilovna, 2023). It encompasses the proficiency to articulate thoughts seamlessly, without undue pausing, self-correction, or hesitancy, and is indicative of a speaker's overall communicative competence in a given language (Anjani, 2023).

EFL learners face various challenges in developing speaking fluency and accuracy, with IAC contributing significantly to progress in these areas (Gass & Mackey, 2007). Research has demonstrated that learners with strong IAC can engage in meaningful conversations, negotiate meaning, and express themselves fluently (Gass & Mackey, 2007). On the other hand, ICC enhances the ability to navigate cross-cultural communication challenges and adapt language use, making it crucial for preparing learners to effectively engage in diverse intercultural interactions (De Jong, 2018).

Despite the recognized importance of both IAC and ICC, to the best of the researchers' knowledge, no studies in the literature have examined the comparative effects of fostering IAC versus ICC on EFL learners' speaking accuracy and fluency. Existing studies predominantly focus on either IAC or ICC in isolation, lacking a comparative analysis of their effects on these aspects of speaking proficiency (De Jong, 2018; Gass & Mackey, 2007). While previous research has underscored the benefits of IAC in enhancing conversational management and fluency and highlighted the contributions of ICC in cultivating culturally nuanced and pragmatically appropriate communication, a critical gap remains in directly comparing their relative effectiveness within the same instructional context. Addressing this gap, this study aims to systematically investigate the comparative effects of fostering IAC versus ICC on the speaking accuracy and fluency of Iranian EFL learners. By examining these competencies in tandem, the study seeks to identify which should be prioritized in curriculum design and instructional methods to enhance spoken English proficiency effectively. The significance of this research lies not only in its empirical evaluation of the differential impacts of these approaches on EFL learners' speaking performance but also in its contribution to the field of language education by offering insights into effective pedagogical strategies that integrate both interactional and intercultural elements. Evaluating how these competencies interact and influence each other might inform the development of balanced instructional approaches, ultimately equipping educators with evidence-based practices that promote holistic communication skills and better prepare learners for authentic global interactions.

Theoretical framework

This study subscribes to the theoretical framework of communicative competence as conceptualized by Canale and Swain (1980), which encompasses grammatical, sociolinguistic, discourse, and strategic competence. Canale and Swain (1980) proposed that communicative competence integrates linguistic accuracy with the ability to use language appropriately within social contexts, thus providing a robust foundation for effective communication in second language acquisition. Building on this framework, Celce-Murcia et al. (1995) expanded the concept to include IAC, addressing learners' capacity to manage interactions, an essential component in achieving conversational fluidity and coherence. Furthermore, Byram's (2012) model of ICC is incorporated, highlighting the critical role of cultural awareness and sensitivity in facilitating effective intercultural communication. By synthesizing these models, this study aims to compare the effects of fostering IAC versus ICC on EFL learners' speaking accuracy and fluency. The integrative approach of this theoretical framework underscores the multifaceted nature of communicative competence and offers a comprehensive perspective through which different pedagogical strategies can be examined.

Interactional Competence

Hackett et al. (2023) defined Interactional Competence (IAC) as the strategic use of language in varied social and cultural contexts, encompassing both verbal and non-verbal communication. In essence, IAC is integral to effective communication and language proficiency, enabling individuals to engage successfully across diverse social and cultural settings. IAC, a crucial component of effective communication, involves the strategic use of language resources to convey meaning in real-life situations (Pramastiwi, 2024; Ruzigul, 2024). For EFL learners, developing

IAC is a primary goal (Young, 2011). It builds upon communicative competence components, such as rhetorical script, practice register, turn-taking, topic management, participation framework, and signaling transitions. Pramastiwi (2024) conceptualized IAC as the capacity for effective social interaction, focusing on the co-construction of meaning and the application of pragmatic knowledge. This concept transcends linguistic proficiency, accentuating the importance of collaborative communication and contextual understanding. IAC encompasses the dynamic and nuanced aspects of interaction, including verbal and nonverbal communication, context awareness, and the ability to negotiate meaning in real-time.

Scholars have examined multiple facets of IAC, including the significance of context, language proficiency, and the capacity to modify communication strategies according to situational demands. These studies underscore the critical role of IAC in both personal and professional domains, where effective communication is essential for building robust relationships and accomplishing shared goals. Furthermore, scholars have investigated the development of IAC, scrutinizing how individuals acquire and refine their communication skills over time through active engagement in social interactions and the observation of others. This body of research highlights the dynamic nature of IAC and its potential for continuous growth and improvement (Juliastuti et al., 2023).

Ruzigul (2024) emphasized the significance of interactive processes in language development and speaking proficiency. Interaction encompasses verbal exchanges between individuals, including asking and answering questions, expressing opinions, clarifying meaning, and providing feedback. Such exchanges enable learners to develop communicative competence, including turn-taking skills, active listening, and appropriate response strategies, which are vital in authentic communication settings (Ruzigul, 2024). Moreover, Tai and Dai (2024) explored the relationship

between translanguaging and IAC in multilingual contexts, emphasizing the dynamic and transformative nature of social interactions. Their study aimed to expand the concept of IAC by integrating it with translanguaging, which involves the use of diverse linguistic, semiotic, and sociocultural resources to communicate effectively. The authors posited that translanguaging reflects an individual's IAC by constructing new language practices for communicative purposes (Tai & Dai, 2024). This perspective highlights the emergent, collaborative nature of meaning-making and social action in multilingual settings. To support their argument, the researchers analyzed video recordings of terminology lessons in a beginner ESOL class using sequential-categorical analysis, which integrates multimodal discourse analysis with membership-organized analysis. The study underscored the importance of strategically utilizing multilingual and multimodal resources to accomplish social actions and facilitate effective communication in diverse linguistic environments (Tai & Dai, 2024).

Intercultural Competence

Intercultural Competence (ICC) is identified as essential in foreign language education, equipping students with crucial abilities for success in various cultural environments (Nematullaeva, 2024). Cultivating ICC helps learners understand their own culture and the subtleties of the target language, facilitating effective communication with diverse individuals. Educators play a pivotal role in promoting ICC by exemplifying intercultural conduct and guiding students. Fostering ICC offers benefits including heightened empathy, improved communication, and stronger engagement among diverse individuals (Nematullaeva, 2024).

Dervin and Gross (2016) characterized ICC as possessing relevant cultural knowledge and a general awareness of complexities during interactions among diverse individuals. This definition

emphasizes the importance of maintaining connections with diverse individuals and the skills to effectively utilize knowledge and attitudes in intercultural interactions. It acknowledges that cultural knowledge assessment is subjective and that learning about cultures is non-linear; individuals may engage in behaviors opposing other cultural norms. Consequently, ICC encompasses a blend of knowledge, attitudes, skills, and behaviors, highlighting adaptability and the capacity to navigate intercultural contexts. ICC extends beyond mere tolerance or respect, involving a complex set of abilities for engaging with linguistically and culturally diverse individuals. It includes affect, behavior, and cognition, each cyclically influencing the others (Spitzberg & Changnon, 2009).

Although definitions of ICC vary, they often embody the “ABC” (affect, behavior, cognition) triumvirate (Martin & Nakayama, 2018). Consequently, ICC encompasses three key dimensions: 1) Affective dimension - Intercultural sensitivity: fostering empathy and openness towards different cultures; 2) Behavioral dimension - Intercultural adroitness: developing appropriate behaviors for effective communication across cultures; 3) Cognitive dimension - Intercultural awareness: cultivating knowledge and critical thinking to comprehend cultural differences. These interrelated ICC components develop through interactions (Martin & Nakayama, 2018).

Dorobanțu-Dina (2021) highlighted the importance of ICC in response to globalization and migration, integrating intercultural education into Romania's curriculum since 2017. Intercultural education promotes dialogue, tolerance, and communication among individuals. Dorobanțu-Dina (2021) outlined three stages: identifying cultural competencies, providing targeted training, and evaluating effectiveness. This structured approach ensures a comprehensive development of ICC among students. Additionally, the creation of an initiation guide for teacher training was emphasized (Dorobanțu-Dina, 2021).

In a recent study, Sabet and Chapman (2023) discussed the increasing importance of ICC in higher education due to globalization, which affected both international students and staff in host countries. Despite efforts to address ICC development, a gap in the literature remained due to the complexity of the construct. The authors examined the current state of ICC literature and proposed an efficient approach to address its development. They also evaluated ICC programs in higher education, focusing on the promotion of efficiency and sustainability. Their paper emphasized the impact of ICC on three core aspects of education: scholastic, emotional, and interpersonal outcomes in higher education settings (Sabet & Chapman, 2023). Overall, the study highlighted the significance of ICC in the globalized landscape of tertiary education.

More recently, Haregu et al. (2024) underscored the significance of enhancing learners' ICC for successful cooperative EFL learning in Ethiopian higher education and similar foreign language teaching contexts. Consequently, they recommended integrating ICC training into university curricula and incorporating cultural content in teaching materials. Furthermore, Oberste-Berghaus (2024) highlighted the crucial role of foreign language teaching in cultivating ICC, particularly within the context of increasing cross-cultural communication in our globalized society. The study stressed the importance of equipping learners with competencies beyond linguistic proficiency, including a comprehensive understanding of sociocultural elements and universal practices. Oberste-Berghaus (2024) evaluated effective teaching strategies for promoting ICC, such as using authentic resources, encouraging self-directed learning, and offering opportunities for reflective practice. The study emphasized the critical role of educators in creating meaningful intercultural learning experiences and guiding students toward enhanced intercultural understanding. Additionally, Ruzigul (2024) emphasized the importance of task selection, scaffolding, feedback, and technology integration, thereby offering strategies for educators to

enhance learners' speaking proficiency. In conclusion, the study suggested designing tasks that balance interaction and accuracy while providing support through scaffolding and feedback in a conducive environment. Moreover, Yang and Meihami (2024) explored the impact of technology-enhanced instructional approaches on communicative competence in cross-cultural English settings. The study employed a questionnaire to gather data on the effectiveness of communicative competence training and utilized t-tests and correlation tests for analysis. As a result, the study indicated an improvement in ICC among students who participated in computer-assisted teaching compared to those in traditional settings. Similarly, Pramastiwi (2024) discussed the significance of forming professional communicative ICCs in the process of teaching foreign languages for professional purposes, particularly in technical university settings. The article emphasized the importance of business communication skills in developing students' verbal culture, activity, initiative, and ability to defend their interests effectively (Pramastiwi, 2024).

Teaching foreign languages in the classroom involves both developing language skills and cultivating intercultural competency among teachers and students, equipping students with the necessary skills to thrive in various cultural contexts. Integrating an intercultural approach into teaching can be challenging but rewarding, as teachers must be interculturally competent to serve as role models and guide students' growth in this area. The development of students' interculturality is closely linked to how teachers conceptualize and embody it through their behavior, thus modeling intercultural behavior and supporting students' learning process (Nematullaeva, 2024).

Recent studies have underscored the evolving significance of ICC in language education, particularly in student interactions within internationalized universities (D'Orazzi & Marangell, 2025). ICC is increasingly recognized as a key factor influencing foreign language learners' self-

perceived proficiency, as the quality and quantity of intercultural interactions mediate learners' communicative effectiveness (Li, et al., 2025). The importance of fostering ICC has been further highlighted through bibliometric reviews analyzing its integration in second/foreign language education over nearly seven decades (Cong-Lem, 2025). Further, emerging discussions explore the intersection of artificial intelligence with intercultural communication, revealing new frontiers and research agendas that reshape the conceptual understanding of ICC (Dai & Hua, 2025). These perspectives collectively reinforce the necessity of embedding ICC training within EFL curricula to better equip learners for cross-cultural exchanges.

Meanwhile, the assessment of second language fluency has gained prominence in applied linguistics research, emphasizing multimodal modeling approaches that go beyond mere accuracy in structured speaking skill development (Mawalim et al., 2025; Tavakoli, 2025). Scholars have increasingly examined fluency within the framework of linguistic proficiency, demonstrating that L1 fluency can be a predictive factor for L2 utterance fluency (Suzuki & Kormos, 2025). Besides, integrating cognitive and linguistic competencies through structured pedagogical approaches has shown promising outcomes for developing speaking proficiency (Chalak & Mazrouei, 2021; Komila, 2025; Lee, 2025).

Speaking Accuracy and Fluency

Speaking skills play a pivotal role in language learning as they are fundamental for successful communication, encompassing effective expression, participation in discussions, and clear articulation of thoughts (DeJonckheere & Vaughn, 2019; Mohzana, 2023). However, developing these skills can be challenging due to limited practice opportunities, low self-confidence, and restricted access to communicative situations, highlighting the need to explore innovative learning

strategies (Wyatt et al., 2021). Speaking accuracy refers to the degree of conformity of a speaker's oral production to the phonological, grammatical, lexical, and syntactic norms of the target language. It encompasses precise pronunciation, appropriate use of grammar, and accurate vocabulary selection, ensuring the clarity and correctness of communication (Ellis, 2009; Housen & Kuiken, 2009; Ruzigul, 2024). On the other hand, speaking fluency is characterized by producing language without excessive pausing or hesitation, maintaining a comfortable pace, and focusing on the message rather than the language (Onoda, 2014; Sato, 2020). Besides, it involves using words effectively with ease, speed, and fluidity, maintaining natural conversation with minimal pauses and reduced use of fillers, reflecting the ability to use a language naturally and efficiently (Housen & Kuiken, 2009). Fluency holds a vital role in how successful language learners are perceived, as those who exhibit fluency are often considered proficient (Pishkar et al., 2017). Furthermore, researchers widely recognize that fluency is a complex, multifaceted concept that can be challenging to define and measure, involving fluidity, velocity, tempo, and precise linguistic output (Suzuki & Kormos, 2023). Ultimately, achieving fluency involves focusing on content over structure and effectively utilizing the language's structures, units, and conventions at the pace of conversation when required (Wang et al., 2024).

Research indicates that developing speaking fluency might be challenging for EFL learners due to numerous linguistic and contextual factors (Kholmurodovna, 2024). These factors include learner motivation, anxiety, teaching methods, and sociocultural influences (Kholmurodovna, 2024). Motivated learners demonstrate a higher propensity to actively participate in verbal practice and seek opportunities to use the language, resulting in expedited fluency enhancement (Kholmurodovna, 2024). In contrast, students experiencing anxiety may focus on their mistakes and fear negative evaluations, disrupting their speaking performance (Kholmurodovna, 2024).

Exposure to native speakers, real-life communication, and cultural immersion significantly impact fluency development (Kholmurodovna, 2024). Additionally, academic exploration of innovative strategies and methods to enhance speaking fluency in EFL contexts is imperative for researchers and practitioners in language education. The significance of English as an international language underscores the critical role of speaking abilities in effective communication, enabling speakers to engage in meaningful conversations without frequent pauses or hesitations (Segar & Asmawi, 2024).

Purpose of the Study

This study aimed to investigate the comparative effects of IAC and ICC on Iranian EFL learners' speaking accuracy and fluency. To address the objectives of the study, the following research questions were formulated by the researchers:

1. Does fostering IAC have any significant effect on speaking accuracy of Iranian EFL learners?
2. Does fostering IAC have any significant effect on speaking fluency of Iranian EFL learners?
3. Does fostering ICC have any significant effect on speaking accuracy of Iranian EFL learners?
4. Does fostering ICC have any significant effect on speaking fluency of Iranian EFL learners?
5. Is there any significant difference between fostering IAC and ICC with regard to their effects on EFL learners' speaking accuracy and fluency?

Methodology

This study employed a quasi-experimental design to investigate the effects of IAC and ICC on EFL learners' speaking accuracy and fluency. The independent variable was the type of competence developed (IAC and ICC), and the dependent variables were speaking accuracy and fluency, measured through pretests and posttests.

Participants

The participants in this study comprised 60 EFL learners, aged between 16 and 30 years (*Mage* = 23), encompassing both male and female individuals. All participants were Iranian, with Persian as their native language, and were studying EFL at an intermediate proficiency level. They were recruited from one of the top language schools in Tehran, Iran, and were randomly divided into two experimental groups, each consisting of 30 students. Both experimental groups received instruction from the same instructor. To ensure participants had similar mastery of speech at the outset, two pre-tests were administered: one for language proficiency and another for speaking fluency and accuracy, whose results confirmed no notable differences between the groups. This established a baseline and facilitated an accurate comparison of the treatments' effects on participants' speech fluency and accuracy across experimental groups. Furthermore, two female university lecturers from one of the top state universities in Tehran, Iran, both holding Ph.D. degrees in Applied Linguistics, with 10 years of teaching experience, served as the raters in this study.

Instrumentation

To conduct the current study, a Preliminary English Test (PET), a pretest, and a posttest of speaking were administered, respectively.

The Preliminary English Test

To ensure participant homogeneity in terms of language proficiency, the PET was administered. The PET, set at level B1 of the Common European Framework of Reference (CEFR), evaluates listening, reading, writing, and speaking skills in three sections. The first section assesses reading and writing skills, the second section evaluates listening skills, and the third section examines speaking ability. In this study, the researchers administered all sections of the PET to language learners. Participants were selected based on their scores falling within one standard deviation above and below the mean (i.e., Mean \pm 1 SD), yielding a sample of 60 individuals with comparable proficiency levels. The internal consistency reliability of the Preliminary English Test was confirmed by a Cronbach's alpha coefficient of 0.85.

Pretest of Speaking Fluency and Accuracy

To evaluate participants' initial speaking fluency and accuracy, a pretest was administered using a set of ten International English Language Testing System (IELTS) speaking questions appropriate for their proficiency level. These questions covered a range of familiar topics and were structured according to the standard IELTS speaking format: Part 1 (introduction and interview), Part 2 (long turn), and Part 3 (discussion). Each session lasted approximately 11–14 minutes, reflecting the typical duration of the IELTS speaking test. Participants' responses were recorded and assessed using the IELTS Speaking Band Descriptors to establish baseline performance.

Posttest of Speaking Fluency and Accuracy

A posttest was conducted following the treatment to measure changes in speaking fluency and accuracy. Similar to the pretest, it involved a different set of ten IELTS speaking questions aligned with participants' proficiency and the same three-part structure. Individual sessions again lasted about 11–14 minutes, and responses were recorded and evaluated using the IELTS Speaking Band Descriptors for consistency.

Assessing Speaking Fluency and Accuracy

In this study, speaking accuracy was measured by determining the Error-free T-units (EFT), reflecting the percentage of T-units without errors in terms of grammar or pronunciation (Foster & Tavakol, 2011; Lennon, 1991). Besides, speaking fluency was gauged by the speech rate formula, calculating syllables per minute (Kormos, 2006).

Procedure

The design of this study comprised two treatment conditions: IAC and ICC. Participants were randomly assigned to one of the two treatment groups, ensuring a balanced distribution of participants in terms of their initial speaking accuracy and fluency levels. The independent variable in this study was the type of competence developed through treatment, with two levels: IAC and ICC. The dependent variables were speaking accuracy and fluency, which were measured through pretests and posttests. The treatments were delivered over a specified period, with both groups receiving an equal amount of instructional time and intensity. Interventions consisted of a series of carefully designed activities and tasks aimed at fostering IAC and ICC. To meet the study's objectives, the PET was first administered to ensure participant homogeneity in terms of language

proficiency. The PET was conducted as a placement test during the first session to ensure all participants were at the intermediate level. Additionally, a speaking test was administered to assess the participants' initial speaking abilities.

The instruction for the first experimental group, focused on fostering IAC based on Young's framework (2011), comprised several sessions, each lasting 80 minutes and conducted once a week by a non-native English-speaking instructor over 5 weeks. In the first session, participants were given an overview of basic interactional concepts and the significance of IAC in language learning. The second session introduced participants to diverse conversation scenarios in English through role-plays and interactive exercises, emphasizing conversational management and turn-taking skills. Group discussions and activities were designed to encourage active participation and peer feedback. The third session exposed participants to conversational English literature and dialogues, with guided reading activities facilitating the analysis of conversational structures and pragmatic elements. The fourth session focused on critically analyzing real-life conversation transcripts, which enhanced interactional awareness and fostered critical thinking abilities. In the final session, another speaking test was administered to evaluate participants' proficiency after the treatment. A posttest was conducted to measure improvement and compare results with pretest scores, determining the effectiveness of the IAC intervention. This treatment aimed at enhancing participants' abilities to manage conversations effectively and to develop interactive speaking skills.

The instruction for the second experimental group, aimed at developing ICC, consisted of several distinct 80-minute sessions conducted once a week by a non-native English-speaking instructor over 5 weeks. The first session emphasized the importance of effective communication strategies in intercultural interactions, with practical activities designed to develop these skills,

including role-plays and case studies focusing on intercultural misunderstandings. In the second session, participants were introduced to diverse cultures within England through an interactive lecture supported by visual aids, with a focus on understanding cultural nuances and social norms. Group discussions and activities were included to promote engagement and collaboration among learners. The third session involved exploring diverse texts representing different aspects of English culture and social norms, with guided reading activities allowing for the analysis of cultural elements and themes to foster a deeper understanding of the multicultural nature of English society. The fourth session concentrated on critically analyzing news articles related to English culture, aiming to enhance reading comprehension skills and critical thinking abilities but with an added emphasis on applying these skills in real-life communication scenarios. In the final session, another speaking test was administered to evaluate participants' proficiency after the treatment. A posttest was conducted to assess improvement and compare results with pretest scores, evaluating the effectiveness of the ICC intervention. This treatment aimed at developing participants' ability to communicate effectively and appropriately across different cultural contexts.

To minimize potential biases, the researchers ensured that participants were not aware of the specific purpose of the study or the hypotheses being tested. The researchers were not involved in the pretest and posttest data collection, reducing the risk of experimenter bias. This quasi-experimental design allowed for a comparison of the effects of the two types of competence on EFL learners' speaking accuracy and fluency, providing valuable insights into the potential benefits of incorporating these competencies in English language teaching while adhering to all relevant ethical guidelines. Ethical considerations were meticulously maintained throughout the research process, including obtaining informed consent, guaranteeing voluntary participation,

respecting the right to withdraw at any stage, and ensuring strict confidentiality of participant information (Zaker, 2024).

Data analysis

The data were analyzed using SPSS, version 27. Descriptive statistics and tests of normality were conducted to determine the suitability of parametric or non-parametric inferential statistics for verifying the null hypotheses. Test scores that exhibited a non-normal distribution were analyzed using non-parametric tests. Two experiments were administered a proficiency test at the beginning of the research, and descriptive statistics and a Mann-Whitney U test were employed to determine homogeneity. The Mann-Whitney U test, a non-parametric test assessing significant differences between two independent samples, was selected as it is suitable for data that do not follow a normal distribution. Four Wilcoxon tests and two Mann-Whitney U tests were conducted to either accept or reject the null hypotheses. The Wilcoxon test, another non-parametric test, compared paired samples to assess whether their population mean ranks differ, making it appropriate for evaluating changes in scores across different conditions or time points within the same subjects. Additionally, interrater reliability for non-normal data sets was assessed using Spearman's rho, a non-parametric measure of rank correlation, given the involvement of two raters in the study.

Results

Prior to analyzing the data, the researchers would rather state the research hypotheses formulated in the study to help provide a reader-friendly account of the results.

H0 (1). IAC does not have any significant effect on the speaking accuracy of Iranian EFL learners.

H0 (2). IAC does not have any significant effect on the speaking fluency of Iranian EFL learners.

H0 (3). ICC does not have any significant effect on speaking accuracy of Iranian EFL learners.

H0 (4). ICC does not have any significant effect on speaking fluency of Iranian EFL learners

H0 (5). There is no significant difference between fostering IAC and ICC with regard to their effects on EFL learners' speaking accuracy and fluency.

Normality of the Data

According to Pallant et al. (2016), the most prevalent method for assessing the normality of data sets is the one-sample Kolmogorov-Smirnov test (KS-Test). Thus, the KS-Test was employed to evaluate the normality of all data sets, including the proficiency test, pretest, and posttest for both the IAC group (known as EIG) and the ICC group (known as E2G). The results of these evaluations are presented in Tables 1, 2, and 3.

Table 1.
One-sample Kolmogorov-Smirnov Test of the Proficiency Test of the Two Groups

		PETE1G	PETE2G
N		30	30
Normal Parameters ^{a,b}	Mean	31.93	31.66
	Std. Deviation	1.76	1.58
Asymp. Sig. (2-tailed)		.02*	.04*

As Pallant et al. (2016) maintained, a value is considered significant and therefore not normally distributed if it is smaller than or equal to .05 ($\alpha = .05$; $p \leq .05$); otherwise, the difference is not

substantial and the data is considered normal. According to the significant values shown in Table 1, the proficiency test scores of the E1 and E2 groups, which are .02 and .04, respectively, indicate non-normality of the data in these cases. Thus, non-parametric analyses are more appropriate for analyzing the proficiency test scores. The mean values for the E1 group (M = 31.93, SD = 1.76) and the E2 group (M = 31.66, SD = 1.56) are very similar, indicating that both groups had comparable proficiency levels at the outset.

Table 2 below shows the normality of the pretest and posttest scores of the E1 group.

Table 2.

One-sample Kolmogorov-Smirnov Test of the Pretest and Posttest Scores of Accuracy and Fluency of E1G

		PreAccuEx1	PreFluEx1	PostAccuEx1	PostFluEx1
N		30	30	30	30
Normal Parameters ^{a,b}	Mean	5.13	5.36	6.51	6.85
	Std. Deviation	.61	.73	.60	.69
Asymp. Sig. (2-tailed)		.00*	.00*	.00*	.00*
Pre: Pretest					
Post: Posttest					
Accu: Accuracy					
Flu: Fluency					

As the values reported in Table 2 reveal, the E1 group's pretest and posttest scores of accuracy and fluency exhibited a non-normal distribution, as their significance levels are all lower than the critical value ($\alpha = .05$; $p < .05$). Specifically, the significance values of the pretest and posttest accuracy and fluency scores of the E1 group are both .00. Therefore, non-parametric analyses were deemed more appropriate for the pretest and posttest scores of the E1 group. The mean values show that the first experimental group's accuracy improved from 5.13 to 6.51, and fluency increased from 5.36 to 6.85, highlighting notable progress in both aspects of speaking after the intervention.

The results of the normality check for the pretest and posttest scores of the E2 group are presented in Table 3 below.

Table 3.

One-sample Kolmogorov-Smirnov Test of the Pretest and Posttest of the E2 Group

		PreAccuEx2	PreFluEx2	PostAccuEx2	PostFluEx2
N		30	30	30	30
Normal Parameters ^{a,b}	Mean	5.18	5.15	5.76	5.43
	Std. Deviation	.53	.52	.61	.40
Asymp. Sig. (2-tailed)		.00*	.00*	.01*	.00*

Upon examining the normality values of the accuracy and fluency scores for the E2 group's pretest and posttest presented in Table 3, it is evident that the scores do not follow a normal distribution. The significance values for the pretest accuracy ($p = .00$) and fluency ($p = .00$), and for the posttest accuracy ($p = .01$) and fluency ($p = .00$), are all below the critical level of $\alpha = .05$. Consequently, non-parametric tests are the most suitable methods for analyzing the pretest and posttest data sets of the E2 group. The mean values show that the second experimental group's accuracy improved from 5.18 to 5.76, and fluency increased from 5.15 to 5.43, highlighting notable progress in both aspects of speaking after the intervention. However, this increase seems to be less significant and pronounced compared to the first experimental group, as mentioned in Table 2.

Interrater Reliability

The next step is to ensure the reliability of the instruments used in this study. The speaking test reliability index was assessed using Spearman's rho, given the presence of two raters and the non-normal distribution of all data sets. The results of the correlation between the scores assigned by the two raters are presented in Tables 4 and 5.

Table 4.

Inter-Rater Reliability of the Pretest, and Posttest Scores of Accuracy and Fluency of the E1G

		Pre Accu, 2 nd rater	Pre Flu, 2 nd rater	Post Accu, 2 nd rater	Post Flu, 2 nd rater
Pre Accu, 1 st rater	Spearman's rho	.97*			
	Sig. (2-tailed)	.00			
Pre-Flu, 1 st rater	Spearman's rho		.97*		
	Sig. (2-tailed)		.00		
Post Accu, 1 st rater	Spearman's rho			.94*	
	Sig. (2-tailed)			.00	
Post Flu, 1 st rater	Spearman's rho				.96**
	Sig. (2-tailed)				.00

According to Muijs et al. (2004), the strength of reliability values can be categorized as follows:

Weak: <0.1

Modest: <0.3

Moderate: <0.5

Strong: <0.8

Very Strong: ≥0.8

Comparing the reliability values obtained for the pretest and posttest scores of the EI group to the classification by Muijs et al. (2004) reveals that the values reported in Table 4 can be interpreted as strongly reliable. Specifically, the R-value for the inter-rater reliability of accuracy in the pretest is 0.97, and for the posttest, it is 0.94. Additionally, the R-value for the inter-rater reliability of fluency in the pretest is 0.97, and for the posttest, it is 0.96. Consequently, all the tests demonstrate high reliability, consistent with the classification by Muijs et al. (2004) as reported in Table 4. Therefore, the reliability values indicate that the EI group's tests are highly reliable.

Table 5.

Inter-Rater Reliability of the Pretest, and Posttest Scores of Accuracy and Fluency of the E2G

		Pre Accu, 2 nd rater	Pre Flu, 2 nd rater	Post Accu, 2 nd rater	Post Flu, 2 nd rater
Pre Accu, 1 st rater	Spearman's rho	.96*			
	Sig. (2-tailed)	.00			
Pre-Flu, 1 st rater	Spearman's rho		.97*		
	Sig. (2-tailed)		.00		
Post Accu, 1 st rater	Spearman's rho			.95*	
	Sig. (2-tailed)			.00	
Post Flu, 1 st rater	Spearman's rho				.96**
	Sig. (2-tailed)				.00

As indicated in Table 5, the reliability indices of the accuracy and fluency scores for the E2 group's pretest and posttest are all strongly reliable, with correlation values exceeding 0.9 ($r = 0.96$; $r = 0.97$; $r = 0.95$; $r = 0.96$). Consequently, the results of this investigation can be confidently generalized.

Homogeneity of the Groups

To compare the two groups' means on the PET and ensure they had the same level of general language proficiency before the main study, a Mann-Whitney U test was conducted. As shown by the results in Table 6, the E1G group ($M = 31.93$, $SD = 1.76$) and the E2G group ($M = 31.66$, $SD = 1.58$) had closely similar means on the PET test.

Table 6.
Descriptive Statistics; PET by Groups

	Group	N	Mean	Std. Deviation
PET	E1G	30	31.93	1.76
	E2G	30	31.66	1.58

The significance value reported in Table 7 is 0.61, which is higher than the critical value ($Z = 0.50$; $p = 0.61$; $\alpha = 0.05$). This indicates that the performance of the two experimental groups was not significantly different from each other in the pretreatment phase. In other words, there was no initial significant difference in the language proficiency of the participants in the two experimental groups.

Table 7.
Mann-Whitney U Test on the Proficiency Test of Two Groups

Mann-Whitney U	416.50
Wilcoxon W	881.50
Z	-.50
Asymp. Sig. (2-tailed)	.61

Addressing the Research Questions

For the main phase of data analysis, the researchers determined the appropriate statistical formulae to analyze each research question. To address the first four research questions that investigate the effect of EFL learners' IAC and ICC on their speaking accuracy and fluency, four Wilcoxon tests were conducted on the pretest and posttest scores of the experimental groups. Additionally, to assess the difference between the EFL learners' IAC and ICC and their speaking accuracy and fluency, two Mann-Whitney U tests were performed on the pretest and posttest scores of the two groups. It should be noted that in all analyses of the pretest and posttest speaking accuracy and fluency, the mean scores of the two raters were used.

Addressing Research Question 1

The first research question, "Does fostering IAC have any significant effect on the speaking accuracy of Iranian EFL learners?" was assessed using a Wilcoxon test. The results are presented in Tables 8 and 9 below.

Table 8.

Descriptive Statistics of the Pretest and Posttest of the Speaking Accuracy of the E1 Group

	Pretest	Posttest
N	30	30
Mean	5.13	6.51
Std. Deviation	.61	.60

The mean score of the participants in the E1 group's performance shows a positive impact of the treatment, as their mean score increased from 5.13 to 6.51 from the pretest to the posttest. However, the significance of this change needed to be statistically validated. Consequently, a related-samples Wilcoxon signed-rank test was employed, as the posttest speaking accuracy data set was found to be non-normal.

Table 9.

Wilcoxon Signed-Rank Test of the Pretest and Posttest of the Speaking Accuracy of the E1 Group

Total N	30
Z	-4.82
Asymptotic Sig.(2-sided test)	.00*

Table 9 compares the development in the performance of the E1 group participants from the pretest to the posttest. According to Table 9, the significant value obtained from the related-samples Wilcoxon signed-rank test is 0.00, which is lower than the standard 0.05 level ($Z = -4.82$; $p = 0.005$; $\alpha = 0.05$). This indicates a noteworthy difference in the participants' performance from the pretest to the posttest. Therefore, there was a considerable improvement in the performance of the participants in the IAC group from the pretest to the posttest, positively addressing the first research question. This finding suggests that EFL learners' participation in IAC had a substantial effect on their speaking accuracy. Thus, the first research null hypothesis, which proposed that "IAC does not have any significant effect on speaking accuracy," was rejected.

Addressing Research Question 2

The second research question focused on the effect of IAC on participants' speaking fluency. To analyze the data for this question, another related-samples Wilcoxon signed-rank test was utilized for the pretest speaking fluency scores, which were found to be non-normal.

Table 10.

Descriptive Statistics of the Pretest and Posttest of the Speaking Fluency of the E1 Group

	Pretest	Posttest
N	30	30
Mean	5.36	6.85
Std. Deviation	.73	.69

Table 10 reports the descriptive statistics for the E1 group, showing an increase in the mean scores from 5.36 in the pretest to 6.85 in the posttest. To determine the significance of this progress,

the results of another related-samples Wilcoxon signed-rank test for the pretest and posttest of the experimental group are presented in Table 11.

Table 11.

Wilcoxon Signed-Rank Test of the Pretest and Posttest of the Speaking Fluency of the Experimental Group

Total N	30
Z	-4.74
Asymptotic Sig.(2-sided test)	.00*

According to Table 12, the significance value indicating the difference in the E1 group's performance from the pretest to the posttest is 0.00, which is lower than the standard 0.05 level ($Z = -4.74$; $p = 0.00$; $\alpha = 0.05$). This suggests that the difference was substantial. In other words, the participants showed significant improvement in their posttest performance, likely due to the treatment they received. Table 12 also provides a clear answer to the second research question, "Does fostering IAC significantly affect speaking fluency?" The positive results indicate a considerable improvement in fluency from the pretest to the posttest. Consequently, the second null hypothesis, which proposed that "IAC does not have any significant effect on speaking fluency," was also rejected.

Addressing Research Question 3

The third research question, "Does fostering ICC have any significant effect on the speaking accuracy of Iranian EFL learners?" was examined using a Wilcoxon test, with the results presented in Tables 12 and 13 below.

Table 12.

Descriptive Statistics of the Pretest and Posttest of the Speaking Accuracy of the E2Group

	Pretest	Posttest
N	30	30
Mean	5.18	5.76
Std. Deviation	.53	.61

The mean score of the participants in the E2 group's performance showed a positive impact of the treatment, with their mean score increasing from 5.18 in the pretest to 5.76 in the posttest. However, to statistically validate the significance of this change, a related-samples Wilcoxon signed-rank test was employed, as the posttest speaking accuracy data set was determined to be non-normal.

Table 13.

Wilcoxon Signed-Rank Test of the Pretest and Posttest of the Speaking Accuracy of the E2 Group

Total N	30
Z	-4.04
Asymptotic Sig.(2-sided test)	.00*

Table 13 compares the performance development of the E2 group participants from the pretest to the posttest. According to the table, the significant value is 0.00, which is lower than the standard 0.05 level ($Z = -4.04$; $p = 0.00$; $\alpha = 0.05$), indicating a noteworthy improvement in the participants' performance from the pretest to the posttest. Although the improvement was significant, it was less pronounced compared to the interactional group. This suggests that the treatment had a significant effect on the E2 group's performance. Consequently, there was a substantial difference in the performance of participants in the ICC group from the pretest to the posttest, which positively answered the first research question. Thus, the third null hypothesis, which proposed that "ICC does not have any significant effect on speaking accuracy," was rejected. In other words, EFL learners' participation in ICC had a substantial effect on their speaking accuracy.

Addressing Research Question 4

The fourth research question focused on the effect of fostering ICC on participants' speaking fluency. To analyze the data for this question, another related-samples Wilcoxon signed-rank test was utilized for the pretest speaking fluency scores, which were found to be non-normal.

Table 14.

Descriptive Statistics of the Pretest and Posttest of the Speaking Fluency of the E2Group

	Pretest	Posttest
N	30	30
Mean	5.15	5.43
Std. Deviation	.52	.40

Table 14 provides descriptive statistics for the E1 group, showing an increase in mean scores from 5.15 in the pretest to 5.43 in the posttest. To determine the significance of this progress, the results of another related-samples Wilcoxon signed-rank test for the pretest and posttest of the experimental group are presented in Table 15.

Table 15.

Wilcoxon Signed-Rank Test of the Pretest and Posttest of the Speaking Fluency of the E2 Group

Total N	30
Z	-2.15
Asymptotic Sig.(2-sided test)	.03*

Table 15 provides a clear answer to the fourth research question. As shown, the significant value for the E2 group's pretest and posttest was 0.03, which is smaller than the 0.05 level ($Z = -2.15$; $p = 0.03$; $\alpha = 0.05$). This indicates a significant improvement in fluency from the pretest to the posttest. Therefore, the fourth null hypothesis, which proposed that "ICC does not have any significant effect on speaking fluency," was also rejected. The participants in the ICC group experienced a substantial increase in fluency after the intervention.

Addressing Research Question 5

To investigate the fifth research question, "Is there any significant difference between fostering IAC and ICC regarding their effects on EFL learners' speaking accuracy and fluency?" a set of non-parametric formulae was employed due to the non-normal data sets. First, descriptive statistics of the two groups' performance on the tests of speaking accuracy and fluency on both the pretest

and posttest occasions are presented to enable a comprehensive comparison from the beginning to the end of the study (Table 16).

Table 16.
Descriptive Statistics of the Speaking Accuracy and Fluency of the Pretest and Posttest of Two Groups

	PreAccu E1	PreAccu E2	PreFluE1	PreFluE2	PostAccuE1	PostAccuE2	PostFluE1	PostFluE2
Mean	5.13	5.18	5.36	5.15	6.51	5.76	6.85	5.43
Std. Deviation	.61	.53	.73	.52	.60	.61	.69	.40

Table 16 shows an increase in the mean scores for speaking accuracy for both groups from the pretest to the posttest. The mean score for E1G rose from 5.13 to 6.51, while E2G's mean score increased from 5.18 to 5.76.

Similarly, the mean scores for speaking fluency in the IAC and ICC groups also showed an upward trend. The mean score for speaking fluency in E1G increased from 5.36 in the pretest to 6.85 in the posttest, whereas E2G's mean score improved from 5.15 to 5.43.

Afterward, the posttest scores for speaking accuracy of both groups were compared using a Mann-Whitney U test.

Table 17.
Mann-Whitney U Test of the Speaking Accuracy of the Posttest of the Two Groups

Total N	60
Mann-Whitney U	174.50
Wilcoxon W	639.50
Z	-4.19
Asymptotic Sig.(2-sided test)	.00

To compare posttest accuracy between the interactional and intercultural groups, the Mann-Whitney U test results showed a significant difference between the two groups ($U = 174.50$, $Z = -4.19$, $p < 0.05$). The interactional group performed much better in posttest accuracy compared to the intercultural group.

The posttest scores of the two groups' speaking fluency were subsequently analyzed using a Mann-Whitney U test. Due to the non-normal distribution of the posttest scores for the experimental groups, the Mann-Whitney U test was deemed appropriate (Table 18).

Table 18.

Mann-Whitney U Test of the Speaking Fluency of the Posttest of the Two Groups

Total N	60
Mann-Whitney U	42.00
Wilcoxon W	507.00
Z	-6.16
Asymptotic Sig.(2-sided test)	.00

The significance value reported in Table 18 for the difference between the two groups' performance in the posttest of speaking fluency is 0.00, which is less than the standard 0.05 level ($U = 42.00$; $Z = -6.16$; $p = 0.00$; $\alpha = 0.05$). This indicates that the participants of the two groups performed considerably differently from each other. The interactional group outperformed the intercultural group by a large margin in posttest fluency, suggesting that the intervention had a more substantial effect on the interactional group's fluency development.

Consequently, there is a significant difference between fostering IAC and ICC regarding their effects on EFL learners' speaking accuracy and fluency. This conclusion is supported by the data in Tables 17 and 18, showing that the interactional group experienced greater gains in both accuracy and fluency compared to the intercultural group, with a more noticeable improvement in fluency. These findings are corroborated by the Mann-Whitney U tests.

Therefore, the fifth null hypothesis, which stated that "There is no significant difference between fostering IAC and ICC with regard to their effects on EFL learners' speaking accuracy and fluency," was rejected.

Discussion

This study explored the comparative effects of fostering IAC versus ICC on Iranian EFL learners' speaking accuracy and fluency. The study empirically assessed the improvement of the dependent variables, specifically EFL learners' speaking accuracy and fluency, with IAC and ICC as the two levels of the independent variable. The statistical analyses indicated that both IAC and ICC positively affected EFL learners' speaking accuracy (Hypotheses 1 and 4).

These results emanate from the fact that structured opportunities for practice and refinement are integral to both IAC and ICC. Furthermore, IAC and ICC were found to enhance EFL learners' speaking fluency (Hypotheses 3 and 4). These results can be attributed to the emphasis on continuous language use and interaction present in both methodologies. A significant difference was observed between the effects of IAC and ICC on the enhancement of accuracy and fluency in EFL learners' speaking (Hypothesis 5). The IAC group showed greater improvements in both accuracy and fluency compared to the ICC group, particularly in fluency, as indicated by the Mann-Whitney U tests.

These results suggest that IAC tasks offer more immediate and widespread benefits in speaking fluency. The results emanate from the fact that IAC, by immersing learners in dynamic interactions, provides a robust platform for practicing spontaneous speech, thereby improving fluency. Similarly, ICC, through its focus on cultural contexts, fosters a deep understanding of language nuances, contributing to accuracy. These results can be attributed to the structured nature of IAC and ICC, which both offer targeted approaches for enhancing speaking abilities. These results suggest that IAC, by emphasizing direct interaction and pragmatic competence, leads to higher fluency gains compared to ICC. These findings reinforce the importance of practical, real-

world conversation practice in developing speaking fluency, as provided by IAC, while ICC's focus on cultural nuances aids in improving accuracy.

These findings are echoed in the literature by Taguchi et al. (2016), who discovered that ICC positively affects social interactions and enhances the development of speech act production by reducing communication apprehension and boosting confidence. In the same vein, several previous studies have underscored the beneficial effects of IAC and ICC on improving EFL learners' speaking abilities (e.g., Barraja-Rohan, 2013; Dai, 2024; Eren, 2024; Haregu, et al., 2024; Kholmurodovna, 2024; Sabet & Chapman, 2023; Tai & Dai, 2024; Zhang & Zhou, 2019). For instance, Barraja-Rohan (2013) demonstrated that teaching IAC effectively enhances speaking performance and has significant impacts in international contexts. Similarly, Roever and Ikeda (2024) identified a positive relationship between speaking proficiency and IAC, aligning with this study's findings.

In line with these findings, Roever and Kasper (2018) argued that ICC significantly improves speaking accuracy by enhancing conversational skills such as turn-taking and pragmatics. Moreover, Kural (2020) supported these findings by highlighting the impact of ICC training and recognizing English as a vital tool for global communication. Kural's study showcased the long-term advantages of an intercultural development course, which effectively met students' communication and adaptation needs in their host countries. Additionally, Mirzaei and Forouzandeh (2013) identified a strong, positive relationship between L2 learners' ICC and their motivation to learn the language.

In much the same vein, Azizpour (2021) underscored the critical importance of integrating English culture and social norms into EFL teaching and learning practices. She pointed out that the endeavor of EFL teaching is inseparable from imparting its cultural dimensions. Consequently,

cultural awareness emerges as a cornerstone in the context of English language learning and teaching (Zake, 2016). The study elucidated that EFL learners can attain communicative success only through the harmonious integration of linguistic competence and cultural awareness. Furthermore, the research highlighted that cultural proficiency significantly enhances learners' ability to navigate diverse socio-cultural contexts, thereby facilitating more meaningful and effective communication. Further, Azizpour and Hashamdar (2023), in their study of the professional EFL teacher, explored Iranian university lecturers' attitudes toward EFL teacher professionalism and highlighted that fostering students' cultural awareness is one of the most crucial requirements of professional EFL teachers.

On the contrary, Nicol (2008) pointed out that teaching culture in some countries presents challenges due to local teachers' potential lack of proficiency in the target language culture and foreign teachers' difficulty in addressing local needs. Nicol's (2008) findings in Brunei illustrated that expatriate EFL teachers often bring a shared set of beliefs and values about optimal language teaching and learning methods. These educators may perceive the local learning culture in Brunei as diametrically opposed to their own values, potentially leading to conflicts (Nicol, 2008).

In contrast to the results of the current study, Nicol (2008) asserted that fostering intercultural competence among EFL students, while advantageous, entails several multifaceted challenges. Initially, students might experience cultural overwhelm, whereby the introduction of diverse cultural perspectives leads to confusion and frustration, potentially hindering their learning process. This sense of overwhelm may impede students' ability to fully engage with the material, thereby reducing the effectiveness of the educational experience. Secondly, resistance to change is a significant issue, as both students and educators may exhibit reluctance to embrace unfamiliar cultural elements. This reluctance can manifest in various forms, such as passive resistance, overt

opposition, or disengagement, all of which can obstruct the integration of intercultural content into the curriculum. Furthermore, without careful and deliberate guidance, there exists the risk of students forming or reinforcing cultural stereotypes. Stereotyping not only undermines the goal of fostering genuine intercultural understanding but can also perpetuate biases and prejudices, which are counterproductive to the objectives of intercultural education. Additionally, the implementation of intercultural competence programs is resource-intensive, necessitating considerable investment in time, training, and materials. This resource demand can be particularly challenging in educational settings where resources are already limited, making it difficult to sustain such programs in the long term. Finally, potential misunderstandings are an inherent risk if intercultural competence is not meticulously taught. These misunderstandings may arise from misinterpretations of cultural norms, values, or practices, leading to miscommunication and conflicts that can detract from the learning experience. Hence, while the promotion of intercultural competence is imperative for fostering global awareness and effective communication, these challenges necessitate careful management to ensure successful and effective integration within EFL education (Nicol, 2008).

In the same vein, Moorhouse et al. (2023) put under the spotlight the significance of interaction in English language classrooms and highlighted the specific skills teachers need to utilize interaction as a learning tool, referred to as classroom IAC. Similarly, Abdulrahman and Ayyash (2019) noted that interactional exercises are crucial for enhancing speaking accuracy, further supporting the outcomes of this study. Likewise, Chaya and Inpin (2020) observed that augmenting learners' cultural knowledge and activities leads to improved speaking skills, resonating with this study's findings. Besides, Roever and Kasper (2018) emphasized that ICC enhances speaking accuracy through improved conversational skills such as turn-taking and pragmatics, echoing the

results found in this study. Further, Abdulrahman and Ayyash (2019) underscored the significance of linguistic, communicative, and interactional competencies in second language education, mirroring the impact seen in the current research (Hackett et al., 2023; Juliastuti et al., 2023; Pramastiwi, 2024; Ruzigul, 2024; Tai & Dai, 2024).

In line with the findings of this study, D'Orazzi and Marangell (2025) underscore the significance of ICC in fostering meaningful student interactions within internationalized university settings. While both studies emphasize the role of ICC in enhancing communication, the present study extends this perspective by demonstrating that ICC not only facilitates intercultural exchanges but also contributes to speaking accuracy in EFL learners.

On the contrary, Li et al. (2025) highlight the mediating roles of interaction quantity and quality in shaping foreign language learners' self-perceived proficiency and intercultural competence. Their study suggests that frequent and high-quality intercultural interactions enhance learners' confidence and competence, a finding that complements the current study's assertion that ICC fosters pragmatic awareness and culturally nuanced communication. However, the current study differentiates itself by focusing on the comparative effects of ICC and IAC, revealing that while ICC improves accuracy, IAC is more effective in enhancing fluency.

Furthermore, this study's findings align with Mawalim et al. (2025), who explore multimodal modeling of structured speaking skill indices in young adolescents, emphasizing the significance of integrating various linguistic and cognitive competencies for effective communication. While their study focuses on structured modeling approaches, the present study underscores the practical application of interactional and intercultural competencies in real-world EFL learning contexts.

Similarly, Komila (2025) advocates for an integrated approach to developing speaking skills, combining cognitive and linguistic competencies to enhance learners' oral proficiency. This

perspective aligns with the present study's conclusion that a balanced integration of ICC and IAC fosters holistic communication skills. Komila's (2025) approach primarily focuses on cognitive and linguistic aspects, whereas the current study highlights the dynamic interplay between interactional strategies and cultural awareness in shaping EFL learners' speaking fluency and accuracy.

Conclusion

This study aimed to investigate the comparative effects of fostering IAC versus ICC on Iranian EFL learners' speaking accuracy and fluency. The rejection of the first and third null hypotheses demonstrated that language learners' speaking accuracy could be significantly enhanced through the implementation of both IAC and ICC methodologies. Similarly, the rejection of the second and fourth null hypotheses indicated that language learners' speaking fluency improves after receiving both IAC and ICC training. Further analysis revealed that IAC plays a critical role in SLA by facilitating effective communication and comprehension. Students engaging in interactive environments develop language skills more rapidly (Jafarigohar et al., 2021), with increased confidence and motivation, leading to better language acquisition outcomes. On the other hand, ICC was found to positively influence speaking accuracy and fluency, as learners with high ICC demonstrated more accurate language use and smoother speech patterns. This competency allows for the modification of communication strategies, producing more effective and confident speakers (Kural, 2020). The study also demonstrated that IAC enhances learners' abilities to manage real-life conversations, making it an indispensable element of SLA. Moreover, ICC fosters a deeper appreciation of cultural subtleties, enabling more natural and fluent interactions in English. Finally, the fifth null hypothesis revealed a significant difference in the effects of IAC and ICC on EFL

learners' speaking accuracy and fluency, with the interactional group showing greater improvements, especially in fluency. This suggests that IAC consistently enhances both accuracy and fluency by focusing on conversational mechanics and pragmatic skills (Roever & Ikeda, 2024).

The findings of this study have significant implications for EFL teachers, learners, and materials developers. EFL teachers might consider adopting an integrated approach, combining both interactional and intercultural training in their curricula to provide comprehensive benefits and enhance overall speaking proficiency. Instructional strategies such as role plays, cultural immersion activities, and interactive dialogues may be particularly effective. Additionally, educational programs might be developed to enhance learners' intercultural communication skills, focusing on understanding intercultural issues in classroom tasks. EFL learners may benefit from mastering conversational strategies, turn-taking, and active listening to improve language precision and fluency. IAC might help learners navigate real-time communication, fostering more accurate and confident speech, while ICC may enrich their cultural understanding through meaningful interactions. For materials developers, creating resources that include role-plays and simulations to enhance IAC, designing exercises that teach effective communication strategies, and incorporating authentic texts and audio-visual materials might immerse students in diverse cultural and interactional contexts, improving both accuracy and fluency.

The study faced some limitations. One notable limitation is that the research was conducted exclusively in Tehran, which may restrict the generalizability of the findings to language learners in other cities in Iran. Future researchers can select participants from various cities in Iran to enhance the generalizability of the findings. Additionally, the study's participant selection was limited to a specific proficiency level, potentially impacting the broader applicability of the results to learners with varying levels of language proficiency. Future research may consider conducting

long-term studies to observe the sustained effects of IAC and ICC on EFL learners' speaking skills. It is also recommended to examine factors such as age and gender individually, as well as the psychological effects of these competencies across different demographics. Further, using qualitative methodologies to explore participants' learning processes will provide a more comprehensive understanding. Exploring the effects of these competencies in various cultural and educational settings will help identify context-specific strategies, enabling educators to design more effective instructional approaches.

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Biodata

Alireza Zaker is a full-time Assistant Professor of Applied Linguistics (TEFL) at Islamic Azad University (IAU), Karaj Branch, Iran. He earned his Ph.D. in TEFL from the Science and Research Branch of IAU in Tehran, Iran. He has been teaching at various academic levels at the university since 2013. He is also a member of the Research Council of the Department of English Translation and English Language Teaching at IAU, Karaj. Over the years, he has taught a variety of graduate and undergraduate courses, including Advanced Research, Language Assessment, Language Teaching Methodology, Language Learning Theories, and Teaching Practicum. Additionally, he is a former faculty member at the English Language Research Center of IAU, South Tehran Branch.

Shiva Azizpour holds a Ph.D. in Applied Linguistics (TEFL) from Urmia University and is a lecturer in the Department of English Language and Literature at Allameh Tabataba'i University, and Islamic Azad University of Karaj, Iran. She has authored several university textbooks and numerous papers in EFL teacher education, second language acquisition (SLA), language

teaching, and sociolinguistics. She has also presented her research at various national and international conferences on Applied Research in Language Studies.